PLEASE NOTE

This image contains more than one label approved for this product on this date.

279-3370 10-30-2009 1/34

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF
PREVENTION, PESTICIDES AND
TOXIC SUBSTANCES

Mr. Michael C. Zucker
Senior Registration & Label Specialist
FMC Corporation – Agricultural Product Group
1735 Market Street
Philadelphia, PA 19103

OCT 30 2009

RE: Notification of an Alternate Brand Name: Crossing CA Herbicide
EPA Registration Number: 279-3370
Date of Submission: September 21, 2009

Dear Mr. Zucker:

The Agency is in receipt of your Application for Pesticide Notification under Pesticide Registration Notice (PRN) 98-10 dated September 21, 2009, for the above mentioned product. The Registration Division (RD) has conducted a review of this request for its applicability under PRN 98-10 and finds that the actions requested fall within the scope of PRN 98-10. The label submitted with the application has been stamped "Notification" and will be placed in our records.

If you have any questions, please me directly at 703-305-6249 or Joyce Edwards of my staff at 703-308-5479.

Sincerely,

Linda Arrington
Notifications & Minor Formulations Team Leader
Registration Division (7505P)
Office of Pesticide Programs

Please read instructions on reverse before completing form. Form Approved. OMB No. 2070-0060. Approval expires 2-28-95

EPA

United States
Environmental Protection Agency
Washington, DC 20460

- [ ] Registration
- [ ] Amendment
- [x] Other

OPP Identifier Number

Application for Pesticide - Section I

1. Company/Product Number	2. EPA Product Manager	3. Proposed Classification
FMC Corporation/ 279 -3370	Ms. Joanne I. Miller	[x] None [ ] Restricted
4. Company/Product (Name)	**PM#**	
FMC Corporation/Crossing CA Herbicide	23	

5. Name and Address of Applicant *(Include ZIP Code)*

FMC Corporation - Agricultural Products Group
1735 Market Street
Philadelphia, PA 19103

[ ] *Check if this is a new address*

6. Expedited Reveiw. In accordance with FIFRA Section 3(c)(3)(b)(i), my product is similar or identical in composition and labeling to:

EPA Reg. No. 279 - 3370

Product Name F6285 4F CAL Herbicide

Section - II

- [ ] Amendment - Explain below.
- [ ] Resubmission in response to Agency letter dated _____
- [ ] Notification - Explain below.
- [ ] Final printed labels in repsonse to Agency letter dated _____
- [ ] "Me Too" Application.
- [ ] Other - Explain below.

NOTIFICATION

OCT 3 0 2009

Explanation: Use additional page(s) if necessary. (For section I and Section II.)

Notification of an alternate brand name per PR Notice 98-10.
This notification is consistent with the provisions of PR Notice 98-10 and EPA regulations at 40 CFR 152.46, and no other changes have been made to the labeling or the confidential statement of formula of this product. I understand that it is a violation of U.S.C. Sec.1001 to willfully make any false statement to EPA. I further understand that if this notification is not consistent with the terms of PR Notice 98-10 and 40 CFR 152.46, this product may be in violation of FIFRA and I may be subject to enforcement action and penalties under sections 12 and 14 of FIFRA.

Section - III

1. Material This Product Will Be Packaged In:

Child-Resistant Packaging	Unit Packaging	Water Soluble Packaging	2. Type of Container
[ ] Yes [x] No	[ ] Yes [x] No	[ ] Yes [x] No	[ ] Metal [x] Plastic [ ] Glass [ ] Paper [ ] Other (Specify)
** Certification must be submitted*	If "Yes" Unit Packaging wgt. / No. per container	If "Yes" Package wgt / No. per container	

3. Location of Net Contents Information	4. Size(s) Retail Container	5. Location of Label Directions
[ ] Label [x] Container		[x] on label/container

6. Manner in Which Label is Affixed to Product: [x] Lithograph / Paper glued / Stenciled [ ] Other _____

Section - IV

1. Contact Point *(Complete items directly below for identification of individual to be contacted, if necessary, to process this application.)*

Name	Title	Telephone No. (Include Area Code)
Michael C. Zucker	Senior Registration & Label Specialist	(215)293-5876

Certification

I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowlingllly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.

6. Date Application Received (Stamped)

2. Signature	3. Title	4. Typed Name	5. Date
Michael C. Zucker	Senior Registration & Label Specialist	Michael C. Zucker	September 21, 2009

FMC Agricultural Products

FMC Corporation
1735 Market Street
Philadelphia, PA 19103

215.299.6000 Phone
215.299.6468 Fax

www.fmc.com

September 21, 2009

United States Environmental Protection Agency
Document Processing Desk (Notifications)
Office of Pesticide Programs (7504P)
One Potomac Yard, Room S-4900
2777 South Crystal Drive
Arlington, VA 22202

Dear Ms. Miller:

Subject: Crossing CA Herbicide
EPA Reg. No. 279-3370

Notification of an Alternate Brand Name per PR Notice 98-10.

FMC is notifying the Agency that Crossing CA Herbicide is an alternate brand name for F6285 4F CAL Herbicide.

Enclosed please find the following documents:

- Cover Letter
- Form 8570-1
- One copy of the Crossing CA Herbicide label.

If you have any questions, or if I can be of any further assistance, please feel free to contact me at (215) 299-5876 or by e-mail at mike_zucker@fmc.com.

Sincerely,

Michael C. Zucker
Senior Registration & Label Specialist
FMC Corporation
Agricultural Products Group

FMC

Crossing CA
Herbicide

For Use Only by Individuals/Firms Certified And/or Licensed as Pesticide Applicators

NOTIFICATION
OCT 30 20[illegible]

EPA Reg. No. 279-3370 EPA Est. 279-

Active Ingredient: By Wt. (1)	
Sulfentrazone	39.6%
Inert Ingredients:	60.4%
	100.0%

Contains 4 pounds of active ingredient per gallon.
U.S. Patent No. 4,818,275

KEEP OUT OF REACH OF CHILDREN

CAUTION

FIRST AID (2.0)

If Inhaled
Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice.
If on Skin or Clothing
Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.
If in Eyes
Hold eye open and rinse slowly and gently with water for 15- 20 minutes. Remove contact lenses, if present, after the first 5 minutes. Then continue rinsing eye. Call a poison control center or doctor for treatment advice.
If Swallowed
Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person.

HOTLINE NUMBER (3)

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-331-3148 for emergency medical treatment information.

Note to Physician: Sulfentrazone is expected to have low oral and dermal toxicity, and moderate inhalation toxicity. It is expected to be slightly irritating to the skin and minimally irritating to the eyes. Treatment is otherwise controlled removal of exposure followed by symptomatic and supportive care.

See other sections for precautionary information.

ACTIVE INGREDIENT MADE IN CHINA AND FORMULATED AND PACKAGED IN USA.

From FMC

Group 14 Herbicide

ATTENTION

-Although this label may appear similar to the label of a product you may have used, there may be important label differences. Users must read, understand and strictly follow all label directions, precautions and restrictions.

-It is the user's responsibility to be sure the product is approved for sale or use on the intended crop and for use in the specific geographic area.

-It is the user's responsibility to be aware of and to follow all State or local precautions or restrictions not appearing on this product label.

-Prior to purchase or use of this product, read the Terms of Sale or Use and Limitation of Warranty and Liability on page 2 of this label. If the terms and conditions are unacceptable, return the product immediately in the original and unopened container.

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PRECAUTIONARY STATEMENTS (4.0)

Hazards to Humans and Domestic Animals (4.1)

Caution

Causes moderate eye irritation. Harmful if inhaled, swallowed, or absorbed through skin. Avoid breathing vapor or spray mist. Avoid contact with skin, eyes or clothing.

Personal Protective Equipment (PPE) (4.2)

Applicators and other handlers must wear: long-sleeved shirt and long pants, chemical-resistant gloves made of any waterproof material such as polyethylene or polyvinyl chloride, and shoes plus socks.

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product. Do not reuse them. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

User Safety Recommendations:

Users should:

• Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

Environmental Hazards (4.3)

This pesticide is toxic to marine/estuarine invertebrates. Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Drift and runoff may be hazardous to terrestrial and aquatic plants in neighboring areas. Do not contaminate water when disposing of equipment washwaters or rinsate.

Groundwater advisories: This chemical is known to leach through soil into groundwater under certain conditions as a result of label use. Use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination.

Do not use on coarse soils classified as sand, which have less than 1% organic matter.

Surface water advisory: Sulfentrazone can contaminate surface water through spray drift. Under some conditions, sulfentrazone may also have a high potential for runoff into surface water (primarily via dissolution in runoff water), for several to many months post-application. These include poorly draining or wet soils with readily visible slopes toward adjacent surface waters, frequently flooded areas, areas overlying extremely shallow groundwater, areas with in-field canals or ditches that drain to surface water, areas not separated from adjacent surface waters with vegetated filter strips, and areas over-lying tile drainage systems that drain to surface waters.

Physical/Chemical Hazards (4.4)

Do not use or store near heat or open flame.

DIRECTIONS FOR USE (5.0)

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

For Use Only in the State of California.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application.

Do not apply more than the allowed amount of Crossing CA Herbicide per acre per twelve-month period as stated in Table 2. The twelve-month period is considered to begin upon the initial Crossing CA Herbicide application.

For any requirements specific to your State or Tribe, consult the Agency responsible for pesticide regulation.

AGRICULTURAL USE REQUIREMENTS (5.1)

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry interval. These requirements only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 12 hours.

Personal Protective Equipment (PPE) required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water is: Coveralls over long-sleeved shirt and long pants, chemical-resistant gloves made of any waterproof material, and shoes plus socks.

Non-Agricultural Use Requirements

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries, or greenhouses.

Re-entry Statement: Do not allow people (other than applicator) or pets on treatment area during application. Do not enter treatment area until spray has dried.

STORAGE AND DISPOSAL (5.2)

Do not contaminate water, food or feed by storage or disposal. Do not use or store around the home.

Pesticide Storage
Store product in original container only, away from other pesticides, fertilizer, food or feed.
Store in a cool, dry place and avoid excess heat.

In Case of Spill
In case of spill, avoid contact, isolate area and keep out animals and unprotected persons. Confine spills. Call FMC: (800) 331-3148.

To Confine Spill
To confine spill: If liquid, dike surrounding area or absorb with sand, cat litter or commercial clay. If dry material, cover to prevent dispersal. Place damaged package in a holding container. Identify contents.

Pesticide Disposal
Waste resulting from the use of this product may be disposed of at an approved waste disposal facility.

Container Disposal
Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: (For containers greater than 5 gallons) Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. (For containers 5 gallons or less) Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow
begins to drip. Repeat this procedure two more times. Triple rinse (or equivalent). Then offer for recycling if available, or reconditioning, or puncture and dispose of in a sanitary landfill, or incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of
smoke.

Returnable/Refillable Containers - Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. ¶ To clean the container before final disposal, empty the remaining contents into application equipment or mix tank. Fill the container about 10% full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times.

CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY (6.0)

Notice: Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before buying or using this product. If the terms are not acceptable, return the product at once, unopened, and the purchase price will be refunded.

The Directions for Use of this product must be followed carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Crop injury, ineffectiveness, or other unintended consequences may result because of such factors as manner of use or application, weather or crop conditions beyond the control or FMC or Seller. All such risks shall be assumed by Buyer and User, and, to the extent consistent with applicable law, Buyer and User agree to hold FMC and Seller harmless for any claims relating to such factors.

Seller warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated on the Directions for Use when used in accordance with the directions under normal conditions of use. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, FMC MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE, NOR ANY OTHER EXPRESS OR IMPLIED WARRANTIES WITH RESPECT TO THE SELECTION, PURCHASE, OR USE OF THIS PRODUCT. Any warranties, express or implied, having been made are inapplicable if this product has been used contrary to label instructions, or under abnormal conditions, or under conditions not reasonably foreseeable to (or beyond the control of) seller or FMC, and, to the extent consistent with applicable law, buyer assumes the risk of any such use.

To the extent consistent with applicable law, FMC or seller shall not be liable for any incidental, consequential or special damages resulting from the use or handling of this product. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF FMC AND SELLER FOR ANY AND ALL CLAIMS. LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT OR, AT THE ELECTION OF FMC OR SELLER, THE REPLACEMENT OF THE PRODUCT.

This Conditions of Sale and Limitation of Warranty and Liability may not be amended by any oral or written agreement.

RESISTANCE MANAGEMENT (7.0)

Some weeds are known to develop resistance to herbicides that have been used repeatedly. While the development of herbicide resistance is well understood, it is not easily predicted. Therefore herbicides should be used in conjunction with the resistance management strategies in the area. Consult the local or State agricultural advisors for details. If herbicide resistance should develop in the area, this product used alone may not continue to provide sufficient levels of weed control. If the reduced levels of control can not be attributed to improper application techniques, improper use rates, improper application timing, unfavorable weather conditions or abnormally high weed pressure, a resistant strain of weeds may have developed.

To reduce the potential for weed resistance use this product in a rotation program with other classes of chemistry and modes of action. Always apply this product at the recommended rates and in accordance with the use directions. Do not use less than recommended label rates alone or in tank mixtures. Do not use reduced rates of the tank mix partner. For optimum performance, scout fields carefully and begin applications when weeds are smaller rather than larger. If resistance is suspected, contact the local or State agricultural advisors.

GENERAL INFORMATION (8.0)

Crossing CA Herbicide is a selective soil-applied herbicide for the control of susceptible broadleaf, grass and sedge weeds. Crossing CA Herbicide is formulated as a 4 pounds per gallon flowable containing the active ingredient, sulfentrazone. **If adequate moisture (1/2" to 1") from rainfall or irrigation is not received within 7 to 10 days after the Crossing CA Herbicide treatment, a shallow incorporation may be needed to obtain desired weed control.** When activating moisture is received after dry conditions, Crossing CA Herbicide will provide a reduced level of control of susceptible germinating weeds. Soil applications of Crossing CA Herbicide must be made before crop seed germination to prevent injury to the emerging crop seedlings. When applications after planting are delayed, injury may occur if seeds are germinating or if they are located near the soil surface

Observe all instructions, crop restrictions, mixing directions, application precautions, replanting directions, rotational crop guidelines and other label information of each product when tank mixing with Crossing CA Herbicide.

Proper handling instructions: Crossing CA Herbicide may not be mixed or loaded within 50 feet of any wells (including abandoned wells and drainage wells), sinkholes, perennial or intermittent streams and rivers, and natural or impounded lakes and reservoirs. This setback does not apply to properly capped or plugged abandoned wells and does not apply to impervious pads or properly diked mixing/loading areas.

Operations that involve mixing, loading, rinsing, or washing of this product into or from pesticide handling or application equipment or containers within 50 feet of any well are prohibited unless conducted on an impervious pad constructed to withstand the weight of the heaviest load that may be positioned on or moved across the pad. Such a pad shall be designed and maintained to contain any product spills or equipment leaks, container or equipment rinse or washwater, and rainwater that may fall on the pad. Surface water shall not be allowed to either flow over or from the pad, which means the pad must be self-contained. The pad shall be sloped to facilitate material removal. An unroofed pad shall be of sufficient capacity to contain at a minimum 110% of the capacity of the largest pesticide container or application equipment on the pad. A pad that is covered by a roof of sufficient size to completely exclude precipitation from contact with the pad shall have a minimum containment capacity of 100% of the capacity of the largest pesticide container or application equipment on the pad. Containment capacities as described above shall be maintained at all times. The above specific minimum containment capacities do not apply to vehicles when delivering pesticide shipments to the mixing/loading site. States may have in effect additional requirements regarding wellhead setbacks and operational containment.

Product must be used in a manner that will prevent back siphoning in wells, spills or improper disposal of excess pesticide, spray mixtures or rinsates.

GENERAL APPLICATION INSTRUCTIONS (9.0)

Crossing CA Herbicide may be applied to soil as a preplant incorporated treatment or as a pre-emergence (prior to weed and/or crop emergence) surface application. Additional application methods include post-plant treatments, over-the-top and layby, in various crops. Application methods are defined in the following Crop Use Directions sections.

Preplant incorporated treatments require a uniform surface application followed by incorporation. Do not incorporate to a depth greater than 2 inches which may result in poor weed control. Care must be taken not to create overlaps in treated zones due to soil movement, which will result in excessive Crossing CA Herbicide rates that could result in adverse crop response.

All soil applications and the residual activity of post-plant applications of Crossing CA Herbicide require adequate moisture for herbicidal activation. The ultimate amount of moisture, whether supplied by rainfall or irrigation, is dependent on several factors. These factors include but are not limited to existing soil moisture at application, soil type, organic matter and tilth. In crop situations dependent on rainfall, Crossing CA Herbicide can await activating moisture for extended periods (10 to 14 days or longer) depending on the soil parameters described above. Once activated, Crossing CA Herbicide will provide activity on existing weeds. The level of activity will depend on the weed species and their size at time of activation. Where irrigation is not available and rainfall has not provided activation, particularly for surface applications of Crossing CA Herbicide, a shallow incorporation is recommended for destruction of any germinating weeds and to incorporate Crossing CA Herbicide. Herbicide incorporation will initiate the process of activation with existing soil moisture. In circumstances where prolonged periods without rainfall and/or irrigation is not possible, alternative or additional weed management practices (cultivation or post-applied herbicides) may be required.

Extreme care must be exercised and the Crop Specific Use Directions followed exactly in crops allowing post plant applications of Crossing CA Herbicide. Over-the-top and lay-by applications will provide contact and residual weed control, depending on species. The addition of surfactants may increase contact weed control performance but may also increase the risk of adverse crop response as well.

CALIFORNIA ONLY SPECIFIC RESTRICTIONS ON APPLICATIONS OF CROSSING CA HERBICIDE. (9.1)

Artificial Recharge Basins. Do not use below the high water line inside artificial recharge basins (a surface facility, such as an infiltration pond or basin, or spreading ground that is specifically designed and managed to increase the infiltration of introduced surface water supplies into a ground water basin), unless this product is applied six months or more before the basin is used to recharge ground water.

Unlined Canals and Ditches. Do not use below the high water line inside unlined canals and ditches unless either (a) the pesticide user can document that the percolation rate of the canal or ditch is equal to or less than 0.2 inches per hour (0.002 gallons per minute per square foot), or (b) the pesticide is applied six months before water is run in the canal or ditch.

Rights-of-Way. Do not use on engineered rights-of-way in areas established by the California Department of Pesticide Regulation as leaching or runoff ground water protection areas* unless either (a) any runoff from the treated right-of-way shall pass through a noncrop fully vegetated area adjacent, and equal in area, to the treated area, or spread out onto an adjacent unenclosed fallow field that is at least 300 feet long and that will not be irrigated for six months following application with the exception of the addition of adequate moisture that is required for herbicidal activation following application as described under General Application Instructions, with full consideration of any plantback restrictions, or (b) the property operator complies with any permit issued pursuant to the storm water provisions of the federal Clean Water Act eprtaining to the treated area.

Runoff Ground Water Protection Areas. Do not use in areas identified by the California Department of Pesticide Regulation as a runoff ground water protection areas* unless one of the following management practices can be met:

(a) Soil disturbance. Within seven days before this product is applied, the soil to be treated shall be disturbed by using a disc, harrow, rotary tiller, or other mechanical method. This subsection does not apply to the area to be treated that is immediately adjacent to the crop row and that does not exceed 33 percent of the distance between crop rows or, in citrus, to the band from the tree row to the dripline; or

(b) Incorporation of the pesticide. Within 48 hours after the day this product is applied, the pesticide shall be incorporated on at least 90 percent of the area treated; using a disc, harrow, rotary tiller, or other mechanical method, or by sprinkler or low flow irrigation, including chemigation where allowed by the label, using a minimum of ¼ inch of irrigation water and a maximum of one inch as described under General Application Instructions, at application rates that do not cause surface water runoff from the treated property or to wells on the treated property; or

(c) Band treatment. This product is applied as a band treatment immediately adjacent to the crop row so that not more than 33 percent of the distance between rows is treated or, in citrus, not more than the area from the tree row to the dripline is treated; or

(d) Timing of application. This product is applied between April 1 and July 31; or

(e) Retention of runoff on field. For six months following the application, the field shall be designed, by berms, levees, or nondraining circulation systems, to retain all irrigation runoff and all precipitation on, and drainage through, the field. The retention area on the field shall not have a percolation rate of more than 0.2 inches per hour (5 inches per 24 hours); or

(f) Retention of runoff in a holding area off the field. For six months following the application, all runoff shall be channeled to a holding area off the application site, under the control of the property operator, that is designed to retain all irrigation runoff and all precipitation on, and drainage through, the treated field and all other areas draining into that holding area. The holding area shall not have a percolation rate of more than 0.2 inches per hour (5 inches per 24 hours); or

(g) Runoff onto a fallow field. For six months following application, runoff shall be managed so that it runs off an adjacent unenclosed fallow field at least 300 feet long that is not irrigated for six months after application with the exception of the addition of adequate moisture that is required for herbicidal activation following application as described under General Application Instructions, with full consideration of any plant back restrictions.

Leaching Ground Water Protection Areas. Do not use in areas designated by the California Department of Pesticide Regulation as leaching ground water protection areas* unless either (a) the user does not apply any irrigation water for six months following application of this product or (b) the user applies this product to the planting bed or the berm above the level of irrigation water in the furrow or basin and the water level shall remain at or below that level for six months following application of the pesticide with the exception of the addition of adequate moisture that is required for herbicidal activation following application as described under General Application Instructions, or (c) irrigation is managed so that the ratio of the amount of irrigation water applied divided by the net irrigation requirement is 1.25 or less for six months following application of this product.

* Consult with your County Agricultural Commissioner to determine whether the application will be within an area designated by the California Department of Pesticide Regulation as either a Runoff Ground Water Protection Area or a Leaching Ground Water Protection Area. Details regarding the locations of these Areas are also available via the internet at www.cdpr.ca.gov/docs/emon/ grndwtr/gwp_ regs.htm.

CROSSING CA HERBICIDE PRODUCT USE RATES (10.0)

The following directions for the selection of Crossing CA Herbicide application rates are critical to achieve maximum performance and to insure maximum crop safety. The user is required to read and follow the specific Crossing CA Herbicide use directions and restrictions for each crop as defined in subsequent sections of this label. The user is cautioned that some crops respond differently to Crossing CA Herbicide. This response is governed by the Crossing CA Herbicide application rate, various soil factors and inherent crop sensitivity. The Crop Specific Use Directions have been designed to minimize the risk of adverse crop response while maintaining optimum weed control.

Mode of Action (10.1)

Sulfentrazone, the active ingredient in Crossing CA Herbicide, is a potent inhibitor of the enzyme Protoporpyrinogen Oxidase IX (PPO IX) required for the formation of chlorophyll. Inhibition of PPO IX enzyme results in the liberation of singlet oxygen (O) that, in turn, disrupts cellular membranes and causes cellular leakage. The ultimate manifestation of the process is cellular death leading to plant death. The selective herbicidal activity of sulfentrazone is based on its greater affinity for the PPO IX enzyme in weed species versus crop plants.

Mechanism of Action (10.2)

Following the application of Crossing CA Herbicide to soil, germinating seeds and seedlings take up sulfentrazone from the soil solution. The amount of sulfentrazone in soil solution, and available for weed uptake, is determined primarily by soil type, organic matter and soil pH. Sulfentrazone adsorbs to the clay and organic matter (OM) fractions of soils; effectively limiting the amount of active ingredient immediately available to control weeds. Soils typically increase in clay content through the series from coarse to fine as noted in the following Soil Classification Chart, Table 1.

SOIL CLASSIFICATION CHART

Table 1

COARSE	MEDIUM	FINE
Sand	Sandy clay loam	Silty clay loam
Loamy sand	Sandy clay	Silty clay
Sandy loam	Loam	Clay loam
	Silt loam	Clay
	Silt	

Influence of Soil type, organic matter and pH on Crossing CA Herbicide Use Rates and Crop Response

Soil organic matter content can vary widely and independently of soil type and requires an accurate analysis of representative soil samples to determine its content.

Soil pH also exerts a dramatic affect on sulfentrazone availability in the soil solution. As soil pH increases, sulfentrazone availability increases. Accurate soil pH information will require an accurate analysis of representative soil samples.

The total amount of sulfentrazone available in solution, in any given soil, is determined by the interaction of soil type (clay content), % organic matter and pH. The application timing (relative to the emergence of the crop and weeds) and amount of rainfall and/or irrigation received will ultimately determine, in conjunction with the soil parameters and pH, the amount of sulfentrazone in soil solution. It is important to note that Crossing CA Herbicide can await activating moisture. However, diminished weed control may result due to the successive increase in weed growth versus timing of activation.

It is important to note that irrigation with highly alkaline water (high pH) following a Crossing CA Herbicide soil application can also significantly increase the amount of sulfentrazone available in the soil solution. Irrigation with water having a pH greater than 7.5 could result in adverse crop response. This response will ultimately depend on initial Crossing CA Herbicide application rate, timing, amount and pH of irrigation water and sensitivity of the crop and it's growth stage when irrigated. The risk of adverse crop response will lessen with the advance in growth stage among most crops.

The following Crop Specific Use Directions have been designed with specific Crossing CA Herbicide recommendations for each crop based on the soil type, soil organic matter, and soil pH interactions described above. The user is cautioned that crop tolerance and weed control performance are based on strict adherence to these recommendations.

APPLICATION INFORMATION (11.0)

Ground Application

Utilize a boom and nozzle sprayer equipped with the appropriate nozzles, spray tips and screens and adjusted to provide optimum spray distribution and coverage at the appropriate operating pressures. Utilize nozzles that produce minimal amounts of fine spray droplets to avoid spray drift or inadequate foliar and/or soil coverage. Apply a minimum of 10 gallons of finished spray per acre by ground. Be aware that overlaps and slower ground speeds while starting, stopping or turning while spraying may result in excessive application and subsequent crop response.

Do not apply when wind speed favors drift beyond the area intended for treatment.

Aerial Application (11.2)

Use nozzle types and arrangements that will provide optimum coverage while producing a minimal amount of fine droplets. Apply sufficient spray volume to achieve adequate coverage. Apply a minimum of 5 gallons of finished spray per acre.

Do not apply when wind speed favors drift beyond the area intended for treatment.

Chemigation Application (11.3)

Crossing CA Herbicide may be applied through sprinkler irrigation systems including center pivot, lateral move, end tow, solid set, or hand move irrigation systems. Do not apply this product through any other type of irrigation system. Do not connect any irrigation system (including greenhouse systems) used for pesticide application to a public water system. Crop injury, lack of effectiveness or illegal residues on or in the crop can result from non-uniform distribution of treated water. If you have questions about calibration, you should contact State Extension Service specialists, equipment manufacturers, or other experts. A person knowledgeable of the chemigation system and responsible for its operation, or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.

It is important to note that irrigation with highly alkaline water (high pH) following a Crossing CA Herbicide soil application can also significantly increase the amount of sulfentrazone available in soil solution. Irrigation with water having a pH greater than 7.5 could result in adverse crop response. This response will ultimately depend on initial Crossing CA Herbicide application rate, application timing, amount and pH of the irrigation water, and the sensitivity of the crop and the growth stage when irrigated. The risk of adverse crop response will lessen with advancing growth stages of most crops.

The system must contain a functional check valve, v[illegible]m relief valve, and low-pressure drain appropriately[illegible]ted on the irrigation pipeline to prevent water source contamination from backflow. The p[illegible]ide injection pipeline must also contain a functiona[illegible]utomatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump. The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops. The irrigation line or water pump must include a functional pressure switch, which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.

Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

Crossing CA Herbicide should be metered into the irrigation system continuously for the duration of the water application. Crossing CA Herbicide should be diluted in sufficient volume to insure accurate application over the area to be treated. Use the appropriate amount of water to carry the product to the soil surface. Continuous agitation is required to maintain product suspension in the solution tank. A jar test should be conducted to ensure that phase separation would not occur during dilution and application. Failure to achieve a uniform dilution throughout the time of application may result in undesirable residues or less than desirable weed control. Flush the lines at the completion of the application and then turn the water off promptly.

When using water from public water systems; DO NOT APPLY Crossing CA Herbicide THROUGH ANY IRRIGATION SYSTEM **PHYSICALLY CONNECTED** TO A PUBLIC WATER SYSTEM. Public water system means a system for the provision to the public of piped water for human consumption if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days of the year. Crossing CA Herbicide may be applied through irrigation systems, which may be **supplied** by a public water system **only if** water from the water system is discharged into a reservoir tank prior to pesticide introduction. There shall be a complete physical break (air gap) between the outlet end of the fill pipe and to top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe. Before beginning chemigation, always make sure that the air gap exists and that there is no blockage of the overflow of the reservoir tank.

Application with Dry Fertilizers (11.40)

Crossing CA Herbicide may be applied impregnated on dry fertilizers. When applied as directed with adequate soil coverage, Crossing CA Herbicide dry bulk fertilizer mixtures will provide satisfactory weed control.

Follow all Crossing CA Herbicide label directions regarding product use rates per acre, registered crops, incorporation, special instructions and precautions.

Apply Crossing CA Herbicide/dry fertilizer mixtures with ground equipment only.

All individual state regulations relating to dry bulk fertilizer blending, registration, labeling, and application are the responsibility of the individual and/or company preparing, storing, transporting, selling or applying the Crossing CA Herbicide /dry fertilizer mixture.

Impregnation Directions (11.41)

To impregnate Crossing CA Herbicide on dry bulk fertilizer, use a closed rotary-drum mixer or other commonly used dry bulk fertilizer blender equipped with suitable spray equipment.

Prepare a slurry of Crossing CA Herbicide in a clean container using clear water. Slowly add the Crossing CA Herbicide /water slurry to the impregnation spray tank and finish filling as needed with clear water. Spray nozzles must be placed to provide uniform coverage of Crossing CA Herbicide onto the fertilizer during mixing.

Refer to the SPRAYER EQUIPMENT CLEAN-OUT section for directions for cleaning impregnation equipment, transport equipment, loading equipment and application equipment.

Apply the Crossing CA Herbicide dry bulk fertilizer with an accurately calibrated dry fertilizer spreader. The Crossing CA Herbicide dry bulk fertilizer mixture must be spread uniformly on the soil surface. Uneven spreading leaving untreated areas can cause poor weed control or overlapping areas with potential increased Crossing CA Herbicide use rates could result in possible crop response.

A minimum of 200 pounds of dry bulk fertilizer impregnated with the recommended amount of Crossing CA Herbicide must be applied per acre to achieve adequate soil coverage for satisfactory weed control.

DO NOT impregnate Crossing CA Herbicide onto coated ammonium nitrate or limestone because these materials will not absorb the herbicide.

Refer to the appropriate crop section of the Crossing CA Herbicide label to determine the rate of Crossing CA Herbicide to be applied per acre. Use the following table to determine the amount of Crossing CA Herbicide to be impregnated on a ton (2000 pounds) of dry bulk fertilizer based on the rate of fertilizer that will be applied per acre.

For those rates not listed in the following table, calculate the amount of Crossing CA Herbicide to be impregnated on a ton of dry bulk fertilizer using the following formula:

$$\frac{2000}{\text{Pounds dry fertilizer per acre}} \times \text{Crossing CA use rate in fluid ounces per acre} = \text{ounces of Crossing CA to be applied per ton of fertilizer}$$

RATE CHART FOR IMPREGNATION OF DRY BULK FERTILIZERS WITH CROSSING CA Herbicide
Table 2

	Ounces Crossing CA Herbicide per ton of fertilizer		
	Crossing CA Herbicide Use Rate Per Acre		
Dry Fertilizer Rate (lb/acre)	8.0 Fluid Ounces per Acre	10.1 Fluid Ounces per Acre	12.0 Fluid Ounces per Acre
200	80	101	120
250	64	80.8	96
300	53.3	67.3	80
350	45.7	57.7	68.6
400	40	50.5	60
450	35.6	44.9	53.3

Application with Liquid Fertilizer (11.42)

Crossing CA Herbicide may be applied using liquid fertilizer solutions as the carrier. The fertilizer solutions may either be concentrate formulations as blended or diluted with water. When applied as directed with adequate soil coverage, Crossing CA Herbicide applied with liquid fertilizer mixtures will provide satisfactory weed control. However, adequate soil coverage is essential to achieve acceptable levels of weed control.

Herbicide mixing, solution stability and/or compatibility problems can occur when liquid fertilizers are used as a carrier. Compatibility tests must be conducted prior to mixing to insure tank mixture compatibility and stability. The use of compatibility agents may be beneficial to achieve and maintain a homogenous solution.

Mixing Instructions for Liquid Fertilizer Applicati(11.43)
Fill the clean spray tank to one half of the total volum ith the fertilizer solution. Start the spray tank agitatic stem. Prepare a slurry of Crossing CA Herbicide in a clean container with clean water using equal volumes of Crossing CA Herbicide and clean water. Slowly add the Crossing CA Herbicide /water slurry to the spray tank. Carefully rinse the slurry container, adding the rinsate to the spray tank. Better mixing of the Crossing CA Herbicide /water slurry may be achieved if the slurry is added using induction systems on the sprayer fill plumbing system.

Complete filling the spray tank to the desired level. Sufficient and continuous spray tank agitation is required at all times to maintain a homogenous spray solution. The spray system must be designed such that there is sufficient flow capacity to uniformly apply the spray mixture and maintain adequate tank agitation. Some systems may require separate pumps to simultaneously supply the spray system and the spray tank agitation system. Insure the Crossing CA Herbicide slurry is thoroughly mixed before application.

For tank mixtures with other herbicide(s), a compatibility test must be conducted to insure product compatibility before mixing. Read and follow all the directions, precautions and restrictions of the tank mixture products prior to mixing.

Apply the Crossing CA Herbicide spray mixture immediately after mixing. Do not store the sprayer overnight or for any extended period of time with the Crossing CA Herbicide spray mixture remaining in the tank.

Do not premix Crossing CA Herbicide spray solutions in nurse tanks.

Follow all Crossing CA Herbicide label directions regarding product use rates per acre, registered crops, application instructions, incorporation directions, special instructions and all precautions.

All individual state regulations relating to liquid fertilizer blending, storage, transportation, registration, labeling, and application are the responsibility of the individual and/or company preparing, selling or applying the Crossing CA Herbicide and fertilizer mixture.

SPRAY DRIFT REDUCTION ADVISORY (12.0)

To avoid drift, do not apply when wind speeds exceed 10 mph. Do not exceed spray pressures of 40 psi unless specified by the manufacturer of drift reducing spray tips and nozzles.

Spray Drift Management (12.1)
AVOIDING SPRAY DRIFT AT THE APPLICATION SITE IS THE RESPONSIBILITY OF THE APPLICATOR AND THE GROWER.

The interaction of many equipment and weather related factors determine the potential for spray drift. The applicator and the grower are responsible for considering all these factors when making decisions.

The following drift management requirements must be followed to avoid off-target movement from aerial applications. These requirements do not apply to forestry applications, public health uses or to applications of dry materials.

1. The distance of the outermost nozzles on the boom must not exceed ¾ the length of the wingspan or rotor.
2. Nozzles must always point backward parallel with the air stream and never be pointed downwards more than 45 degrees.
3. Observe the regulations of the State where applications are made.
4. Applicators must observe and abide by the requirements of the Aerial Drift Reduction Advisory.

Information on Droplet Size
The most effective way to reduce drift potential is to apply large droplets. The best drift management strategy is to apply the largest droplets that provide sufficient coverage for pesticide performance. Applying larger droplets reduces drift potential but will not prevent drift if applications are made improperly or under unfavorable environmental conditions. (See information on Wind, Temperature and Humidity, and Temperature Inversions in subsequent sections).

Controlling Spray Droplet Size (12.3)
Volume – Use high flow rate nozzles to apply the greatest practical spray volume. Nozzles with higher rated flow generally produce larger droplets.

Pressure - When higher flow rates are needed, use higher flow rate nozzles rather than increasing spray pressure.

Do not exceed the nozzle manufacturer's recommended pressures. Lower pressure produces larger droplets in many types of nozzles.

Number of Nozzles – Use the minimum number of nozzles that provide uniform coverage.

Nozzle Orientation – For aerial application, the recommended practice is to orient nozzles so that the spray is released parallel to the airstream. This orientation usually produces larger droplets as compared to other nozzle orientations. Significant nozzle deflection from horizontal will reduce droplet size and increase drift potential.

Nozzle Type - Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low drift nozzles for both ground and aerial applications. Solid stream nozzles oriented straight back usually produce the largest droplets and the lowest drift potential in aerial applications

Boom Length – For some aerial use patterns, reducing the effective boom length to less than ¾ of the wingspan or rotor length may further reduce drift without reducing swath width.

Application Height - Aerial applications should not be made at a height greater than 10 feet above the top of the target plant canopy unless a greater height is required for aircraft safety. Making applications at the lowest height that is safe reduces exposure of droplets to evaporation and wind.

Swath Adjustment – When aerial applications are made with a crosswind, the swath will be displaced downwind. Therefore, on the upwind and downwind edges of the field, the applicator must compensate for this displacement by the path of the aircraft upwind. Swath adjustment or offset distance should increase when conditions favor increased drift potential (higher winds, smaller droplets, etc).

Wind – Drift potential is lowest between wind speeds of 3-10 mph. However, many factors, including droplet size and equipment type determine drift potential at any given wind speed. Application should be avoided below 3 mph due to variable wind direction and high inversion potential. NOTE: Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they may potentially affect spray drift.

Temperature and Humidity – When making applications in low relative humidity, set up equipment to produce larger droplets to compensate for evaporation. Droplet evaporation is most severe when conditions are both hot and dry.

Temperature Inversions – Applications should not occur during a temperature inversion because drift potential is high. Temperature inversions restrict vertical air mixing, which causes small-suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions due to the low speed and variable winds common during inversions. Temperature inversions are characterized by increasing temperatures with altitude and are common during conditions of limited cloud cover and little to no wind. They often begin to form as the sun sets and may often continue into the morning. The presence of a temperature inversion may be indicated by ground fog. However if fog is not present, the movement of smoke from a ground source or an aircraft smoke generator can also identify inversions. Smoke that remains in layers and moves laterally in a concentrated cloud (under low speed wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.

Sensitive Areas – The pesticide should only be applied when the wind is blowing away from sensitive areas (e.g. residential areas, bodies of water, known habitat for threatened or endangered species, non-target crops).

Off-Target Movement of Crossing CA Herbicide
Drift of dilute spray mixtures containing Crossing CA Herbicide must be prevented. Observation of the preceding environmental conditions, correct application equipment design, calibration and application practices will significantly diminish the risk of off-target spray drift. Crossing CA Herbicide can cause significant symptomology by drift on to sensitive crops and other plants. This symptomology may manifest initially as discreet, localized spots where contacted by Crossing CA Herbicide drift mixtures. Depending on concentration of the spray solution and droplets size (effectively determining the dosage of sulfentrazone) and also depending on the inherent sensitivity of the plants involved, these spots or lesions may or may not coalesce. These effects will usually not have lasting effects on plant growth, but will likely reduce the value of affected fruit or foliage where grade or quality is associated with appearance. In severe drift instances with particularly sensitive crops, defoliation of affected foliage could result. Failure to follow these guidelines

and environmental prohibitions that then result in off- et movement or drift of Crossing CA Herbicide on t tended crops or plants, irrespective of severity, constitutes misapplication of this product .C accepts no responsibility or liability for potenti op effects that may result from such misapplication of Crossing CA Herbicide.

MAXIMUM ALLOWABLE CROSSING CA HERBICIDE USE PER ACRE PER 12 MONTH PERIOD* (13.0)

Refer to the crop section of this label for specific product use directions.
Table 3

Crop	Ounces Crossing CA Herbicide Per Acre	Pound Active Sulfentrazone Per Acre
Row Crops		
Corn	12.0	0.375
Fallow	8.0	0.25
Peanuts	9.6	0.30
Potatoes	8.0	0.25
Soybeans	12.0	0.375
Sugarcane	12.0	0.375
Sunflowers	8.0	0.25
Tobacco	8.0	0.375
Vegetable Crops		
Asparagus	12.0	0.375
Cabbage	12.0	0.375
Dry Beans & Peas	8.0	0.25
Horseradish	8.0	0.25
Oil Crops		
Mint	12.0	0.375

*The total allowed usage per twelve-month period includes all applications made to the field per twelve-month interval. This includes fallow treatments, burndown treatments, planting time and all in-season treatments. The twelve-month period is considered to begin upon the initial Crossing CA Herbicide application.

CROP ROTATIONAL RESTRICTIONS (14.0)

The following Table 4 shows the minimum interval in months from the time of the last Crossing CA Herbicide application until Crossing CA Herbicide treated soil can be replanted to the crops listed. When Crossing CA Herbicide is tank mixed with another herbicide, refer to the partner label for recropping instructions, following the directions that are most restrictive.

For all other crops not listed below, the rotational interval is a minimum of 12 months. Some crops have rotational intervals greater than 12 months after a Crossing CA Herbicide application due to potential crop injury. A representative bioassay of the field shall be completed with the rotational crop to accurately determine the planned crop's sensitivity to sulfentrazone.

CROP ROTATIONAL RESTRICTIONS**
Table 4

Crop	Interval (Months)
Asparagus	Anytime
Barley	4
Cabbage	Anytime
Canola	24
Cereal Grains (Buckwheat, Oats, Pearl Millet, Proso Millet, Teosinte, Wild Rice)	12
Corn, Field	10
Corn, Pop	18
Corn, Sweet	18
Cotton	18
Dry Shell Peas and Beans	Anytime
Horseradish	Anytime
Limas	Anytime
Mint	Anytime
Peanuts	Anytime
Potatoes	Anytime
Rice	10
Rye	4
Sorghum	10 *
Soybeans	Anytime
Sugar Beets	36
Sugarcane	Anytime
Sunflowers	Anytime
Sweet Potatoes	12
Triticale	4
Tobacco	Anytime
Turf	Anytime
Wheat	4

*Sorghum – 18-month rotation for rates above 8.0 oz/acre
**For all other crops not listed, the rotation interval is a minimum of 12 months.

BAND TREATMENT APPLICATIO (15.0)

For band treatments, apply the broadcast equivalent rate and volume per acre. To determine these:

Band Width Inches / Row Width Inches	X	Broadcast Rate Per Acre	=	Band Rate
Band Width Inches / Row Width Inches	X	Broadcast Volume Per Acre	=	Band Volume

MIXING AND LOADING INSTRUCTIONS (16.0)

Crossing CA Herbicide may be applied alone, or in tank mixtures with other herbicides for the control of additional weed species. Mixtures with some other pesticides have not been tested. Conduct appropriate compatibility tests prior to tank mixing with other pesticides. Follow all precautions and restrictions on the tank mix partner label.

It is important that spray equipment is clean and free of existing pesticide residues before preparing Crossing CA Herbicide spray mixtures. Follow the spray tank clean out procedures specified on the label of the product or products previously applied.

For best results fill spray tank with one half of the volume of clean water needed for the field to be treated. Start agitation system. Prepare a slurry of Crossing CA Herbicide in a clean container using clean water. Slowly add the Crossing CA Herbicide /water slurry to the spray tank. Carefully rinse the slurry container, adding the rinsate to the spray tank. Complete filling the spray tank to the desired level. Continuous spray tank agitation is required at all times to maintain a uniform spray solution.

Make sure Crossing CA Herbicide is thoroughly mixed before application or before adding another product to the spray tank.

Use the Crossing CA Herbicide spray mixture immediately after mixing. Do not store the sprayer overnight or for any extended period of time with the Crossing CA Herbicide spray mixture remaining in the tank.

Do not premix Crossing CA Herbicide spray solutions in nurse tanks.

If Crossing CA Herbicide is tank mixed with other herbicides, all additional directions, restrictions and precautions for the tank mixture herbicides must be followed.

SPRAYER EQUIPMENT CLEAN-OUT (17.0)

As soon as possible after spraying Crossing CA Herbicide and before using sprayer equipment for any other applications, the sprayer must be thoroughly cleaned to avoid potential crop affects using the following procedure. Residues left in mixing equipment, spray tanks, hoses, spray booms and nozzles can cause crop effects if they are not properly cleaned. In addition, users must take appropriate steps to ensure proper equipment clean-out for any other products mixed with Crossing CA Herbicide as required on the other product labels. More complete cleaning can be achieved if the spray system is cleaned immediately following the application.

1. Drain sprayer tank, hoses, spray boom and spray nozzles. Use a high-pressure detergent wash to remove physical sediment and residues from the inside of the sprayer tank and thoroughly rinse. Then, thoroughly flush sprayer hoses, spray boom and spray nozzles with a clean water rinse. Remove and clean spray tips and all filters and screens (tank, spray hose and spray tips) separately in the ammonia solution of Step 2.

2. Next, prepare a sprayer cleaning solution by adding three gallons of ammonia (containing at least 3% active) per 100 gallons of clean water. Prepare sufficient cleaning solution to allow the operation of the spray system for a minimum of 15 minutes to thoroughly flush hoses, spray boom and spray nozzles.

3. Convenient and thorough cleaning of the sprayer can be achieved if the ammonia solution or fresh water is left in the spray tank, hoses, spray booms and spray nozzles overnight or during storage.

4. Before using the sprayer, completely drain the sprayer system. Rinse the tank with clean water and flush through the hoses, spray boom, and spray nozzles with clean water. Remove and clean spray tips and all filters and screens (tank, spray hose and spray tip) separately in an ammonia solution.

5. Properly dispose of all cleaning solution and rinsate in accordance with Federal, State, and local regulations and guidelines.

Do not apply sprayer cleaning solutions or rinsate to sensitive crops.

Do not store the sprayer overnight or for any extended period of time with Crossing CA Herbicide spray solution remaining in the tank, spray lines, spray boom plumbing, spray nozzles or strainers.

If the sprayer has been stored or idle, purge the spray boom and nozzles with clean water before beginning any application.

Should small quantities of Crossing CA Herbicide remain in inadequately cleaned mixing, loading and/or spray equipment, they may be released during subsequent applications potentially causing effects to certain crops and other vegetation. FMC accepts no liability for any effects due to inadequately cleaned equipment.

Do not drain of flush equipment on or near desirable trees or plants.

Do not contaminate any body of water including irrigation water that may be used on other crops.

WEEDS LIST (18.0)

When Crossing CA Herbicide is applied in accordance with the General Application information and the specific crop use directions, Crossing CA Herbicide applied alone or in recommended tank mixtures will provide control of the following weeds. Refer to the specific crop section.

Table 5

Scientific Name	Scientific Name
Amaranth, livid	*Amaranthus lividus*
Amaranth, Palmer	*Amaranthus palmeri*
Amaranth, Powell	*Amaranthus Powell II*
Amaranth, spiny	*Amaranthus spinosus*
Amaranth, spleen	*Amaranthus dubius*
Anoda, spurred	*Anoda cristata*
Bedstraw, catchweed	*Galium aparine*
Carpetweed	*Mollugo verticillata*
Chickweed, common	*Stellaria media*
Copperleaf, hophornbeam	*Acalypha ostryeafolia*
Copperleaf, Virginia	*Acalypha virginica*
Crabgrass, large	*Digitaria sanguinalis*

Crabgrass, smooth	*Digitaria ischa[illegible]m*
Crabgrass, Southern	*Digitaria ciliaris*
Croton, tropic	*Croton glandulosus*
Crownbeard, golden	*Verbesina encelioides*
Cupgrass, wooly	*Erichloa villosa*
Cyperus, hedgehog	*Cyperus compressus*
Daisy, American	*Eclipta alba*
Devilsclaw	*Proboscidea louisiana*
Dock, curly	*Rumex crispus*
Eclipta	*Eclipta prostrata*
Filaree, redstem	*Erodium cicutarium*
Flixweed	*Descurainia sophia*
Galinsoga, hairy	*Galinsoga ciliata*
Goosegrass	*Eleusine indica*
Groundcherry, clammy (seedling)	*Physalis heterophylla*
Groundcherry, cutleaf	*Physalis angulata*
Jimsonweed	*Datura stramonium*
Kochia (ALS and Triazine Resistant)	*Kochia scoparia*
Ladysthumb	*Polygonum persicaria*
Lambsquarters, common	*Chenopodium album*
Lettuce, miners	*Montia perfoliata*
Mallow, common	*Malva neglecta wall r.*
Mayweed, Chamomile	*Anthemis cotula l.*
Milkweed, honeyvine	*Ampelamus albidus*
Morningglory, entireleaf	*Ipomoea hederacea integriuscula*
Morningglory, ivyleaf	*Ipomoea hederacea hederacea*
Morningglory, palmleaf	*Ipomoea wrightii*
Morningglory, purple	*Ipomoea turbinata*
Morningglory, red	*Ipomoea, coccinea L.*
Morningglory, scarlet	*Ipomoea coccinea*
Morningglory, smallflower	*Jacquemontia tamnifolia*
Morningglory, tall	*Ipomoea, purpurea*
Mustard, tumble	*Sisybrium altissimum*
Nightshade, black	*Solanum nigrum*
Nightshade, Eastern black	*Solanum ptycanthum*
Nutsedge, purple	*Cyperus rotundus*
Nutsedge, yellow	*Cyperus esculentus*
Orchardgrass	*Dactylis glomerata*
Panicum, fall	*Panicum dichotomiflorum*
Pigweed, redroot	*Amaranthus retroflexus*
Pigweed, smooth	*Amaranthus hybridus*
Plantain, blackseed	*Plantago rugelii decne*
Plantain, narrow-leaved	*Plantago lanceolata*
Poorjoe	*Diodia teres*
Porophyllum	*Porophyllum rederale*
Poinsettia, wild	*Euphorbia heterophylla*
Purslane, common	*Portulaca oleracea*
Redmaids	*Calandrinia ciliata*
Redweed	*Melochia corchorifolia*
Sedge, annual	*Carex spp.*
Senna, coffee	*Cassia occidentalis*
Sheperdspurse	*Capsella bursa-pastoris*
Sida, prickly	*Sida spinosa*
Sida, Southern	*Sida acuta*
Signalgrass, broadleaf	*Brachiaria platyphylla*
Smartweed, PA (seedling)	*Polygonum pensylvanicum*
Smellmellon	*Cucumis melo*
Starbur, bristly	*Acanthospermum hispidum*
Stinkgrass	*Eragrostis cilianensis*
Toadflax, yellow	*Linaria vulgaris*
Tassleflower, red	*Emilio sonchifolia*
Thistle, Russian	*Salsola kali*
Waterhemp, common	*Amaranthus rudis*
Waterhemp, tall	*Amaranthus tuberculatos*
Waterprimrose, winged	*Ludwigia decurrens*
Witchgrass	*Panicum capillare*

REPLANTING INSTRUCTIONS (1

If initial planting of labeled crops fails to produce a stand, only labeled crops for Crossing CA Herbicide or the tank mix partner; whichever is most restrictive, may be planted. Do not retreat field with Crossing CA Herbicide or other herbicide containing sulfentrazone. Do not plant treated fields with any crop at intervals that are inconsistent with the Rotational Crop Guidelines on this label. When replanting use minimum soil tillage to preserve the herbicide barrier and achieve maximum weed control.

ROW CROPS

CORN (Field Corn, Seed Corn, Popcorn) (For Use Only with GMO Varieties Tolerant to PPO Herbicides) (20.0)

Table 6

Crossing CA Use Rate Table (Corn) Fall, Spring Early Preplant, Preemergence, and Preplant Incorporated Applications			
Broadcast Rate	**Fluid Ounces Crossing CA per acre**		
	Soil Texture		
% Organic Matter	**Coarse**	**Medium**	**Fine**
<1.5	3.0 – 4.5	3.0 – 4.5	3.75 – 5.25
1.5-3.0	3.0 – 4.5	3.75 – 6.0	4.5 – 6.75
>3	3.75 – 6.0	4.5 – 6.75	6.0 – 8.0
Refer to the previous information on soil types under the COARSE, MEDIUM, and FINE categories Use higher rates for soils of pH less than 7.0 and lower rates for pH greater than 7.0 within the rate range.			

Preplant (Fall Applications) (20.1)
Crossing CA Herbicide may be applied in the fall as a preplant treatment prior to corn planting the following spring.

Crossing CA Herbicide can be used alone or in a tank mixture with other herbicides to control susceptible broadleaves, sedges and grasses in corn. Apply Crossing CA in conventional tillage or conservation tillage (reduced tillage or no-tillage) cropping systems using rates recommended in the Table 6. Crossing CA Herbicide should be applied to the stubble or soil surface and allow moisture from rainfall or snow to move the product into the soil. Do not mechanically incorporate in the fall or spring as this operation can destroy the herbicide barrier allowing weed escapes to occur. Do not apply to frozen soils or existing snow cover to prevent Crossing CA Herbicide runoff from rain or snowmelt that may occur following application. Crossing CA Herbicide may be tankmixed with other burndown herbicides to control emerged weeds in the fall or residual soil herbicides that are labeled for fall use on corn. Select the correct Crossing CA Herbicide use rate for corn from the Table 6 for your soil type and organic matter. Due to the extended period of time between the fall application and corn planting, the use rate of Crossing CA Herbicide should be the mid to high rate within the rate range for the appropriate soil type and organic matter.

Early Preplant and Preemergence (Spring Applications) (20.2)
Crossing CA Herbicide may be applied preplant on the soil surface in the spring to control weeds in conventional and conservation tillage systems. Crossing CA Herbicide can be applied from 45 days prior to planting until 3 days after planting as a preemergence broadcast or banded soil application if corn seedlings have not broken the soil surface and if the seed furrow is completely closed. For preemergence applications 14 to 45 days prior to planting, use the mid to high rate in the appropriate rate range for the soil and organic matter type listed in Table 6. Crossing CA Herbicide can be tank mixed with other herbicides labeled for use in corn. To control insect pests such as cutworm or armyworm that may be present, Crossing CA Herbicide may be tankmixed with insecticides including Mustang Max or Capture 2EC. If dry conditions persist following preemergence application of Crossing CA Herbicide, a shallow incorporation may be needed to activate the herbicide. If weeds are emerged at the time of Crossing CA Herbicide application, use a burndown herbicide in conjunction with Crossing CA as needed. When planting into soil treated preplant with Crossing CA Herbicide, minimize soil disturbance to maintain the herbicide barrier on the soil surface to achieve maximum weed control. Observe all precautions, instructions, and rotational cropping guidelines of each product's label when tank mixing, including all references to potential carryover and crop injury warnings or restrictions.

Preplant Incorporated (20.3)
Crossing CA Herbicide may be applied as a Preplant Incorporated treatment in the spring prior to planting in reduced and conventional tillage corn. Crossing CA Herbicide should be shallowly incorporated or mixed thoroughly into the soil to a maximum depth of 2 inches using a correctly adjusted implement such as a field cultivator, field finisher or disk harrow. Incorporating Crossing CA Herbicide deeper than 2 inches may result in inconsistent weed control. Use the appropriate rate from Table 6 for the soil texture, organic matter, and pH level of the soil. Crossing CA Herbicide can be tankmixed with other soil-applied herbicides and insecticides labeled for preplant incorporation in corn. Observe all precautions, instructions, and rotational cropping guidelines of each product's label when tank mixing, including all references to potential carryover and crop injury warnings or restrictions.

Crossing CA Herbicide may be applied more than once to the same crop in split or sequential applications to provide season-long control of difficult-to-control existing or late emerging weeds.

Precautions
These Crop Specific Use directions are based upon the interactive effects of Crossing CA Herbicide (sulfentrazone) and the primary soil and environmental factors, which affect its activity on various weed species and tolerance among crops. The user is required to observe the instructions and guidance previously presented under General Application Instructions, General Crossing CA Herbicide Product Use Rates, Rotational Crop Guidelines, Replanting Instructions, Weed Controlled and any other section of this label pertinent to the anticipated crop use. It is important to note that not all varieties or cultivars of a given crop species have been evaluated under treatment with Crossing CA Herbicide. Consult university or extension weed management specialists for additional information on specific local varieties or cultivars and any other pertinent information on Crossing CA Herbicide under specific local conditions..

Restrictions
Do not apply more than 12.0 fluid ounces (0.375 pound active) per twelve-month period. The twelve-month period is considered to begin upon the initial Crossing CA Herbicide application.

Do not use on soils classified as sand, which have less than 1% organic matter.

Do not apply to frozen soils or existing snow cover to prevent Crossing CA Herbicide runoff from rain or snowmelt that may occur following application.

FALLOW OR POST HARVEST BURNDOWN (21.0)

Crossing CA Herbicide may be applied in the fall following crop harvest or in existing fallow fields of asparagus, cabbage, corn, dry shell peas and beans, horseradish, limas, mint, peanuts, potatoes, soybeans, sugarcane, sunflowers and tobacco.

Table 7

Crossing CA Herbicide Use Rate Table (Fallow or Post Harvest Burndown) Fall and Spring Fallow Applications			
Broadcast Rate	Fluid Ounces Crossing CA Herbicide per acre		
	Soil Texture		
% Organic Matter	Coarse	Medium	Fine
<1.5	3.0 – 3.75	3.0 – 4.5	3.75 – 5.25
1.5-3.0	3.75 – 5.25	3.75 – 6.0	4.5 – 6.75
>3	4.5 – 6.0	4.5 – 8.0	5.25 – 8.0
Refer to the previous information on soil types under the COARSE, MEDIUM, and FINE categories Use higher rates for soils of pH less than 7.0 and lower rates for pH greater than 7.0 within the rate range.			

Fall Application (21.1)
Crossing CA Herbicide may be applied in the fall following crop harvest or in existing fallow fields to control or suppress weeds the following season. The Crossing CA Herbicide Rotational Crop Guidelines in Table 4 must be followed if crops are planted the next season. Crossing CA Herbicide should be applied to the harvested crop stubble or soil surface without incorporation. Moisture in the form of rain or snow will move and activate the product. Do not mechanically incorporate in the fall or spring after application because this activity may destroy the herbicide barrier and weed escapes can occur. Do not apply to frozen soils to prevent Crossing CA Herbicide runoff from rain or snow that may occur following application. Crossing CA Herbicide may be tankmixed with herbicides to control emerged weeds. Sequential applications may be needed depending on weed size. In situations where weed size may interfere with Crossing CA Herbicide reaching the soil surface, a separate burndown application prior to the application of Crossing CA Herbicide will be required. Use full, recommended rates of burndown herbicides in combination with Crossing CA Herbicide, or sequential applications as needed. Higher aerial spray volumes are required when there is a dense weed population or canopy.

Crossing CA Herbicide can be tankmixed with other herbicides. Observe all precautions, instructions, and rotational cropping guidelines of each product's label when tank mixing, including all references to potential carryover and crop injury warnings or restrictions.

Spring Preemerge Application (21.2)
Crossing CA Herbicide may be applied as a fallow treatment early in the spring provided the application is made prior to weed emergence, and adequate moisture is available to activate the Crossing CA Herbicide. Follow the same use rate recommendations and application guidelines listed under the Fall Application section above.

Weeds Controlled
When applied according to directions, Crossing CA Herbicide will provide control of:

Filaree, redstem	Pigweed, redroot
Kochia (ALS and Triazine Resistant)	Pigweed, smooth
Lambsquarters, common	Thistle, Russian
Morningglory, ivyleaf	Waterhemp, common
Morningglory, tall	Waterhemp, tall
Nightshade, Eastern Black	

For information on other weeds not listed above, refer to Weeds Controlled section (Table 5) of this label.

Precautions
These Crop Specific Use directions are based upon the interactive effects of Crossing CA Herbicide (sulfentrazone) and the primary soil and environmental factors, which affect its activity on various weed species and tolerance among crops. The user is required to observe the instructions and guidance previously presented under General Application Instructions, General Crossing CA Herbicide Product Use Rates, Rotational Crop Guidelines, Replanting Instructions, Weed Controlled and any other section of this label pertinent to the anticipated crop use. It is important to note that not all varieties or cultivars of a given crop species have been evaluated under treatment with Crossing CA Herbicide. Consult university or extension weed management specialists for additional information on specific local varieties or cultivars and any other pertinent information on Crossing CA Herbicide under specific local conditions.

Use Restrictions
Do not apply more than 8.0 fluid ounces (0.25 lb active) per twelve-month period. The twelve-month period is considered to begin upon the initial Crossing CA Herbicide application.

Do not use on soils classified as sand, which have less than 1% organic matter.

Do not apply to frozen soils or existing snow cover to prevent Crossing CA Herbicide runoff from rain or snowmelt that may occur following application.

PEANUTS (22.0)

Apply Crossing CA Herbicide alone or in combination with other registered herbicides for the control of key grass and broadleaf weeds in peanut production. Refer to the information below for specific use directions.

Application Instructions
Crossing CA Herbicide may be preplant incorporated (to a depth no greater than 2 inches) up to 14 days prior to planting. Alternatively, Crossing CA Herbicide may be applied to the soil surface at planting, or within 12 hours after planting. Incorporation of Crossing CA Herbicide deeper than 2 inches can result in adverse crop response and/or inconsistent weed control. Do not use Crossing CA Herbicide for "at-crack" type applications or apply to exposed peanut tissue. Such use can result in significant adverse crop response. For optimum performance, a combination of Crossing CA Herbicide plus a grass herbicide labeled for peanuts is recommended. Under conditions of exceptionally high weed populations or when weeds not controlled by Crossing CA Herbicide are anticipated, the use of suitable post-emergent peanut herbicides is recommended. Broadcast apply the correct Crossing CA Herbicide use rate from Table 8 below, in a minimum of 10 gallons of water per acre of finished spray. Banded Crossing CA Herbicide application rates must be adjusted in proportion to the broadcast rate.

Crossing CA Herbicide Use Rates and Weeds Controlled in Coarse Soils[1]

Table 8
When applied, as directed, at 4.8 fluid ounces (0.15 pound active ingredient) per acre, Crossing CA Herbicide will provide:
Control of the listed weeds.

Amaranth, spleen	Jimsonweed
Copperleaf, hophornbeam	Lambsquarters, common
Croton, tropic	Morningglory, entireleaf

Crownbeard, golden	Morningglory, red
Devilsclaw	

When applied, as directed, at 6.4 fluid ounces (0.2 pound active ingredient) per acre, Crossing CA Herbicide will provide: Control of the listed weeds.

All the weeds controlled at 4.8 fl. ozs. plus:	
Amaranthus, Palmer	Morningglory, smallflower
Crabgrass, large	Poinsettia, wild [2]
Crabgrass, Southern	Redweed
Eclipta	Senna, coffee
Goosegrass	Signalgrass, broadleaf
Morningglory, pitted	Smartweed, PA (seedling)

When applied, as directed, at 8.0 fluid ounces (0.25 pound active ingredient) per acre, Crossing CA Herbicide will provide: Control of the listed weeds.

All the weeds controlled at 6.4 fl. ozs. plus:	
Anoda, spurred	Purslane, common
Cocklebur, common	Sida, prickly
Nutsedge, yellow	Starbur, prickly
Nutsedge, purple [3]	

[1]Use rates are Crossing CA Herbicide fluid ounces per acre. Specified weeds are controlled in coarse (sand and loamy sand) soils. Medium and fine soils (sandy loam, clay loam, clay) or soils with organic matter greater than 1.0% should use the next higher rate in Table 8 above. The next higher rate for 8.0 fluid ounces (0.25 lb ai) should not exceed 9.6 fluid ounces (0.3 lb ai) per acre.

[2] Controls initial and several continuing flushes (germinations) of wild poinsettia.

[3] Purple nutsedge activity is based on preplant incorporated applications of Crossing CA Herbicide. Pre-emergence surface applications may provide control (>85%) under certain circumstances. Otherwise, purple nutsedge will be partially controlled (71 to 84%).

In soils with pH greater than 7, use the next lower Crossing CA Herbicide application rate. Irrigation with alkaline (pH 8 to 9) water can result in adverse crop response. The extent of crop response is dependent on Crossing CA Herbicide application rate, soil type (including %OM and pH), timing (after Crossing CA application relative to crop emergence), amount and pH of irrigation water. Do not irrigate with water greater than pH 9.

After peanuts are established (4" to 6" across in size), the alkalinity of irrigation water has minimal impact on crop growth.

For information on other weeds not listed above, refer to Weed Controlled section (Table 5) in this label.

Precautions

These Crop Specific Use directions are based upon the interactive effects of Crossing CA Herbicide (sulfentrazone) and the primary soil and environmental factors, which affect its activity on various weed species and tolerance among crops. The user is required to observe the instructions and guidance previously presented under General Application Instructions, General Crossing CA Herbicide Product Use Rates, Rotational Crop Guidelines, Replanting Instructions, Weed Controlled and any other section of this label pertinent to the anticipated crop use. It is important to note that not all varieties or cultivars of a given crop species have been evaluated under treatment with Crossing CA Herbicide. Consult university or extension weed management specialists for additional information on specific local varieties or cultivars and any other pertinent information on Crossing CA Herbicide under specific local conditions.

Restrictions

Do not apply more than 9.6 fluid ounces (0.3 lb ai) of Crossing CA Herbicide per acre per twelve-month period. The twelve-month period is considered to begin upon the initial Crossing CA application.

Do not feed treated peanut forage or peanut hay to livestock.

Do not use on soils classified as sand, which have less than 1% organic matter.

Do not irrigate with water having a pH higher than 9.

Do not apply at cracking time.

POTATOES (23.0)

Table 9

Crossing CA Herbicide Use Rate Table (Potatoes) Preemergence Application			
Broadcast Rate	Fluid Ounces Crossing CA per acre		
	Soil Texture		
% Organic Matter	Coarse	Medium	Fine
<1.5	3.0 – 4.5	3.0 – 4.5	3.75 – 5.25
1.5-3.0	3.0 – 4.5	3.75 – 6.0	4.5 – 6.0
>3	4.5 – 6.0	5.25 – 6.75	6.0 – 8.0
*Refer to the previous information on soil types under the COARSE, MEDIUM, and FINE categories Use higher rates for soils of pH less than 7.0 and lower rates for pH greater than 7.0 within the rate range.			

Ground and Aerial Applications (23.1)

Apply Crossing CA Herbicide by aerial application as a preemergence treatment following planting and after dragoff, but prior to potato emergence. Optimum performance can be achieved if Crossing CA Herbicide is applied to the soil surface and either rainfall or overhead irrigation is used to activate the product. If no moisture is received within 7 days following application in areas without irrigation, a shallow incorporation (less than 2 inches) may be needed prior to weed and potato emergence to activate the product. Select the appropriate use rate based on soil texture and organic matter as shown in Table 9 above. For control of emerged weeds at the time of the Crossing CA application, an appropriate burndown herbicide and adjuvants labeled for potatoes may be tankmixed with Crossing CA to control these weeds. Do not apply Crossing CA Herbicide if the potatoes have emerged from the soil as undesirable crop response may occur. Crossing CA Herbicide may be tankmixed with other soil-applied herbicides labeled for use in potatoes to improve weed management and increase weed control spectrum.

Apply Crossing CA Herbicide in a minimum of 10 gallons of spray by ground application and 5 gallons of spray by air.

Chemigation Applications (23.2)

Crossing CA Herbicide may be applied to potatoes through sprinkler irrigation systems including center pivot, lateral move, end tow, solid set or hand move irrigation systems. Apply Crossing CA Herbicide prior to potato emergence using sufficient water (0.25 to 0.5 inch per acre) to provide thorough soil surface coverage, but to avoid runoff of irrigation water. Crossing CA Herbicide may be applied with other products labeled for chemigation use in potatoes.

It is important to note that irrigation with highly alkali[illegible]ater (high pH) following a Crossing CA Herbicide so[illegible]plication may significantly increase the amount of sulfentrazone available in soil solution. Irri[illegible].n with water having a pH greater than 7.5 could resu[illegible]adverse crop response. This response will ultimately depend on initial Crossing CA Herbicide application rate, application timing, amount and pH of irrigation water; the sensitivity of the crop and the crop growth stage when irrigated. The risk of adverse crop response will lessen with advances in the crop growth stage.

Weeds Controlled
When applied according to directions, Crossing CA Herbicide will provide control of:

Amaranth, Palmer	Nightshade, Eastern black
Filaree, redstem	Pigweed, redroot
Kochia (ALS and Triazine Resistant)	Pigweed, smooth
Lambsquarters, common	Thistle, Russian
Morningglory, ivyleaf	Waterhemp, common
Morningglory, tall	Waterhemp, tall

For information on other weeds not listed above, refer to Weed Controlled section (Table 5) in this label.

Precautions
Potato varieties may vary in their response to herbicide applications. When using Crossing CA Herbicide on an untested variety, always determine the crop tolerance before planting. Some potato varieties, including Sangre, Shepody and Snowden, have shown sensitivity to Crossing CA Herbicide. Caution should be used when planting these varieties on marginal coarse soils.

These Crop Specific Use directions are based upon the interactive effects of Crossing CAL Herbicide (sulfentrazone) and the primary soil and environmental factors, which affect its activity on various weed species and tolerance among crops. The user is required to observe the instructions and guidance previously presented under General Application Instructions, General Crossing CA Herbicide Product Use Rates, Rotational Crop Guidelines, Replanting Instructions, Weed Controlled and any other section of this label pertinent to the anticipated crop use. It is important to note that not all varieties or cultivars of a given crop species have been evaluated under treatment with Crossing CA Herbicide. Consult university or extension weed management specialists for additional information on specific local varieties or cultivars and any other pertinent information on Crossing CA Herbicide under specific local conditions.

Restrictions
Do not use on soils classified as sand, which have less than 1% organic matter.

Do not apply Crossing CA Herbicide after potato emergence from the soil as undesirable crop response may occur.

Do not apply more than 8.0 fluid ounces (0.25 pound active) per acre per twelve-month period. The twelve-month period is considered to begin upon the initial Crossing CA application.

SOYBEANS (24.0)

Table 10

Crossing CA Herbicide Use Rate Table (Soybeans)
Fall, Spring Early Preplant, Preemergence, and Preplant Incorporated Applications

Broadcast Rate	Fluid Ounces Crossing CA Herbicide per acre		
	Soil Texture		
% Organic Matter	Coarse	Medium	Fine
<1.5	4.5 – 6.0	6.0 – 8.0	8.0
1.5-3	6.0 – 8.0	8.0 – 10.1	10.1
>3	8.0 – 10.1	10.1 – 12.0	12.0

Refer to the previous information on soil types under the COARSE, MEDIUM, and FINE categories
Use higher rates for soils of pH less than 7.0 and lower rates for pH greater than 7.0 within the rate range.

Ground and Aerial Applications (24.1)
Apply Crossing CA Herbicide in conventional tillage, conservation tillage, reduced tillage or no-tillage cropping systems using rates recommended in the Crossing CA Herbicide Use Rate Table 10. Crossing CA Herbicide may be applied with ground or aerial sprayers calibrated to deliver a minimum of 10 gallons of finished spray by ground application and 5 gallons of finished spray by air. Use nozzle types and arrangements that will provide optimum coverage while producing a minimal amount of fine droplets. Apply sufficient spray volume to achieve adequate coverage.

Preplant Incorporated and Preemergence Applications (24.2)
Crossing CA Herbicide can be applied prior to planting or up to 3 days after planting. When applications after planting are delayed greater than 3 days after planting, injury may occur if seeds are germinating. Crossing CA Herbicide may be applied preemergence or preplant incorporated. For preplant incorporated applications, incorporation must be uniform and no deeper than 2 inches. Improper soil incorporation may result in erratic weed control and/or crop injury. Crossing CA Herbicide applied near or after crop emergence may cause severe injury to the crop. Crossing CA Herbicide can be applied alone or in combination with other labeled soybean herbicides. Crossing CA Herbicide may be followed by labeled postemergence soybean herbicides for increased control of grass and broadleaf weeds. Always follow the most restrictive label when tank mixing. When using Crossing CA Herbicide in no-till or minimum till cropping systems, tank mix with an appropriate burndown herbicide for improved control of existing weeds.

Fall Applications (24.3)
Crossing CA Herbicide may be applied as a fall treatment to the stubble of harvested crops for the burndown of existing vegetation and preemergence control of labeled weeds the following spring in no-till and conservation tillage production systems. Fall applications of Crossing CA Herbicide must be made in weed control programs that include, as needed, spring applications of preplant, preemergence or postemergence herbicides for the following crop season. Crossing CA Herbicide can be applied to the stubble of a harvested crop in no-till or to the soil surface of conservation tillage fields after harvest when the sustained soil temperature is 55 degrees F and falling at a soil depth of 4 inches. Apply after September 30 in those areas North of Interstate 90 and after October 15 in those areas North of Interstate 70. Do not apply Crossing CA Herbicide as a fall treatment South of Interstate 70. Applications to ridge till production systems must be made after the formation of ridges or bedded.

If weeds are emerged at the time of application, utilize a tank mixture with a suitable burndown herbicide at labeled rates. Fall applied burndown treatments should be made with a minimum of 20 gallons per acre to achieve adequate coverage of the weeds being treated. When making burndown applications to emerged weeds, the addition of adjuvants such as COC or MSO to the spray mixture can be used to enhance the burndown activity of the application.

Weeds Controlled
When Applied according to directions, Crossing CA Herbicide will provide control of:

Amaranth, Palmer	Nightshade
Copperleaf, hophornbeam	Pigweed, spp.
Kochia (ALS and Triazine Resistant)	Sida, prickly
Lambsquarters, common	Thistle, Russian
Morningglory, spp.	Waterhemp, spp.

For information on other weeds not listed above, refer to Weed Controlled section (Table 5) in this label.

Precautions
When applying Crossing CA Herbicide with other registered herbicides, refer to specific label information on precautions, instructions, limitations, application methods and timings, and weeds controlled.

Crossing CA Herbicide is especially effective against a wide range of economic broadleaf and grass weeds. The same processes that sulfentrazone affects in these weeds can, under certain conditions, be affected in soybeans. These conditions include high pH (7.5 and above), cool weather, prolonged and excessive moisture, seedling diseases, and any other condition, including poor agronomic practices, that are unfavorable to vigorous crop growth. Such effects in soybeans are often observed as stunting and discoloration. The duration of these effects are somewhat dependent on the duration of the adverse growing conditions. These effects lessen and generally diminish with the return to normal growing conditions.

These Crop Specific Use directions are based upon the interactive effects of Crossing CA Herbicide (sulfentrazone) and the primary soil and environmental factors, which affect its activity on various weed species and tolerance among crops. The user is required to observe the instructions and guidance previously presented under General Application Instructions, General Crossing CA Herbicide Product Use Rates, Rotational Crop Guidelines, Replanting Instructions, Weed Controlled and any other section of this label pertinent to the anticipated crop use. It is important to note that not all varieties or cultivars of a given crop species have been evaluated under treatment with Crossing CA Herbicide. Consult university or extension weed management specialists for additional information on specific local varieties or cultivars and any other pertinent information on Crossing CA Herbicide under specific local conditions.

Restrictions
Do not apply more than 12.0 fluid ounces (0.375 lbs active) per acre of Crossing CA Herbicide per twelve-month period. The twelve-month period is considered to begin upon the initial Crossing CA Herbicide application.

Do not use on soils classified as sand, which have less than 1% organic matter.

Do not apply to frozen soils or existing snow cover to prevent Crossing CA Herbicide runoff from rain or snowmelt that may occur following application.

Do not apply after crop seed germination.

SUGARCANE (25.0)

Table 11

Crossing CA Herbicide Use Rate Table (Sugarcane)
Planting Time and Lay-by Applications

Broadcast Rate	Fluid Ounces Crossing CA Herbicide per acre		
	Soil Texture		
% Organic Matter	Coarse	Medium	Fine
<1.5	4.5 – 6.0	6.0 – 8.0	8.0
1.5-3	6.0 – 8.3	8.0 – 10.1	10.1
>3	8.0 – 10.1	10.1 – 12.0	12.0

Refer to the previous information on soil types under the COARSE, MEDIUM, and FINE categories
Use higher rates for soils of pH less than 7.0 and lower rates for pH greater than 7.0 within the rate range.

Apply Crossing CA Herbicide as a broadcast or banded preemerge soil applied treatment for the control of broadleaf weeds, grasses and sedges in sugarcane. Refer to the Crossing CA Herbicide Product Use Rate Section and Table 11 for specific use information.

Planting Time Applications (25.1)
Apply Crossing CA Herbicide preemerge to newly planted or ratoon sugarcane. Use the higher rate on clay soils and/or soils with organic matter content higher than 2 percent. Apply either by air in a minimum of 5 gallons of spray per acre or by ground equipment in a minimum of 15 gallons of spray per acre. Crossing CA Herbicide may be applied with other herbicides registered for use in sugarcane.

Aerial Applications (25.2)
Crossing CA Herbicide may be applied by air in a minimum of 5 gallons of finished spray per acre. Crossing CA Herbicide may be applied with other herbicides or insecticides registered for aerial application in sugarcane.

Lay-by Applications (25.3)
Apply Crossing CA Herbicide as a directed spray to sugarcane at lay-by timing. Use the higher rate on clay soils and/or soils with organic matter content higher than 2 percent. Apply as a directed spray with ground equipment in a minimum of 15 gallons of spray per acre. Crossing CA Herbicide may be applied with other herbicides registered for use in sugarcane.

Weeds Controlled
When applied according to directions, Crossing CA Herbicide will provide control of:

Morningglory, entireleaf	Morningglory, tall
Morningglory, ivyleaf	Pigweed, red root
Morningglory, red	Nutsedge, yellow

For information on other weeds not listed above, refer to Weed Controlled section (Table 5) in this label.

Precautions
These Crop Specific Use directions are based upon the interactive effects of Crossing CA Herbicide (sulfentrazone) and the primary soil and environmental factors, which affect its activity on various weed species and tolerance among crops. The user is required to observe the instructions and guidance previously presented under General Application Instructions, General Crossing CA Herbicide Product Use Rates, Rotational Crop Guidelines, Replanting Instructions, Weed Controlled and any other section of this label pertinent to the anticipated crop use. It is important to note that not all varieties or cultivars of a given crop species have been evaluated under treatment with Crossing CA Herbicide. Consult university or extension weed management specialists for additional information on specific local varieties or cultivars and any other pertinent information on Crossing CA Herbicide under specific local conditions.

Restrictions
Do not apply within 120 days of harvest.

Do not use on soils classified as sand, which have less than 1% organic matter.

Do not allow spray to contact crop leaves.

Do not apply more than 12.0 fluid ounces (0.375 lbs active) per acre of Crossing CA Herbicide per acre per twelve-month period. The twelve-month period is considered to begin upon the initial Crossing CA Herbicide application.

SUNFLOWERS (26.0)

Table 12

Crossing CA Herbicide Use Rate Table (Sunflowers) Fall, Early Spring Preplant, Preemergence, and Preplant Incorporated Applications			
Broadcast Rate	**Fluid Ounces Crossing CA Herbicide per acre**		
	Soil Texture		
% Organic Matter	**Coarse**	**Medium**	**Fine**
<1.5	3.0 - 3.75	3.0 – 4.5	3.75 – 5.25
1.5-3.0	3.0 – 4.5	3.75 – 6.0	4.5 – 6.75
>3	3.75 – 6.0	4.5 – 6.75	6.0 – 8.0
Refer to the previous information on soil types under the COARSE, MEDIUM, and FINE categories Use higher rates for soils of pH less than 7.0 and lower rates for pH greater than 7.0 within the rate range.			

Fall Applications (26.1)
Crossing CA Herbicide may be applied in the fall as a preplant treatment to control or suppress weeds prior to planting sunflowers the following spring. Crossing CA Herbicide should be applied to the stubble or soil surface and allow moisture from rainfall or snow to move the product into the soil. Do not mechanically incorporate in the fall or spring as this can destroy the herbicide barrier and allowing weed escapes to occur. Do not apply to frozen soils or to existing snow cover to prevent Crossing CA Herbicide runoff from rain or snow melt that may occur following application. Crossing CA Herbicide may be tank mixed with other residual soil herbicides that are labeled for fall use on sunflowers. If weeds are emerged at the time of Crossing CA Herbicide application, use a burndown herbicide such as glyphosate or paraquat at the full-labeled rate in combination with Crossing CA Herbicide or split application as needed. Select the appropriate rate from Table 12 above within the correct soil type and organic matter range. When applying Crossing CA Herbicide in the fall, use a mid to high rate within the rate range for the appropriate soil type and organic matter.

Early Preplant and Preemergence (Spring Applications) (26.2)
Crossing CA Herbicide may be applied preplant on the soil surface in the spring to control weeds in sunflowers. Crossing CA Herbicide can be applied early preplant prior to planting up to 3 days after planting as a preemerge soil application if seedlings have not broken the soil surface and if the seed furrow is completely closed. For preemerge applications greater than 3 weeks prior to planting, use the high rate within the appropriate rate range for the soil and organic matter type listed in the use rate chart above (Table 12). Crossing CA Herbicide can be tank mixed with other preemerge herbicides labeled for sunflower use. If dry conditions persist following preemerge application of Crossing CA Herbicide, a shallow incorporation may be needed to incorporate and activate the herbicide. If weeds are emerged at the time of Crossing CA Herbicide application, use a burndown herbicide at the full-labeled rate in combination with Crossing CA Herbicide or split application as needed.

Preplant Incorporated (PPI) (26.3)
Crossing CA Herbicide may be applied as a Preplant Incorporated treatment in the spring prior to planting in reduced and conventional tillage sunflowers. Crossing CA Herbicide should be shallowly incorporated in the soil no deeper than 2 inches. Incorporating Crossing CA Herbicide deeper than 2 inches can result in inconsistent weed control. Use the appropriate rate from Table 9 above for the soil texture, organic matter, and pH level. Crossing CA Herbicide can be tankmixed with other soil-applied herbicides labeled for preplant incorporation in sunflowers.

Weeds Controlled
When applied according to directions, Crossing CA Herbicide will provide control of:

Amaranth, Palmer	Pigweed, red root
Filaree, redstem	Pigweed, smooth
Kochia (ALS and Triazine Resistant)	Sida, prickly
Lambsquarters, common	Thistle, Russian
Morningglory, ivyleaf	Waterhemp, common
Morningglory, tall	Waterhemp, tall
Nightshade, Eastern black	

For information on other weeds not listed above, refer to Weed Controlled section (Table 5) in this label.

Precautions
When applying Crossing CA Herbicide to coarse textured soils, it is recommended that growers allow a minimum of 7-14 days from application to planting. Best results are achieved with Crossing CA Herbicide when applications are made early preplant and greater than 14 days before planting.

Some adverse crop response may occur on coarse textured soils with low organic matter (less than 1.5%) and pH of 7.8 or higher, or on highly eroded soils, or in areas of calcareous outcroppings. Crossing CA Herbicide use rates should be reduced in those areas. Inadequate seed furrow closure or shallow planting (less than 1.0 inch) may result in undesirable crop response. As expected, poor growing conditions such as excessive moisture, low temperatures, soil compaction and diseases may also cause undesirable crop response.

These Crop Specific Use directions are based upon the interactive effects of Crossing CA Herbicide (sulfentrazone) and the primary soil and environmental factors, which affect its activity on various weed species and tolerance among crops. The user is required to observe the instructions and guidance previously presented under General Application Instructions, General Crossing CA Herbicide Product Use Rates, Rotational Crop Guidelines, Replanting Instructions, Weed Controlled and any other section of this label pertinent to the anticipated crop use. It is important to note that not all varieties or cultivars of a given crop species have been evaluated under treatment with Crossing CA Herbicide. Consult university or extension weed management specialists for additional information on specific local varieties or cultivars and any other pertinent information on Crossing CA Herbicide under specific local conditions.

Restrictions
Do not apply more than 8.0 fluid ounces (0.25 pound active) of Crossing CA Herbicide per twelve-month period to sunflowers. The twelve-month period is considered to begin upon the initial Crossing CA Herbicide application.

Do not apply to frozen soils or existing snow cover to prevent Crossing CA Herbicide runoff from rain or snowmelt that may occur following application.

Do not use on soils classified as sand, which have less than 1% organic matter.
Do not incorporate greater than 2 inches deep.

TOBACCO (Burley, Flue-Cured and D (27.0)

Table 13

Crossing CA Herbicide Use Rate Table (Tobacco) Preemergence and Preplant Incorporated Applications			
Broadcast Rate	Fluid Ounces Crossing CA per acre		
	Soil Texture		
% Organic Matter	Coarse	Medium	Fine
<1.5	4.5 – 6.0	6.0 – 8.0	8.0
1.5-3	6.0 – 8.0	8.0 – 10.1	10.1
>3	8.0 – 10.1	10.1 – 12.0	12.0
Refer to the previous information on soil types under the COARSE, MEDIUM, and FINE categories Use higher rates for soils of pH less than 7.0 and lower rates for pH greater than 7.0 within the rate range.			

Crossing CA Herbicide may be surface applied or preplant incorporated (to a depth no greater than 2 inches) from 14 days to 12 hours days prior to transplanting tobacco. Incorporating Crossing CA Herbicide deeper than 2 inches can result in inconsistent weed control.

Broadcast apply the appropriate Crossing CA Herbicide rate from Table 14 above, in a minimum of 10 gallons per acre of water, to the soil prior to transplanting.

Non-Bedded (Fields where raised beds are NOT formed prior to transplanting) (27.1)
Perform all accepted cultural practices for land preparation, fertilizer/fungicide incorporation, etc. prior to the application of Crossing CA Herbicide. Once the field has been prepared for planting, Crossing CA Herbicide may be surface applied or lightly preplant incorporated from 14 days to 12 hours prior to transplanting.

If Crossing CA Herbicide is surface applied and it is necessary to remove equipment tracks from the field after application but prior to transplanting, any light finishing equipment may be used providing the soil is not disturbed to a depth greater than 2 inches.

If timely cultivations are not performed following a pre-transplant surface application, reduced/unacceptable weed control may occur in the drill.

Bedded (Fields where raised beds ARE formed PRIOR to transplanting) (27.2)
Apply Crossing CA Herbicide to formed beds as a surface application from 14 days to 12 hours prior to transplanting. If it is customary to drag/knock down beds prior to transplanting, this procedure must be performed prior to the Crossing CA Herbicide application.

When incorporating prior to bedding, Crossing CA Herbicide must be thoroughly and uniformly incorporated to a depth no greater than 2 inches to avoid concentrating Crossing CA Herbicide in the bed.

If initial transplanting fails to produce a uniform stand, tobacco may be replanted. DO NOT re-treat field with a second application of Crossing CA Herbicide, or any other herbicide containing sulfentrazone. DO NOT re-bed. Re-transplant into previously formed, treated beds.

For broad spectrum and optimum grass weed control a grass herbicide application will be required.

Weeds Controlled
When Applied according to directions, Crossing CA Herbicide will provide control of:

Amaranthus, livid	Pigweed, redroot
Filaree, redstem	Pigweed, smooth
Galinsoga, hairy	Sida, prickly
Lambsquarters, common	Signalgrass, broadleaf
Morningglory, ivyleaf	Smartweed, Pennsylvania
Morningglory, tall	

For information on other weeds not listed above, refer to Weed Controlled section (Table 5) in this label.

Precautions
Poor agronomic practices, unfavorable pH soils, diseases, cold weather, excessive moisture, drought or other conditions unfavorable to normal plant growth may adversely effect the growth of tobacco transplants. Weakened transplants may be more susceptible to herbicide response and diseases, particularly under poor drainage or compacted soil conditions or when the soil has been saturated for long periods of time. Contact your State Agricultural Extension Service Specialist for consultation as to the agronomic recommendations suited for your tobacco varieties and local conditions. Temporary stunting of tobacco may occur if transplants are set too shallowly, or if heavy rainfall occurs immediately following transplanting. Splashing of treated soil onto tobacco leaves may cause some localized and inconsequential necrosis. Use sound transplanting practices that insure treated soil will not wash or crust over tobacco plants.

These Crop Specific Use directions are based upon the interactive effects of Crossing CA (sulfentrazone) and the primary soil and environmental factors, which affect its activity on various weed species and tolerance among crops. The user is required to observe the instructions and guidance previously presented under General Application Instructions, General Crossing CA Product Use Rates, Rotational Crop Guidelines, Replanting Instructions, Weed Controlled and any other section of this label pertinent to the anticipated crop use. It is important to note that not all varieties or cultivars of a given crop species have been evaluated under treatment with Crossing CA Herbicide. Consult university or extension weed management specialists for additional information on specific local varieties or cultivars and any other pertinent information on Crossing CA Herbicide under specific local conditions.

Restrictions
Do not use on Shade Grown Tobacco

Do not apply Crossing CA Herbicide to soils classified as sands containing less than 1% organic matter.

Do not use Crossing CA Herbicide in tobacco seeding beds or greenhouses.

Do not apply Crossing CA Herbicide post-transplant as unacceptable injury may occur.

Do not perform tillage practices that concentrate Crossing CA Herbicide into the bed or crop injury may occur.

Do not apply more than 12.0 fluid ounces (0.375 lbs active) per acre of Crossing CA Herbicide per acre per twelve-month period. The twelve-month period is considered to begin upon the initial Crossing CA application.

Do not incorporate greater than 2 inches deep.

VEGETABLE CROPS

Before applying Crossing CA Herbicide to vegetable crops, users, producers, and/or applicators must read and follow the information presented in the Conditions of Sale and Limitation of Warranty and Liability section on page 3 of this label.

ASPARAGUS (28.0)

Table 14

Crossing CA Herbicide Use Rate Table (Asparagus) Spring Preemergence Applications	
Broadcast Rate	Fluid Ounces Crossing CA Herbicide per acre
	Soil Texture

% Organic Matter	Coarse	Medium	Fine
<1.5	4.5 – 6.0	6.0 – 8.0	8.0
1.5-3	6.0 – 8.0	8.0 – 10.1	10.1
>3.0	8.0 – 10.1	10.1 – 12.0	12.0
Refer to the use rate information on soil types under the COARSE, MEDIUM, and FINE categories. Use higher rates for soils of pH less than 7.0 and lower rates for pH greater than 7.0 within the rate range.			

Apply Crossing CA Herbicide as a broadcast treatment to crowns established for one or more years.

Apply in the spring before the crop and weeds emerge. Crossing CA Herbicide should be applied at 4.5 to 12 fluid ounces (0.141 to 0.375 pound active) per acre in 10 to 40 gallons of finished spray per acre. Crossing CA Herbicide may be applied with other pesticides registered for use with asparagus.

Weeds Controlled
When Applied according to directions, Crossing CA Herbicide will provide control of :

Amaranth, Palmer	Nightshade, Eastern black
Galinsoga, hairy	Nutsedge, yellow
Lambsquarters, common	Pigweed, redroot
Morningglory, ivyleaf	Pigweed, smooth

For information on other weeds not listed above, refer to Weed Controlled section (Table 5) in this label.

Precautions
These Crop Specific Use directions are based upon the interactive effects of Crossing CA Herbicide (sulfentrazone) and the primary soil and environmental factors, which affect its activity on various weed species and tolerance among crops. The user is required to observe the instructions and guidance previously presented under General Application Instructions, General Crossing CA Herbicide Product Use Rates, Rotational Crop Guidelines, Replanting Instructions, Weed Controlled and any other section of this label pertinent to the anticipated crop use. It is important to note that not all varieties or cultivars of a given crop species have been evaluated under treatment with Crossing CA Herbicide. Consult university or extension weed management specialists for additional information on specific local varieties or cultivars and any other pertinent information on Crossing CA Herbicide under specific local conditions.

Restrictions
Do not apply within 14 days prior to harvest.

Do not apply more than 12.0 fluid ounces (0.375 pound active) per acre per 12-month period.

Do not make more than one Crossing CA Herbicide application per acre per 12-month period. The twelve-month period is considered to begin upon the initial Crossing CA Herbicide application.

Do not use on soils classified as sand, which have less than 1% organic matter.

CABBAGE (Transplanted Only) (29.0)

Table 15

Crossing CA Herbicide Use Rate Table (Cabbage) Fall or Spring Early Preplant, Preemergence, and Preplant Incorporated Applications			
Broadcast Rate	**Fluid Ounces Crossing CA Herbicide per acre**		
	Soil Texture		
% Organic Matter	**Coarse**	**Medium**	**Fine**
<1.5%	2.25 – 3.0	3.0 – 4.5	3.0 – 6.0
1.5-3.0 %	3.0 – 6.0	6.0 – 9.0	6.0 – 9.0
>3.0 %	6.0 – 9.0	6.0 – 12.0	6.0 – 12.0
Refer to the previous information on soil types under the COARSE, MEDIUM, and FINE categories. Use higher rates for soils of pH less than 7.0 and lower rates for pH greater than 7.0 within the rate range.			

Early Preplant (Fall Application or Spring Application) (29.1)
Crossing CA Herbicide may be applied in the fall or spring preceding the growing season to control weeds prior to or up to the planting or transplanting of cabbage. Crossing CA Herbicide may be applied in the spring from 60 days prior to planting up to planting time. Crossing CA Herbicide should be applied to the harvested crop stubble or soil surface without incorporation. Moisture in the form of rain or snow will move and activate the product into the soil. Do not mechanically incorporate in the fall or spring after application as this may destroy the herbicide barrier and weed escapes can occur. Do not apply to frozen soils to prevent Crossing CA Herbicide runoff from rain or snow that may occur following application. Crossing CA Herbicide may be tankmixed with other burndown herbicides to control emerged weeds in the fall or spring or with residual soil herbicides that are labeled for fall use on cabbage. Use the full, recommended rates of burndown herbicides in combination with Crossing CA Herbicide, or split applications as needed. Observe all precautions, instructions, and rotational cropping guidelines of each product's label when tank mixing, including all references to potential carryover and crop injury warnings or restrictions.

Preplant Incorporated (PPI) (29.2)
Crossing CA Herbicide may be applied as a preplant incorporated treatment in the spring prior to transplanting of cabbage. Do not incorporate to depths greater than 2 inches. Crossing CA Herbicide can be tankmixed with other burndown or soil-applied herbicides labeled for use in cabbage. Use the full, recommended rates of burndown herbicides or split applications as needed. Observe all precautions, instructions and rotational cropping guidelines of each product's label when tank mixing including all references to potential carryover and crop injury warnings or restrictions.

Transplant Cabbage (29.3)
Crossing CA Herbicide may be applied pre-emergence as a broadcast or banded treatment to transplanted cabbage only. Applications should be made broadcast or banded treatment prior to transplanting. Crossing CA Herbicide may be applied as a banded treatment into the row middles within 72 hours after transplanting.

Weeds Controlled
When Applied according to directions, Crossing CA Herbicide will provide control of:

Galinsoga, hairy	Waterhemp, common
Lambsquarters, common	Waterhemp, tall

Pigweed, redroot	

For information on other weeds not listed above, refer to Weed Controlled section (Table 5) in this label.

Precautions
These Crop Specific Use directions are based upon the interactive effects of Crossing CA Herbicide (sulfentrazone) and the primary soil and environmental factors, which affect its activity on various weed species and tolerance among crops. The user is required to observe the instructions and guidance previously presented under General Application Instructions, General Crossing CA Herbicide Product Use Rates, Rotational Crop Guidelines, Replanting Instructions, Weed Controlled and any other section of this label pertinent to the anticipated crop use. It is important to note that not all varieties or cultivars of a given crop species have been evaluated under treatment with Crossing CA Herbicide. Consult university or extension weed management specialists for additional information on specific local varieties or cultivars and any other pertinent information on Crossing CA Herbicide under specific local conditions.

Restrictions
Do not apply more than 12 fluid ounces (0.375 pound active) per acre of Crossing CA Herbicide per application or per twelve-month period. The twelve-month period is considered to begin upon the initial Crossing CA Herbicide application.

Do not use on soils classified as sand, which have less than 1% organic matter.

Do not incorporate to depths greater than 2 inches.

DRY SHELLED BEANS AND PEAS (30.0)

Dried cultivars of bean (*Lupinus*); bean (*Phaseolus*)(includes field bean, kidney bean, lima bean (dry), navy bean, pinto bean, tepary bean); bean (*Vigna*) (includes adzuki bean, blackeyed pea, catjang, cowpea, crowder pea moth bean, lentil, mung bean, rice bean, southern pea, urd bean); broad bean (dry); chickpea; guar; lab lab bean; pea (*Pisum*) (includes field pea) and pigeon pea.

Table 16

Crossing CA Use Rate Table (Dry Shelled Beans Peas) Fall or Spring Early Preplant, Preemergence, and Preplant Incorporated Applications			
Broadcast Rate	**Fluid Ounces Crossing CA per acre**		
	Soil Texture		
% Organic Matter	**Coarse**	**Medium**	**Fine**
<1.5%	2.25 – 3.0	3.0 – 4.5	3.0 – 4.5
1.5-3.0 %	3.0 – 4.5.0	3.75 – 6.0	4.5 – 6.0
>3.0 %	3.75 – 6.0	4.5 – 6.75	5.25 – 8.0
Refer to the previous information on soil types under the COARSE, MEDIUM, and FINE categories Use higher rates for soils of pH less than 7.0 and lower rates for pH greater than 7.0 within the rate range.			

Early Preplant and Fall Applications (30.1)
Crossing CA Herbicide may be applied in the fall as a preplant treatment to control or suppress weeds prior to planting the following spring. Crossing CA Herbicide should be applied to the stubble or soil surface and allow moisture from rainfall or snow to move the product into the soil. Do not mechanically incorporate in the fall or spring as this can destroy the herbicide barrier and weed escapes can occur. Do not apply to frozen soils or to existing snow cover to prevent Crossing CA Herbicide runoff from rain or snow melt that may occur following application. Crossing CA Herbicide may be tank mixed with other residual soil herbicides that are labeled for fall use on dry bean and dry peas. If weeds are emerged at the time of Crossing CA Herbicide application, use a burndown Herbicide such as glyphosate or paraquat at the full-labeled rate in combination with Crossing CA Herbicide or split application as needed. Select the appropriate rate from Table 16 above within the correct soil type and organic matter range. When applying Crossing CA Herbicide in the fall, use a mid to high rate within the rate range for the appropriate soil type and organic matter.

Early Preplant and Preemergence (Spring Applications) (30.2)
Crossing CA Herbicide may be applied preplant on the soil surface in the spring to control weeds in dry bean and dry peas. Crossing CA Herbicide can be applied early preplant prior to planting up to 3 days after planting as a preemerge soil application if seedlings have not broken the soil surface and if the seed furrow is completely closed. For preemerge applications greater than 3 weeks prior to planting, use the high rate within the appropriate rate range for the soil and organic matter type listed in the use rate chart above Table16. Crossing CA Herbicide can be tank mixed with other preemerge herbicides labeled for dry bean and dry peas use. If dry conditions persist following preemerge application of Crossing CA Herbicide, a shallow incorporation may be needed to incorporate and activate the herbicide. If weeds are emerged at the time of Crossing CA Herbicide application, use a burndown herbicide at the full-labeled rate in combination with Crossing CA Herbicide or split application as needed.

Preplant Incorporated (PPI) (30.3)
Crossing CA Herbicide may be applied as a Preplant Incorporated treatment in the spring prior to planting in reduced and conventional tillage dry bean and dry pea. Do not incorporate to depths greater than 2 inches. Crossing CA Herbicide use rates for PPI applications are similar to those used in preplant and preemergence applications. Crossing CA Herbicide can be tankmixed with other burndown or soil-applied herbicides labeled for use in dry bean or dry pea. Use the full, recommended rates of burndown herbicides, or split applications as needed. Observe all precautions, instructions, and rotational cropping guidelines of each product's label when tank mixing, including all references to potential carryover and crop injury warnings or restrictions.

Weeds Controlled
When applied according to directions, Crossing CA Herbicide will provide control of:

Amaranth, Palmer	Pigweed, red root
Filaree, redstem	Pigweed, smooth
Kochia (ALS and Triazine Resistant)	Sida, prickly
Lambsquarters, common	Thistle, Russian
Morningglory, ivyleaf	Waterhemp, common
Morningglory, tall	Waterhemp, tall
Nightshade, Eastern black	

For information on other weeds not listed above, refer to Weed Controlled section (Table 5) in this label.

Precautions
When applying Crossing CA Herbicide to coarse textured soils, it is recommended that growers allow a minimum of 7-14 days from application to planting. Best results are achieved with Crossing CA Herbicide when applications are made early preplant and greater than 14 days before planting. Under extended periods of dry weather, adequate weed control may not be achieved

Some adverse crop response may occur on coarse textured soils with low organic matter (less than 1.5%) and pH of 7.8 or higher, or on highly eroded soils, or in areas of calcareous outcroppings. Crossing CA Herbicide use rates should be reduced in those areas. Inadequate seed furrow closure or shallow planting (less than 1.0 inch) may result in undesirable crop response. As expected, poor growing conditions such as excessive moisture, low temperatures, soil compaction and diseases may also cause undesirable crop response.

These Crop Specific Use directions are based upon the interactive effects of Crossing CA Herbicide (sulfentrazone) and the primary soil and environmental factors, which affect its activity on various weed species and tolerance among crops. The user is required to observe the instructions and guidance previously presented under General Application Instructions, General Crossing CA Herbicide Product Use Rates, Rotational Crop Guidelines, Replanting Instructions, Weed Controlled and any other section of this label pertinent to the anticipated crop use. It is important to note that not all varieties or cultivars of a given crop species have been evaluated under treatment with Crossing CA Herbicide. Consult university or extension weed management specialists for additional information on specific local varieties or cultivars and any other pertinent information on Crossing CA Herbicide under specific local conditions.

Restrictions

Do not apply more than 8.0 fluid ounces (0.25 pound active) total per twelve-month period. The twelve-month period is considered to begin upon the initial Crossing CA application.

Do not apply after crop emerges, or if the seedling is close to the soil surface.

Do not incorporate to depths greater than 2 inches.

Do not apply to frozen soils or to existing snow cover to prevent Crossing CA Herbicide runoff from rain or snow melt that may occur following application.

Do not use on soils classified as sand, which have less than 1% organic matter.

Do not use on soils classified as sand, which have less than 1% organic matter.

HORSERADISH (31.0)

Table 17

Crossing CA Herbicide Use Rate Table (Horseradish) Fall or Spring Early Preplant, Preemergence, and Preplant Incorporated Applications			
Broadcast Rate	**Fluid Ounces Crossing CA Herbicide per acre**		
	Soil Texture		
% Organic Matter	**Coarse**	**Medium**	**Fine**
<1.5%	2.25 – 4.5	3.0 – 4.5	3.0 – 4.5
1.5-3.0 %	4.5 – 6.0	6.0 – 8.0	6.0 – 8.0
>3.0 %	6.0 – 7.5	6.0 – 8.0	6.0 – 8.0
Refer to the previous information on soil types under the COARSE, MEDIUM, and FINE categories Use higher rates for soils of pH less than 7.0 and lower rates for pH greater than 7.0 within the rate range.			

Crossing CA Herbicide may be applied as an preplant preemerge or preplant incorporated treatment by ground in a minimum of 15 gallons of finished spray.

Early Preplant (Fall Application or Spring Application) (31.1)

Crossing CA Herbicide may be applied in the fall or spring preceding the growing season to control or suppress weeds prior to or up to the planting of horseradish. Crossing CA Herbicide may be applied in the spring from 60 days prior to planting up to planting. Crossing CA Herbicide should be applied to the harvested crop stubble or soil surface without incorporation. Moisture in the form of rain or snow will move and activate the product into the soil. Do not mechanically incorporate in the fall or spring after application as this may destroy the herbicide barrier and weed escapes may occur. Do not apply to frozen soils to prevent Crossing CA Herbicide runoff from rain or snow that may occur following application. Crossing CA Herbicide may be tankmixed with other burndown herbicides to control emerged weeds in the fall or spring or with residual soil herbicides that are labeled for use on horseradish. Use full, recommended rates of burndown herbicides in combination with Crossing CA Herbicide, or split applications as needed. Observe all precautions, instructions, and rotational cropping guidelines of each product label when tank mixing, including all references to potential carryover and crop injury warnings or restrictions.

Preplant Incorporated (PPI) (31.2)

Crossing CA Herbicide may be applied as a preplant incorporated treatment in the spring prior to planting of horseradish. Do not incorporate to depths greater than 2 inches. Crossing CA Herbicide can be tankmixed with other burndown or soil-applied herbicides labeled for use on horseradish. Use the full, recommended rates of burndown herbicides or split applications as needed. Observe all precautions, instructions and rotational cropping guidelines of each product's label when tank mixing including all references to potential carryover and crop injury warnings or restrictions.

Pre-Emergence (PRE) (31.3)

Crossing CA Herbicide may be applied pre-emergence as a broadcast or banded treatment on horseradish. Applications should be made broadcast prior to planting, broadcast soon after planting but at least 5 days before crop emergence. Crossing CA Herbicide may be applied as a banded treatment into the row middles after crop emergence. Use the higher Crossing CA Herbicide rates on clay soils and/or soils with greater than 1% organic matter. Crossing CA Herbicide may be applied with other pesticides registered for use on horseradish.

Weeds Controlled

When applied according to directions, Crossing CA Herbicide will provide control of:

Lambsquarters, common	Pigweed, redroot
Morninglory, ivyleaf	Waterhemp, common
Nutsedge, yellow	Waterhemp, tall

For information on other weeds not listed above, refer to Weed Controlled section (Table 5) in this label.

Precautions

These Crop Specific Use directions are based upon the interactive effects of Crossing CA Herbicide (sulfentrazone) and the primary soil and environmental factors, which affect its activity on various weed species and tolerance among crops. The user is required to observe the instructions and guidance previously presented under General Application Instructions, General Crossing CA Herbicide Product Use Rates, Rotational Crop Guidelines, Replanting Instructions, Weed Controlled and any other section of this label pertinent to the anticipated crop use. It is important to note that not all varieties or cultivars of a given crop species have been evaluated under treatment with Crossing CA Herbicide. Consult university or extension weed management specialists for additional information on specific local varieties or cultivars and any other pertinent information on Crossing CA Herbicide under specific local conditions.

Restrictions

Do not apply more than 8.0 fluid ounces (0.25 pound active) per acre of Crossing CA Herbicide per application or per twelve-month period. The twelve-month period is considered to begin upon the initial Crossing CA Herbicide application.

Do not apply directly on the crop after the crop emerges or if the seedling sprouts are close to the soil surface.

Do not use on soils classified as sand, which have less than 1% organic matter.

Do not incorporate to depths greater than 2 inches.

OIL CROPS

MINT (32.0)

Table 24

Crossing CA Herbicide Use Rate Table (Mint) For Dormant and New Planting Applications			
Broadcast Rate	**Fluid Ounces Crossing CA Herbicide per acre**		
	Soil Texture		
% Organic Matter	**Coarse**	**Medium**	**Fine**
<1.5%	4.5 – 6.0	6.0 – 8.0	8.0
1.5 - 3.0 %	6.0 – 8.0	8.0 – 10.1	10.1
>3.0 %	8.0 – 10.1	10.1 – 12.0	12.0
Refer to the previous information on soil types under the COARSE, MEDIUM, and FINE categories Use higher rates for soils of pH less than 7.0 and lower rates for pH greater than 7.0 within the rate range.			

Dormant Applications (32.1)

Apply Crossing CA Herbicide to established stands of dormant mint after post harvest and/or spring land cultivation has been completed and before emergence of new mint growth.

Split applications of Crossing CA Herbicide may be used for preemergence sequential control of winter annuals and summer annuals. Fall applications must be applied after post harvest cultivation has been completed and spring application made after spring cultivation has been completed and before emergence of new mint growth.

Apply Crossing CA Herbicide in tank-mixtures with a registered burndown herbicide to control emerged weeds at the time of application. A surfactant is recommended with these tank mixtures to improve control of the emerged weeds.

Crossing CA Herbicide may also be applied in tank mixtures with other products registered for use in mint.

New Planting Applications (32.2)

Crossing CA Herbicide may be applied to new mint plantings preemergence to the weeds and mint. The rate of application should be reduced approximately twenty five percent of the rate recommended for established plantings for particular soil characteristics. Refer to Crossing CA Herbicide Use Rate Table (Table 24) for the appropriate use rate for the soil type and organic matter content. The higher rates in the range are recommended for soils of pH less than 7.0.

Weeds Controlled

When Applied according to directions, Crossing CA Herbicide will provide control of:

Amaranth, Powell	Nutsedge, yellow
Bedstraw, catchweed	Pigweed, redroot
Chamomile, mayweed	Sheperdspurse
Kochia (ALS and Triazine Resistant)	Toadflax, yellow
Lambsquarters, common	Thistle, Russian
Morningglory, ivyleaf	Waterhemp, common
Nightshade, Eastern black	Waterhemp, tall

For information on other weeds not listed above, refer to Weed Controlled section (Table 5) in this label.

Precautions

Applications made to mint that has emerged will result in severe injury to exposed plant tissue.

Applications are recommended only to healthy mint fields. Applications to mint under stress from disease, pests and cultural or environmental conditions may result in crop injury.

Moisture in the form of rainfall or overhead irrigation is required after application to activate the herbicide

These Crop Specific Use directions are based upon the interactive effects of Crossing CA Herbicide (sulfentrazone) and the primary soil and environmental factors, which affect its activity on various weed species and tolerance among crops. The user is required to observe the instructions and guidance previously presented under General Application Instructions, General Crossing CA Herbicide Product Use Rates, Rotational Crop Guidelines, Replanting Instructions, Weed Controlled and any other section of this label pertinent to the anticipated crop use. It is important to note that not all varieties or cultivars of a given crop species have been evaluated under treatment with Crossing CA Herbicide. Consult university or extension weed management specialists for additional information on specific local varieties or cultivars and any other pertinent information on Crossing CA Herbicide under specific local conditions.

Restrictions

Apply Crossing CA Herbicide only to dormant mint or new mint plantings before new growth emerges.

Do not use on soils classified as sand, which have less than 1% organic matter.

Do not apply more than 12 fluid ounces (0.375 pound active) per twelve-month period. The twelve-month period is considered to begin upon the initial Crossing CA Herbicide application.

TURF

SOD PRODUCTION (33.0)

Crossing CA Herbicide may be applied to established seeded, sodded or sprigged turfgrasses following the second mowing for the control of key grass, sedge and broadleaf weeds. Turf grasses should have developed a good root system, a uniform stand with healthy root systems to fill in the exposed edges prior to application. Sod injury could result from application of this product on sod that is not well established or has been weakened by stresses such as unfavorable weather conditions, diseases, chemical, recent harvesting or mechanical influences.

Turf Grass Tolerance

When applied as directed, the following established turf grasses are tolerant to Crossing CA Herbicide at the recommended use rates.

Table 25 Tolerant grasses

Grass Type	Maximum Use Rate For Single Application	
Cool Season Grasses **	Fluid Ounces Crossing CA Herbicide Per Acre	Pound Active Ingredient Per Acre

Bentgrass, creeping	4	0.125
Fescue, fine * (Festuca rubra) Fescue, tall * (Festuca arundinacea) Ryegrass, perennial (Lolium perenne Bluegrass, Kentucky (Poa pratensis) Bluegrass, Rough (Poa trivialis)	4-8	0.125- 0.25
Warm Season Grasses **		
Bahiagrass (Paspalum notatum) Buffalograss (Buchloe dactyloides) Carpetgrass (Axonopus affinis) Centipedegrass (Eremochloa ophuioides) Kikuyugrass (Pennisetum clandestinum) Seashore Paspalum (Paspalum vaginatum) Zoysiagrass (Zoysia japonica) Bermudagrass (Cynadon dactylon) Bermudagrass Hybrids (Cyn Bluegrass, St. Augustinegrass (Stenotaphrum secundatum)	8-12	0.25-0.375

* Applications of Crossing CA Herbicide to certain varieties of Chewings Fine Fescue or Tall Fescue may result in undesirable plant response.

** It is important to note that not all varieties or cultivars have been evaluated under treatment with Crossing CA Herbicide. Consult university or extension weed management specialists for additional information on specific local varieties or cultivars and any other pertinent information on Crossing CA Herbicide under specific local conditions.

Applications to Reseeded, Overseeded or Sprigged Areas

Reseeding, overseeding or sprigging may be done following Crossing CA Herbicide applications to turfgrasses. If reseeding, overseeding or sprigging is done within 1 month following a Crossing CA Herbicide treatment, the establishment of desirable grasses may be inhibited. Overseeding of bermudagrass with perennial ryegrass may be done two (2) to four (4) weeks following a Crossing CA Herbicide application provided slight grass plant response can be tolerated.

Optimum reseeding and overseeding results may be obtained with the use of mechanical or power seeding equipment, and where proper soil cultivation, irrigation and fertilization practices are followed.

Adjuvant use

Good spray coverage is required for optimum control of weeds. Temporary discoloration of some sod species may result from use of surfactant. Use of surfactants is not recommended.

Postemergence Control of Sedges

Crossing CA Herbicide may be applied at the rate of four (4) to twelve (12) fluid ounces per acre to established turf grasses for the control or suppression of sedges. Select the correct Crossing CA Herbicide use rate from Table 25.

When applied as directed, Crossing CA Herbicide will provide control or suppression of the following sedges.

Table 26A

Common Name	Scientific Name
Kyllinga, green	*Kyllinga brevifolia*
Kullinga, false green	*Kyllinga gracillima*
Nutsedge, purple	*Cyperus rotundus*
Nutsedge, yellow	*Cyperus esculentus*
Sedge, cylindrical	*Cyperus retrorsus*
Sedge, globe	*Cyperus globulosus*
Sedge, Surinam	*Cyperus surinamensis*
Sedge, Texas	*Cyperus polystachyos*

Purple nutsedge: For optimum control of purple nutsedge, split applications are recommended below. Apply 4-8 ounces per acre as an initial application followed by a second application when evidence of actively growing purple nutsedge is visible. Do not exceed the maximum rate per acre based on the turf variety as listed in Table 25; tolerant grasses.

Split Application Rates for Optimum Purple Nutsedge Control

Grass Type	First Application (fl. ozs. per acre)	Second Application (fl. ozs. per acre
Cool Season Grasses	2-4 fl. ounces	2-6 fl. ounces
Warm Season Grasses	4-6 fl. ounces	4-6 fl. ounces

Allow 35 days after first application for second application.

Postemergence Control of Grassy Weeds

Crossing CA Herbicide will control or suppress specific annual grasses (Table 26 B) when applied at a rate of 4 to 12 fl oz/acre . Apply the highest rate consistent with the rate needed for turfgrass tolerance in Table 25. Rates lower than 12 fl oz/acre will generally control grasses for at least 60 days. Crossing CA Herbicide works best if applied when the annual grasses are small (pre tiller stage) and actively growing.

Table 26B

Common Name	Scientific Name
Goosegrass	*Eleusine indica*

Postemergence Control of Broadleaf Weeds

Crossing CA Herbicide will control or suppress the weeds listed in the broadleaf chart below when applied alone shortly after weeds have emerged. Crossing CA Herbicide may be applied at the rate of four (4) to twelve (12) fluid ounces per acre to established turf grasses for the control or suppression of broadleaf weeds. Select the correct Crossing CA Herbicide use rate from Table 25. For optimum results, Spartan applications should be made shortly after weeds have emerged.

Crossing CA Herbicide may be tankmixed with other herbicides, insecticides and fungicides registered for use on turfgrasses. Read and follow the label recommendations of the tank mix partner to determine turfgrass specie tolerance, use rates and application requirements. Follow all label restrictions, use directions and precautionary statements before use.

When applied as directed, Crossing CA Herbicide will provide control or suppression of the following broadleaf weeds.

Broadleaves	*Scientific Names*
Bittercress	*Cardamine spp.*
Black Medic	*Medicago lupulina*
Buttercup	*Ranunculus spp.*
Carolina geranium	*Geranium carolinianum*
Carpetweed	*Mollugo verticillata*
Chickweed, common	*Stellaria media*
Chickweed, mousear	*Cerastium vulgatum*
Cinquefoil	*Potentilla spp.*
Clover	*Trifolium spp.*
Cudweed	*Gnaphalium spp.*
Dandelion	*Taraxacum officinale*
Dock, curly	*Rumex crispus*

Evening primrose	*Oenothera biennis*
Fiddleneck	*Amsinckia spp.*
Filaree	*Erodium spp.*
Garlic, wild	*Allium vineale*
Goldenrod	*Solidago spp.*
Ground ivy	*Glechema hederasea*
Henbit	*Lamium amplexicaule*
Knotweed, prostrate	*Polygonum aviculare*
Kochia	*Kochia scoparia*
Lambsquarters, common	*Chenopodium album*
Lawn burweed	*Soliva pterosperma*
Lespedeza, common	*Lespedeza striata*
Mallow, common	*Malva neglecta*
Onion, wild	*Allium canadense*
Parsley piert	*Alchemilla arvensis*
Pigweed, redroot	*Amaranthus retroflexus*
Pigweed, tumble	*Amaranthus albus*
Pineapple weed	*Matricaria matricariodes*
Plantain, buckhorn	*Plantago lanceolata*
Puncture weed	*Tribulus terrestris*
Purslane, common	*Portulaca oleracea*
Pusley, Florida	*Richardia scabra*
Redweed	*Melochia corchorifolia*
Rocket, London	*Sisymbrium irio*
Smartweed, PA	*Polygonum pensylvanicum*
Sorrel, red	*Rumex acetosella*
Speedwell	*Veronica spp.*
Spurge, annual	*Euphorbia spp.*
Spurge, prostrate	*Euphorbia humistrata*
Spurge, spotted	*Euphorbia maculata*
Star of Bethlehem	*Ornithogalum umbellatum*
Velvetleaf	*Abutilon theophrasti*
Violet, wild	*Viola pratincola*
Woodsorrel, creeping	*Oxalis corniculata*
Woodsorrel, yellow	*Oxalis stricta*

Precautions
The use of additional surfactants may cause temporary undesirable effects to turfgrasses.

Restrictions
Sod production areas must be established three (3) months prior to the initial treatment of Crossing CA Herbicide.

Do not apply Crossing CA Herbicide to golf course greens or tees.

Do apply Crossing CA Herbicide to turf grasses not listed on this label.

Do not apply with surfactants without on-site evaluations for spray mixture compatibility and physical effects to turf grasses.

Do not graze or feed forage harvested from Crossing CA Herbicide treated areas.

Do not apply to landscape ornamental plants or ornamental beds.

Do not harvest sod within three (3) months of Crossing CA Herbicide application.

Non-CROP USES (34.0)

For Use in Railroad, Highway, Roadside, Pipeline and Utility Rights-of-Way, Industrial Areas, Fence Rows, and Other Non-crop Sites. Can Also Be Used For Selective Weed Control in Turf Sites Including Residential and Institutional Lawns, Athletic Fields, Commercial Sod Farms, Golf Course Fairways and Roughs.

DIRECTIONS FOR USE (35.0)

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.

Do not apply this product through any type of irrigation system.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your state or tribe, consult the agency responsible for pesticide regulation.

GENERAL INFORMATION (36.0)

Crossing CA Herbicide is a selective soil applied herbicide for the control of certain broadleaf weeds, grasses and sedges. When applied according to directions, it will provide control of susceptible species. Crossing CA Herbicide is formulated as flowable (suspension concentrate) containing four pounds of the active ingredient sulfentrazone per gallon.

The mode of action of Crossing CA Herbicide involves uptake by weed roots and shoots. Observe all instructions, mixing directions, application precautions and other label information of each product when tank mixing with Crossing CA Herbicide.

Proper handling instructions: This product may not be mixed or loaded within 50 feet of any wells (including abandoned wells and drainage wells), sink holes, perennial or intermittent streams and rivers, and natural or impounded lakes and reservoirs. This setback does not apply to properly capped or plugged abandoned wells and does not apply to impervious pad or properly diked mixing/loading areas.

Operations that involve mixing, loading, rinsing or washing of this product into or from pesticide handling or application equipment or containers within 50 feet of any well, are prohibited unless conducted on an impervious pad constructed to withstand the weight of the heaviest load that may be positioned on or moved across the pad. Such a pad shall be designed and maintained to contain any product spills or equipment leaks, container or equipment rinse or wash water, and rainwater that may fall on the pad. Surface water shall not be allowed to either flow over or from the pad, which means the pad must be self contained. The pad shall be sloped to facilitate material removal. An unroofed pad shall be of sufficient capacity to contain at a minimum 110% of the capacity of the largest pesticide container or application equipment on the pad. A pad that is covered by a roof of sufficient size to completely exclude precipitation from contact with the pad shall have a minimum containment capacity of 100% of the capacity of the largest pesticide container or application equipment on the pad. Containment capacities as described above shall be maintained at all times. The above specific minimum containment capacities do not apply to vehicles when delivering pesticide shipments to the mixing/loading site. States may have in effect additional requirements regarding wellhead setbacks and operational containment.

Product must be used in a manner which will prevent back siphoning in wells, spills or improper disposal of excess pesticide, spray mixtures or rinsates.

GENERAL APPLICATION INFORMATION (37.0)

Utilize a boomless application system or a boom application system equipped with the appropriate nozzle spray tips and screens and adjusted to provide optimum spray distribution and coverage at appropriate operating pressures. Utilize nozzles and boomless sprayer configurations which produce minimal amounts of fine spray droplets. Do not exceed 25 psi spray pressure unless otherwise required by the manufacturer of drift reducing nozzles or boomless application systems. Apply a minimum of 10 gallons of finished spray per acre.

Water must be used as the carrier for this product when applied alone, or when tank mixed with other herbicides.

Avoid letting this product sit overnight as settling of product and difficulty of resuspending may occur.

Do not allow spray to drift onto adjacent plants as injury to other plants may occur.

Do not apply to ornamental shrubs and trees, turf grasses or crops.

SPRAY TANK PREPARATION (38.0)

It is important that spray equipment is clean and free of existing pesticide deposits before using this product. Follow the spray tank clean out procedures specified on the label of product previously applied before adding Crossing CA Herbicide to the tank.

Mixing Instructions (38.1)

Crossing CA Herbicide may be tank mixed with other herbicides for control of additional weed species. Mixtures with some other herbicides have not been tested. Conduct an appropriate compatibility test prior to tank mixing with other products. Follow all precautions and restrictions on the tank mix partner label.

For best results, fill spray tank with one half of the volume of clean water needed for the area to be treated. Start agitation system. Slowly add Crossing CA Herbicide to the spray tank. Complete filling the spray tank to the desired level. Continuous spray tank agitation is required at all times to maintain a uniform spray solution. Make sure Crossing CA Herbicide is thoroughly mixed before application or before adding another product to the spray tank.

For tank mixtures with other herbicides, a jar test should be conducted to ensure product compatibility before full-scale mixing. Provided the jar test indicates the mixture to be compatible, prepare the tank mixture as follows: Fill the tank one half full with water. With agitator operating, add the recommended amounts of ingredients using the following order: dry granules first, liquid suspensions (flowables) second. Add EC products followed by water soluble products to tank as agitation continues and tank is filled with water. All applicable directions, restrictions and precautions for the tank mixture herbicides must be followed.

Use the Crossing CA Herbicide mixture immediately after mixing. Do not store the sprayer overnight or for any extended period of time with the Sulfentrazone spray mixture remaining in the tank. Premixing Crossing CA Herbicide spray solutions in nurse tanks is not recommended.

If Crossing CA Herbicide is tank-mixed with other herbicides, all additional directions , restrictions and precautions for the tank mixture herbicides must be followed.

SPRAY DRIFT MANAGEMENT (39.0)

Avoiding spray drift at the application site is the responsibility of the applicator. The interaction of many equipment and weather-related factors determine the potential for spray drift. The applicator and the grower are responsible for considering all these factors when making decisions.

The following drift management requirements must be followed to avoid off-target drift movement from aerial applications. These requirements do not apply to forestry applications, public health uses or to applications using dry formulations.

1. The distance of the outer most nozzles on the boom must not exceed ¾ the length of the wingspan or rotor.

2. Nozzles must always point backward and parallel with the air stream and never be pointed downwards more than 45 degrees. Where states have more stringent regulations, they should be observed.

The applicator should be familiar with and take into account the information covered in the Aerial Drift Reduction Advisory Information.

Importance of Droplet Size (39.1)

The most effective way to reduce drift potential is to apply large droplets. The best drift management strategy is to apply the largest droplets that provide sufficient coverage and control. Applying larger droplets reduces drift potential, but will not prevent drift if applications are made improperly, or under unfavorable environmental conditions (see Wind, Temperature and Humidity, and Temperature Inversion section of this label).

Controlling Droplet Size (39.2)

Volume: Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets.

Pressure: Use the lower spray pressures recommended for the nozzle. Higher pressure reduces droplet size and does not improve canopy penetration. When higher flow rates are needed, use higher flow rate nozzles instead of increasing pressure.

Number of nozzles: Use the minimum number of nozzles that provide uniform coverage.

Nozzle Orientation: Orienting nozzles so that the spray is released backwards, parallel to the airstream will produce larger droplets than other orientations. Significant deflection from the horizontal will reduce droplet size and increase drift potential.

Nozzle Type: Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles. Solid stream nozzles oriented straight back produce larger droplets than other nozzle types.

Boom Height: Making applications at the lowest height that produces a uniform spray pattern will reduce exposure of droplets to evaporation and wind.

Boom Length: For some use patterns, reducing the effective boom length to less than ¾ of the wingspan or rotor length may further reduce drift without reducing swath width.

Application Height (by air): Applications should not be made at a height greater than 10 feet above the top of the largest plants unless a greater height is required for aircraft safety. Making applications at the lowest height that is safe reduces exposure of droplets to evaporation and wind.

Swath Adjustment

When applications are made with a crosswind toward sensitive areas, the swath will be displaced downwind. Therefore, on the up and downwind edges of the field, the applicator must compensate for this displacement by adjusting the path of the aircraft upwind. Swath adjustment distance should increase, with increasing drift potential (higher wind, smaller drops, etc.). For ground applications, when applications are made with a crosswind towards sensitive areas, the application should leave a buffer to avoid off-site movement.

Wind

Drift potential is lowest between wind speeds of 2-10 mph. However, many factors, including droplet size and equipment type determine drift potential at any given speed. Application should be avoided below 2 mph due to variable wind direction and high inversion potential

Note: Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they affect drift.

Temperature and Humidity

When making applications in low relative humidity, set up equipment to produce larger droplets to compensate for evaporation. Droplet evaporation is most severe when conditions are both hot and dry.

Temperature Inversions

Applications should not occur during a temperature inversion because drift potential is high. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions due to the light variable winds common during inversions. Temperature inversions are characterized by increasing temperatures with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog; however, if fog is not present, inversions can also be identified by the movement of smoke from a ground source or an aircraft smoke generator. Smoke

that layers and moves laterally in a concentrated clo(nder low wind conditions) indicates an inversion, wh(moke that moves upwards and rapidly dissipates indicates good vertical air mixing.

Sensitive Areas

The pesticide should only be applied when the potential for drift to adjacent sensitive areas (e.g., residential areas, bodies of water, known habitat for threatened or endangered species, non-target crops) is minimal (e.g, when wind is blowing away from the sensitive areas).

Drift Control Additives

Drift control additives may be used with all spray equipment with the exception of controlled droplet applicators. When a drift control additive is used, read and carefully observe cautionary statements and all other information on the label. It is recommended that additives be certified by the Chemical Producers and Distributors Association (CPDA).

Sprayer Equipment Clean-Out (40.0)

After spraying Crossing CA Herbicide and before using sprayer equipment for any other applications, the sprayer must be thoroughly cleaned using the following procedure:

1. Drain sprayer tank, hoses, and spray boom and thoroughly rinse the inside of the sprayer tank with clean water to remove sediment and residues. In addition, thoroughly flush sprayer hoses, boom, and nozzles with clean water.
2. Fill the tank 1/2 full with clean water, and add appropriate detergent or ammonia (follow manufacturer's directions for use). Fill the tank to capacity and operate the sprayer for 15 minutes to flush hoses, boom, and nozzles.
3. Drain the sprayer system. Rinse the tank with clean water and flush through the hoses, boom, and nozzles. Remove and clean spray tips and screens separately.
4. Properly dispose of all cleaning solution and rinsate in accordance with Federal, State and local regulations and guidelines.

Do not drain or flush equipment on or near desirable trees or plants. Do not contaminate any body of water including irrigation water that may be used on other plants.

APPLICATION INSTRUCTIONS (41.0)

Railroad Rights-of-Way (41.1)

Crossing CA Herbicide can be used to control many weeds and maintain bare ground on railroad rights-of-way, including railroad yards, railroad crossings and railroad bridge abutments.

Highway, Roadside, Pipeline and Utility Rights-of-Way. (41.2)

Crossing CA Herbicide can be used to control many weeds and maintain bare ground in highway, roadside, pipeline and utility rights-of-way, Such areas would include, but are not limited to, guard rails, road shoulders, electric utility substations, pipeline pumping stations, around electric transmission towers, around distribution line poles and in other areas where complete vegetation control is desired.

Industrial Areas, Fence Rows and Other Non-crop Sites (41.3)

Crossing CA Herbicide controls weeds and maintains bare ground in industrial areas including production facilities, tank farms, storage areas, parking areas, lumber yards, airports, military installations, along fence rows, and in similar non-crop sites where complete vegetation control is needed.

Method and Rate of Application (41.4)

For residual control of germinating weeds in non-crop land, apply this product as a broadcast treatment at 8 to 12 fluid ounces (0.25 to 0.375 pounds active ingredient) per acre by ground in a minimum of 10 gallons of spray solution per acre. Applications may be made by helicopter on railroad rights-of-way only.

DO NOT apply Crossing CA Herbicide to soils classified as sand with less than 1% Organic Matter.

Use labeled rates of burndown herbicides such as glyphosate, glyphosate - trimesium, diquat, 2,4-D, dicamba,etc. as tank mixtures with Crossing CA Herbicide. Use recommended adjuvants for the herbicide tank mix partner. For all products used in tank mixes, refer to the specific product labels for all restrictions on tank mixing and observe all label precautions, instructions and rotational cropping restrictions.

Timing

For best results, apply Crossing CA Herbicide alone or in combination with other herbicides for residual control of weeds in late summer, fall, or early spring to insure adequate moisture for soil activation.

Weeds Controlled

This product, when applied at 8 to 12 fluid ounces per acre, will control the following weeds in non-cropland areas. Use the higher labeled rates to extend length of control. Use the higher rates on sites with fine soil textures and on sites with more than 2% organic matter.

Weeds Controlled	
Common Name	**Scientific Name**
Beggarweed, Florida	Desmodium tortuosum
Carpetweed	Mollugo verticillata
Chickweed, common	Stellaria media
Copperleaf, Hophornbeam	Acalypha ostryifolia
Crabgrass species	Digitaria spp.
Croton, tropic	Croton glandulosus
Daisy, American	Coreopsis grandiflora
Dayflower, common	Commelina communis
Dayflower, Virginia	Commelina virginica
Dock, curly	Rumex crispus
Fixweed	Descurainia Sophia
Galinsoga, hairy	Galinsoga ciliata
Groundcherry, clammy (seedling)	Physallis heterophylla
Groundcherry, cutleaf	Physalis angulata
Jimsonweed	Datura stramonium
Kochia	Kochia scoparia
ALS/Triazene Resistant Kochia	Kochia scoparia
Lambsquarter, common	Chenopodium album
Lettuce, wild	Lactuca virosa
Mallow, common	Malva neglecta
Milkweed, honeyvine	Ampelamus albidus
Mexicanweed	Caperonia castanifolia

Morningglory species	Ipomoea spp.
Mustard species	Brassica spp.
Nightshade species	Solanum spp.
Nutsedge species	Cyperus spp
Palmer amaranth	Amaranthus palmeri
Pigweed, smooth	Amaranthus hybridus
Pigweed, redroot	Amaranthus retroflexus
Texasweed	Caperonia palustrus
Thistle, Russian	Salsola iberica
Waterhemp, tall	Amaranthus tuberculatus
Waterhemp, common	Amaranthus rudis

Turf Use Instructions (42.0)

General Information (42.1)

Crossing CA Herbicide is a selective preemergence and post emergence herbicide which controls annual grasses and broadleaf weeds in established turf areas including, but not limited to, residential and institutional lawns, athletic fields, commercial sod farms, golf course fairways and golf course roughs. To broaden the spectrum for preemergence control or suppression of annual grasses and/or broadleaf weeds, Crossing CA Herbicide should be tank mixed with an EPA registered annual grass herbicide. Observe all instructions, mixing directions, application precautions and other label information of each product when tank mixing with Crossing CA Herbicide.

Crossing CA Herbicide is formulated as a flowable (suspension concentrate) containing 4 lbs of active ingredient per gallon. The mode of action of Crossing CA Herbicide involves uptake by both weed roots and shoots. Preemergence application of Crossing CA Herbicide requires soil moisture for activation. The amount of soil moisture required for activation following application depends on existing soil moisture, organic matter content and soil texture. The most effective preemergence weed control will be obtained when Crossing CA Herbicide is activated by at least 0.5 inches of rainfall or irrigation within 7 days after application and prior to weed seed germination.

Mixing and Application Instructions (42.2)

General handling instructions

This product may not be mixed or loaded within 50 feet of any wells (including abandoned wells and drainage wells), sink holes, perennial or intermittent streams and rivers, and natural or impounded lakes and reservoirs. This setback does not apply to properly capped or plugged abandoned wells and does not apply to impervious pad or properly diked mixing/loading areas.

Operations that involve mixing, loading, rinsing or washing of this product into or from pesticide handling or application equipment or containers within 50 feet of any well, are prohibited unless conducted on an impervious pad constructed to withstand the weight of the heaviest load that may be positioned on or moved across the pad. Such a pad shall be designed and maintained to contain any product spills or equipment leaks, container or equipment rinse or wash water, and rainwater that may fall on the pad. Surface water shall not be allowed to either flow over or from the pad, which means the pad must be self contained. The pad shall be sloped to facilitate material removal. An unroofed pad shall be of sufficient capacity to contain at a minimum 110% of the capacity of the largest pesticide container or application equipment on the pad. A pad that is covered by a roof of sufficient size to completely exclude precipitation from contact with the pad shall have a minimum containment capacity of 100% of the capacity of the largest pesticide container or application equipment on the pad. Containment capacities as described above shall be maintained at all times. The above specific minimum containment capacities do not apply to vehicles when delivering pesticide shipments to the mixing/loading site. States may have in effect additional requirements regarding wellhead setbacks and operational containment.

Product must be used in a manner which will prevent back siphoning in wells, spills or improper disposal of excess pesticide, spray mixtures or rinsates.

SPRAY TANK PREPARATION

It is important that spray equipment is clean and free of existing pesticide deposits before using this product. Follow the spray tank clean out procedures specified on the label of product previously applied before adding Crossing CA Herbicide to the tank.

Crossing CA Herbicide is a suspension concentrate intended for dilution with water. In certain applications, liquid fertilizer may replace water as diluent.

MIXING WITH WATER

For best results, fill spray tank with one fourth of the volume of clean water needed for the area to be treated. Start the agitation system and add Crossing CA Herbicide to the tank. Make sure Crossing CA Herbicide is thoroughly mixed before application or before adding another product to the spray tank.

USE OF SURFACTANTS

Temporary discoloration of some turf types may result from use of surfactants or adjuvants with Crossing CA Herbicide. High temperatures and high relative humidity may increase the risk of temporary discoloration. Use of surfactants is not recommended.

MIXING WITH LIQUID FERTILIZERS

Utilize local recommendations for sources and rates of fertilizer and refer to mixing directions on the fertilizer labels (e.g. UAN or urea solutions). Determine the compatibility of this product with the desired fluid fertilizer by mixing small proportional quantities in advance (See the "TANK MIXTURES COMPATIBILITY" section below)

TANK MIXTURES COMPATIBILITY

Crossing CA Herbicide is believed to be compatible with most herbicides, fungicides, insecticides, growth regulators, liquid fertilizers and spray adjuvants commonly used in turf and ornamental plant management. However, when preparing a new tank mix conduct an appropriate compatibility test by mixing proportional amounts of all spray ingredients in a test vessel (jar) prior to tank mixing with other products. Shake the mixture vigorously and allow it to stand for five to ten minutes. Rapid precipitation of the ingredients and failure to re-suspend when shaken indicates that the mixture is incompatible and should not be applied. Provided the jar test indicates the mixture to be compatible, prepare the tank mixture as follows: Fill the tank one fourth full with water. With the agitator operating, add the recommended amounts of ingredients using the following order: dry granules first, and liquid suspensions (flowables) second. As the agitation continues and the tank is filled with water add EC products third followed by the addition of water soluble products.

Read and observe mixing instructions of all tank mix partners. Also read each product's label for Directions for Use, Precautionary Statements and Restrictions and Limitations. The most restrictive labeling applies in all tank mixtures. No label dosage rate should be exceeded. Tank mixture recommendations are for use only in states where the companion products and application site are registered. In addition, certain states or geographical regions may have established dosage rate limitations. Consult your state Pesticide Control Agency for additional information regarding the maximum use rates.

Use Crossing CA Herbicide spray mixture immediately after mixing. Do not store the mixture.

Ground Equipment

Power sprayers: Uniform and accurate spray coverage requires proper calibration and operation of spray equipment. The use of marker dyes or foams can improve application accuracy. Boom sprayers equipped with appropriate flat fan nozzles, tips and screens are ideal for broadcast applications.

Power sprayers fitted with spray wand/gun may also be used for broadcast application after careful calibration by the applicator. Power sprayers fitted with spray wand/gun are suitable for spot treatments.

Hand operated sprayers: Backpack and compression sprayers are appropriate for small turfgrass areas and spot treatments. Wands fitted with a flat fan nozzle tip should be held stationary at the proper height during application. A side to side or swinging arm motion can result in uneven coverage.

Apply this product in a sufficient volume of carrier solution to provide a uniform spray distribution. Spray volumes of 20 – 175 gallons per acre (0.5 to 4.0 gal/1,000 ft^2) with spray pressures adjusted to 20 – 40 psi are appropriate. Apply the higher spray volumes for dense weed populations.

Sprayer Equipment Clean-Out
After spraying Crossing CA Herbicide and before using sprayer equipment for any other applications, the sprayer must be thoroughly cleaned using the following procedure:

1. Drain sprayer tank, hoses, and spray boom and thoroughly rinse the inside of the sprayer tank with clean water to remove sediment and residues. In addition, thoroughly flush sprayer hoses, boom, and nozzles with clean water.
2. Fill the tank 1/2 full with clean water, and add appropriate detergent or ammonia (follow manufacturer's directions for use). Fill the tank to capacity and operate the sprayer for 15 minutes to flush hoses, boom, and nozzles.
3. Drain the sprayer system. Rinse the tank with clean water and flush through the hoses, boom, and nozzles. Remove and clean spray tips and screens separately.
4. Properly dispose of all cleaning solution and rinsate in accordance with Federal, State and local regulations and guidelines.

Do not drain or flush equipment on or near desirable trees or plants. Do not contaminate any body of water including irrigation water that may be used on other plants.

Weed Control in Turfgrasses (42.3)

Use Precautions for Turf Use

Turfgrass Safety

This product may be used on seeded, sodded or sprigged turgrasses that are well established. First application of this product can be made following the second mowing providing the turfgrass has developed into a uniform stand with a good root system. Turfgrass injury could result from application of this product on turfgrass that is not well established or has been weakened by stresses such as unfavorable weather conditions, disease, chemical or mechanical influences.

When applied as directed under the conditions described, the following established turfgrasses are tolerant to Crossing CA Herbicide at the recommended use rates in a range from 0.125 to 0.375 lb a.i./acre (4 to 12 fl. oz/acre or 0.092 to 0.275 fl. oz./1,000 sq. ft).

Table 27. Tolerant grasses.

Grass Type*	Maximum Use Rate Single Application		
Cool Season Grasses	lb ai/A	Fluid ounces per 1000 ft^2	Fluid ounces per acre
Bentgrass, creeping *(Agrostis sp.)*	0.125	0.092	4
Bluegrass, Kentucky *(Poa pratensis)* Bluegrass, Rough[2] *(Poa trivialis)* Fescue, fine[1] *(Festuca rubra)* Fescue, tall[1] *(Festuca arundinacea)* Ryegrass, perennial *(Lolium perenne)*	0.125 - .25	0.092 - 0.18	4 - 8
Warm Season Grasses			
Bahiagrass[2] *(Paspalum notatum)* Bermudagrass *(Cynodon dactylon)* & hybrids Buffalograss *(Buchloe dactyloides)* Carpetgrass *(Axonopus affinis)* Centipedegrass *(Eremochloa ophuiroides)* Kikuyugrass *(Pennisetum clandestinum)* Seashore Paspalum (Paspalum vaginatum) St.Augustinegrass *(Stenotaphrum secundatum)*[2] Zoysiagrass *(Zoysia japonica)*[2]	0.25 - 0.375	0.18 – 0.275	8 - 12

1. Use of this product on certain cultivars of Chewings Fescue Fine Fescue or Tall Fescue cultivars may result in undesirable injury.
2. Crossing CA Herbicide application may cause temporary discoloration to exposed leaf surfaces on St. Augustinegrass and certain cultivars of zoysiagrass bahiagrass,.or rough bluegrass. Treated turfgrass will recover with new growth. Discolored leaf tissue will be removed with mowing. To reduce potential for discoloration, do not apply Crossing CA Herbicide on turfgrass that is weakened by weather, mechanical, chemical, disease or other related stress. Maintain proper cultural practices such as adequate moisture and fertility levels to promote healthy turf growth.

* Crossing CA Herbicide has demonstrated tolerance on both cool and warm season turfgrasses. However, not all varieties have been evaluated. Turfgrass managers desiring to treat newly released varieties should first apply Crossing CA Herbicide to a small area prior to treatment of larger areas.

Application to reseeded, overseeded or sprigged areas:
Reseeding, overseeding or sprigging of treated areas within one (1) month after application of this product could inhibit the establishment of desirable turfgrasses. Overseeding of bermudagrass with perennial ryegrass at two (2) to four (4) weeks after an application can be done if slight injury to perennial ryegrass can be tolerated.

Best results are obtained for reseeding or overseeding when mechanical or power seeding equipment (slit seeders) are used to give good seed to soil contact and proper soil cultivation, irrigation and fertilization practices are followed.

Sod Production:
This product may be applied to established sod. Allow sod to establish a good root system, a uniform stand and to fill in the exposed edges. It is recommended that sod be established for at least three (3) months before an application of Crossing CA Herbicide. Do not apply this product within three (3) months of harvest.

Other Use Precautions:
Do not apply to golf course putting greens or tees.

Do not use on turfgrasses other than those listed on this label.

Do not apply with surfactants unless previous experience has demonstrated combinations with surfactant to be physically compatible and non-injurious to the grass type in question.

Do not graze or feed livestock forage cut from areas treated with Crossing CA Herbicide.

Do not apply directly to landscape ornamentals or ornamental beds.

Temporary turfgrass discoloration has been observed when Primo has been either tank-mixed or applied within 7 days of a Crossing CA Herbicide application. It is recommended that Primo applications be made 7 days prior to, or after Crossing CA Herbicide application to reduce risk of turfgrass discoloration.

PREEMERGENCE CONTROL OF ANNUAL GRASSES AND BROADLEAF WEEDS

Control of Summer Annual Weeds:
Apply Crossing CA Herbicide at the application rate for the turf species being managed (4 to 12 fluid ounces/acre or 0.092 to 0.275 fl. oz./1,000 sq. ft.) prior to weed seed germination in early spring. Applications in early spring will control or suppress the following summer annuals:

Black medic	*(Medicago lupulina)*
Common purslane	*(Portulaca oleracea)*
Pigweed, Redroot	*(Amaranthus retroflexus)*
Pigweed, Smooth	*(Amaranthus hybridus)*
Prostrate knotweed	*(Polygonum aviculare)*
Spurge Prostrate spurge Spotted spurge	*(Euphorbia spp.)* *(Euphorbia supina)* *(Euphorbia maculata)*
Barnyardgrass	*(Echninochloa crusgalli)*
Crabgrass, large	*(Digitraria sanguinalis)*
Crabgrass, smooth	*(Digitaria ischaemum)*
Foxtail, green	*(Setaria viridis)*
Foxtail, yellow	*(Setaria glauca)*
Goosegrass	*(Eleusine indica)*

Control of Winter Annual Weeds:
Apply Crossing CA Herbicide at the application rate for the turf species being managed (4 to 12 fluid ounces/acre or 0.092 to 0.275 fl. oz./1,000 sq. ft.) in late summer or early fall to control or suppress the following winter annual weeds:

Buttercups	*(Ranunculus spp.)*
Carolina geranium	*(Geranium carolinianum)*
Common chickweed	*(Stellaria media)*
Common groundsel	*(Senecio vulgaris)*
Corn Speedwell	*(Veronica arvensis)*
Hairy bittercress	*(Cardamine hirsuta)*
Henbit	*(Lamium amplexicaule)*
Johnnyjumpup violet	*(Viola rafeinesquii)*
Knawel	*(Scleranthus annuus)*
Large hop clover	*(Trifolium campestre)*
Mouseear chickweed	*(Cerastium vulgatum)*
Parsley-piert	*(Alchemilla microcarpa)*
Spurweed	*(Soliva pterosperma)*
Annual bluegrass	*(Poa annua)*
Annual ryegrass	*(Lolium multiflorum)*

To broaden the spectrum for preemergence control or suppression of annual grasses and/or broadleaf weeds, Crossing CA Herbicide can be tank mixed with an EPA registered annual grass herbicide. Applications in combination with prodiamine, pendimethalin, dithiopyr or oxadiazon will provide broad spectrum control of the weeds listed in Table 28. Read the label recommendations of the tank mix partner to determine grass species safety, use rate and application procedures. Follow all label restrictions, use directions and precautionary statements before using these tank mixtures. Read and follow the "TANK MIXTURES COMPATIBILITY" section of this label for instructions on how to determine the compatibility of tank mixtures.

POSTEMERGENCE CONTROL OF ANNUAL, BIENNIAL & PERENNIAL BROADLEAF WEEDS
Crossing CA Herbicide will control or suppress the weeds listed in Table 23 when applied alone shortly after weeds have emerged. Apply Crossing CA Herbicide at rates from 4 to 12 fl. oz/acre (0.092 to 0.275 fl. oz./1,000 sq. ft.). Do not exceed the application rate specified for the turfgrass species in Table 27. To broaden the weed spectrum and increase effectiveness for certain weeds listed in Table 4, Crossing CA Herbicide may be tank mixed with other EPA registered postemergence herbicides. Control of emerged annual grass weeds may be improved by combining Crossing CA Herbicide with Acclaim®, Dimension®, MSMA or Drive®. Read the label recommendations of the tank mix partner to determine turfgrass species safety, use rate and application procedures. Follow all label restrictions, use directions and precautionary statements before using these tank mixtures. Read and follow the "TANK MIXTURES COMPATIBILITY" section of this label for instructions on how to determine the compatibility of tank mixtures.

When used as directed Crossing CA Herbicide will control or suppress the following weeds.

Table 28. Weeds Controlled or Suppressed by Crossing CA Herbicide

BROADLEAVES	SCIENTIFIC NAMES
Bedstraw, catchweed	*(Galium aparine)*
Beggarweed, Florida	*(Desmodium tortuosum)*
Bittercress	*(Cardamine spp.)*
Black medic	*(Medicago lupulina)*
Buttercups	*(Ranunculus spp.)*
Carolina geranium	*(Geranium carolinianum)*
Carpetweed	*(Mollugo verticillata)*
Chickweed, common	*(Stellaria media)*
Chickweed, mouseear	*(Cerastium vulgatum)*
Cinquefoil	*(Potentilla spp.)*
Clover	*(Trifolium spp.)*
Copperleaf	*(Ascalypha spp.)*
Cudweed	*(Gnaphalium spp.)*
Dandelion	*(Taraxacum officinale)*
Dock, Curly	*(Rumex crispus)*

Dollarweed	*(Hydrocotyl umbellata)*
Eclipta	*(Eclipta prostra[illegible])*
Evening primrose	*(Oenothera bien...)*
Fiddleneck	*(Amsinckia spp.)*
Filaree	*(Erodium spp.)*
Galinsoga	*(Galinsoga ciliate)*
Goldenrod	*(Solidago spp.)*
Ground ivy	*(Glechoma hederacea)*
Groundsel, common	*(Senecio vulgaris)*
Henbit	*(Lamium amplexicaule)*
Knawel	*(Scleranthus annuus)*
Knotweed, prostrate	*(Polygonum aviculare)*
Kochia	*(Kochia scoparia)*
Lambsquarters, common	*(Chenopodium album)*
Lawn burweed (spurweed)	*(Soliva pterosperma)*
Lespedeza, common	*(Lespedeza striata)*
Mallow, common	*(Malva neglecta)*
Parsley piert	*(Alchemilla arvensis)*
Pigweed, Redroot	*(Amaranthus retroflexus)*
Pigweed, Smooth	*(Amaranthus hybridus)*
Pigweed, Tumble	*(Amaranthus albus)*
Pineapple weed	*(Matricaria matricarioides)*
Plantain, buckhorn	*(Plantago lanceolata)*
Puncture weed	*(Tribulus terrestris)*
Purslane, common	*(Portulaca oleracea)*
Pusley, Florida	*(Richardia scabra)*
Redweed	*(Melochia corchorifolia)*
Rocket, London	*(Sisymbrium irio)*
Shepherd's purse	*(Capsella bursa-pastoris)*
Smartweed, Pennsylvania	*(Polygonum pensylvanicum)*
Sorrel, Red	*(Rumex acetosella)*
Speedwell	*(Veronica spp.)*
Spurge, (annuals)	*(Euphorbia spp.)*
Spurge, prostrate	*(Euphorbia humistrata)*
Spurge, spotted	*(Euphorbia maculata)*
Star of Bethlehem	*(Ornithogalum umbellatum)*
Velvetleaf	*(Abutilon theophrasti)*
Violet, wild	*(Viola pratincola)*
Violet, Johnny-jump-up	*(Viola rafeinesquii)*
Wild garlic	*(Allium vineale)*
Wild onion	*(Allium canadense)*
Woodsorrel, creeping	*(Oxalis corniculata)*
Woodsorrel, yellow	*(Oxalis stricta)*

POSTEMERGENCE CONTROL OF ANNUAL AND PERENNIAL SEDGES

Crossing CA Herbicide will control or suppress sedges (Table 29) when applied at a rate of 4 to 12 fl oz/acre (0.092 to 0.275 fl. oz./1,000 sq. ft.). Apply the highest rate consistent with the rate needed for turfgrass safety in Table 27. Rates lower than 12 fl oz/acre (0.275 fl. oz/1,000 sq. ft.) will generally control sedges for at least 60 days. A rate of 12 fl oz/acre (0.275 fl oz/1,000 sq. ft.) will provide approximately 75% control for at least 60 days. Yellow nutsedge (*Cyperus esculentus*) is the most susceptible sedge species.

Good spray coverage is needed for optimum control of sedges. Temporary discoloration of some turfgrass species may result from use of surfactant. Use of surfactants is not recommended.

Table 29. Sedge species controlled or suppressed by Crossing CA Herbicide

Common Name	SCIENTIFIC NAME
Kyllinga, green	*(Kyllinga brevifolia)*
Kyllinga, false green	*(Kyllinga gracillima)*
Nutsedge, purple'	*(Cyperus rotundus)*
Nutsedge, yellow	*(Cyperus esculentus)*
Sedge, globe	*(Cyperus globulosus)*
Sedge, cylindric	*(Cyperus retrorsus)*
Sedge, Surinam	*(Cyperus surinamensis)*
Sedge, Texas	*(Cyperus polystachyos)*

1. PURPLE NUTSEDGE; For optimum control of purple nutsedge, split applications are recommended (Table 30). Apply 4-8 ounces per acre as an initial application followed by a second application when evidence of actively growing purple nutsedge is visible. Do not exceed the maximum rate per acre based on turfgrass variety listed in Table 27; Tolerant grases.

Table 30

Split Application Rate Options		
Grass Type	Option 1 (fluid ounces/acre)	Option 2 (fluid ounces/acre)
Cool Season Grasses excluding Bentgrass (see Table 1)	4 oz followed by 4 oz 35 DAIT	6 oz followed by 2 oz 35 DAIT
Warm Season Grasses (see Table 1)	8 oz followed by 4 oz 35 DAIT	6 oz followed by 6 oz 35 DAIT

DAIT = Days After Initial Treatment

POSTEMERGENCE CONTROL OF GRASSY WEEDS

Crossing CA Herbicide will control or suppress specific annual grasses (Table 26) when applied at a rate of 4 to 12 fl oz/acre (0.092 to 0.275 fl. oz./1,000 sq. ft.). Apply the highest rate consistent with the rate needed for turfgrass tolerance in Table 27. Rates lower than 12 fl oz/acre (0.275 fl. oz/1,000 sq. ft.) will generally control grasses for at least 60 days. Crossing CA Herbicide works best if applied when the annual grasses are small (pre tiller stage) and actively growing.

Good spray coverage is needed for optimum control of grasses. Temporary discoloration of some turfgrass species may result from use of surfactant. Use of surfactants is not recommended.

Table 30

Common Name	Scientific Name
Goosegrass	*Eleusine indica*

LABEL TRACKING INFORMATION (43.0)

Label Code: Crossing CA Herbicide 09-21-09 ABN

FMC Corporation
Agricultural Products Group
1735 Market Street
Philadelphia Pennsylvania 19103
215-299-6000

NEXT

LABEL

279-3370 10-30-2009 1/14

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF
PREVENTION, PESTICIDES AND
TOXIC SUBSTANCES

Mr. Michael C. Zucker
Senior Registration & Label Specialist
FMC Corporation – Agricultural Product Group
1735 Market Street
Philadelphia, PA 19103

OCT 30 2009

RE: Notification of an Alternate Brand Name: Dismiss CA Herbicide
EPA Registration Number: 279-3370
Date of Submission: September 21, 2009

Dear Mr. Zucker:

The Agency is in receipt of your Application for Pesticide Notification under Pesticide Registration Notice (PRN) 98-10 dated September 21, 2009, for the above mentioned product. The Registration Division (RD) has conducted a review of this request for its applicability under PRN 98-10 and finds that the actions requested fall within the scope of PRN 98-10. The label submitted with the application has been stamped "Notification" and will be placed in our records.

If you have any questions, please me directly at 703-305-6249 or Joyce Edwards of my staff at 703-308-5479.

Sincerely,

Linda Arrington
Notifications & Minor Formulations Team Leader
Registration Division (7505P)
Office of Pesticide Programs

Please read instructions on reverse before completing form. Form Approved. OMB No. 2070-0060. Approval expires 2-28-95

EPA

United States
Environmental Protection Agency
Washington, DC 20460

- [ ] Registration
- [ ] Amendment
- [x] Other

OPP Identifier Number

Application for Pesticide - Section I

1. Company/Product Number	2. EPA Product Manager	3. Proposed Classification
FMC Corporation/ 279 -3370	Ms. Joanne I. Miller	[x] None [ ] Restricted
4. Company/Product (Name)	**PM#**	
FMC Corporation/Dismiss CA Herbicide	23	

5. Name and Address of Applicant *(Include ZIP Code)*

FMC Corporation - Agricultural Products Group
1735 Market Street
Philadelphia, PA 19103

[ ] *Check if this is a new address*

6. Expedited Reveiw. In accordance with FIFRA Section 3(c)(3)(b)(i), my product is similar or identical in composition and labeling to:

EPA Reg. No. 279 - 3370

Product Name F6285 4F CAL Herbicide

Section - II

- [ ] Amendment - Explain below.
- [ ] Resubmission in response to Agency letter dated _____
- [ ] Notification - Explain below.
- [ ] Final printed labels in repsonse to Agency letter dated _____
- [ ] "Me Too" Application.
- [ ] Other - Explain below.

NOTIFICATION
OCT 3 0 2009

Explanation: Use additional page(s) if necessary. (For section I and Section II.)

Notification of an alternate brand name per PR Notice 98-10.
This notification is consistent with the provisions of PR Notice 98-10 and EPA regulations at 40 CFR 152.46, and no other changes have been made to the labeling or the confidential statement of formula of this product. I understand that it is a violation of U.S.C. Sec.1001 to willfully make any false statement to EPA. I further understand that if this notification is not consistent with the terms of PR Notice 98-10 and 40 CFR 152.46, this product may be in violation of FIFRA and I may be subject to enforcement action and penalties under sections 12 and 14 of FIFRA.

Section - III

1. Material This Product Will Be Packaged In:

Child-Resistant Packaging	Unit Packaging	Water Soluble Packaging	2. Type of Container
[ ] Yes [x] No	[ ] Yes [x] No	[ ] Yes [x] No	[ ] Metal [x] Plastic [ ] Glass [ ] Paper [ ] Other (Specify) _____
* ***Certification must be submitted***	If "Yes" Unit Packaging wgt. / No. per container	If "Yes" Package wgt / No. per container	

3. Location of Net Contents Information	4. Size(s) Retail Container	5. Location of Label Directions
[ ] Label [x] Container		[x] on label/container

6. Manner in Which Label is Affixed to Product: [x] Lithograph, Paper glued, Stenciled [ ] Other _____

Section - IV

1. Contact Point *(Complete items directly below for identification of individual to be contacted, if necessary, to process this application.)*

Name	Title	Telephone No. (Include Area Code)
Michael C. Zucker	Senior Registration & Label Specialist	(215)299-5876

Certification

I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowlingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.

2. Signature	3. Title	6. Date Application Received
Michael C. Zucker	Senior Registration & Label Specialist	(Stamped)
4. Typed Name	**5. Date**	
Michael C. Zucker	September 21, 2009	

FMC Agricultural Products

FMC Corporation
1735 Market Street
Philadelphia, PA 19103

215.299.6000 Phone
215.299.6468 Fax

www.fmc.com

September 21, 2009

United States Environmental Protection Agency
Document Processing Desk (Notifications)
Office of Pesticide Programs (7504P)
One Potomac Yard, Room S-4900
2777 South Crystal Drive
Arlington, VA 22202

Dear Ms. Miller:

Subject: Dismiss CA Herbicide
EPA Reg. No. 279-3370

Notification of an Alternate Brand Name per PR Notice 98-10.

FMC is notifying the Agency that Dismiss CA Herbicide is an alternate brand name for F6285 4F CAL Herbicide.

Enclosed please find the following documents:

- Cover Letter
- Form 8570-1
- One copy of the Dismiss CA Herbicide label.

If you have any questions, or if I can be of any further assistance, please feel free to contact me at (215) 299-5876 or by e-mail at mike_zucker@fmc.com.

Sincerely,

Michael C. Zucker

Michael C. Zucker
Senior Registration & Label Specialist
FMC Corporation
Agricultural Products Group

FMC

Dismiss CA
Herbicide

For Use Only by Individuals/Firms Certified And/or Licensed as Pesticide Applicators

EPA Reg. No. 279-3370 EPA Est. 279-

Active Ingredient: By Wt. (1)

Sulfentrazone	39.6%
Inert Ingredients:	60.4%
	100.0%

Contains 4 pounds of active ingredient per gallon.
U.S. Patent No. 4,818,275

KEEP OUT OF REACH OF CHILDREN

NOTIFICATION
OCT 3 0 2009

CAUTION

FIRST AID (2.0)

If Inhaled
Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice.

If on Skin or Clothing
Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

If in Eyes
Hold eye open and rinse slowly and gently with water for 15- 20 minutes. Remove contact lenses, if present, after the first 5 minutes. Then continue rinsing eye. Call a poison control center or doctor for treatment advice.

If Swallowed
Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person.

HOTLINE NUMBER (3)

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-331-3148 for emergency medical treatment information.

Note to Physician: Sulfentrazone is expected to have low oral and dermal toxicity, and moderate inhalation toxicity. It is expected to be slightly irritating to the skin and minimally irritating to the eyes. Treatment is otherwise controlled removal of exposure followed by symptomatic and supportive care.

See other sections for precautionary information.

ACTIVE INGREDIENT MADE IN CHINA AND FORMULATED AND PACKAGED IN USA.

From FMC

Group 14 Herbicide

ATTENTION

-Although this label may appear similar to the label on a product you may have used, there may be important label differences. Users must read, understand and strictly follow all label directions, precautions and restrictions.

-It is the user's responsibility to be sure the product is approved for sale or use on the intended crop and for use in the specific geographic area.

-It is the user's responsibility to be aware of and to follow all State or local precautions or restrictions not appearing on this product label.

-Prior to purchase or use of this product, read the Terms of Sale or Use and Limitation of Warranty and Liability on page 2 of this label. If the terms and conditions are unacceptable, return the product immediately in the original and unopened container.

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PRECAUTIONARY STATEMENTS (4.0)

Hazards to Humans and Domestic Animals (4.1)

Caution

Causes moderate eye irritation. Harmful if inhaled, swallowed, or absorbed through skin. Avoid breathing vapor or spray mist. Avoid contact with skin, eyes or clothing.

Personal Protective Equipment (PPE) (4.2)

Applicators and other handlers must wear: long-sleeved shirt and long pants, chemical-resistant gloves made of any waterproof material such as polyethylene or polyvinyl chloride, and shoes plus socks.

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product. Do not reuse them. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

User Safety Recommendations:

Users should:

• Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

Environmental Hazards (4.3)

This pesticide is toxic to marine/estuarine invertebrates. Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Drift and runoff may be hazardous to terrestrial and aquatic plants in neighboring areas. Do not contaminate water when disposing of equipment washwaters or rinsate.

Groundwater advisories: This chemical is known to leach through soil into groundwater under certain conditions as a result of label use. Use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination.

Do not use on coarse soils classified as sand, which have less than 1% organic matter.

Surface water advisory: Sulfentrazone can contaminate surface water through spray drift. Under some conditions, sulfentrazone may also have a high potential for runoff into surface water (primarily via dissolution in runoff water), for several to many months post-application. These include poorly draining or wet soils with readily visible slopes toward adjacent surface waters, frequently flooded areas, areas overlying extremely shallow groundwater, areas with in-field canals or ditches that drain to surface water, areas not separated from adjacent surface waters with vegetated filter strips, and areas over-lying tile drainage systems that drain to surface waters.

Physical/Chemical Hazards (4.4)

Do not use or store near heat or open flame.

DIRECTIONS FOR USE (5.0)

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

For Use Only in the State of California.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application.

Do not apply more than the allowed amount of Dismiss CA Herbicide per acre per twelve-month period as stated in Table 2. The twelve-month period is considered to begin upon the initial Dismiss CA Herbicide application.

For any requirements specific to your State or Tribe, consult the Agency responsible for pesticide regulation.

AGRICULTURAL USE REQUIREMENTS (5.1)

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry interval. These requirements only apply to uses of this product that are covered by the Worker Protection Standard.

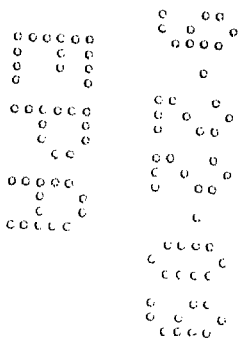
Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 12 hours.

Personal Protective Equipment (PPE) required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water is: Coveralls over long-sleeved shirt and long pants, chemical-resistant gloves made of any waterproof material, and shoes plus socks.

Non-Agricultural Use Requirements

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries, or greenhouses.

Re-entry Statement: Do not allow people (other than applicator) or pets on treatment area during application. Do not enter treatment area until spray has dried.



STORAGE AND DISPOSAL (5.2)

Do not contaminate water, food or feed by storage or disposal. Do not use or store around the home.

Pesticide Storage
Store product in original container only, away from other pesticides, fertilizer, food or feed.
Store in a cool, dry place and avoid excess heat.

In Case of Spill
In case of spill, avoid contact, isolate area and keep out animals and unprotected persons. Confine spills. Call FMC: (800) 331-3148.

To Confine Spill
To confine spill: If liquid, dike surrounding area or absorb with sand, cat litter or commercial clay. If dry material, cover to prevent dispersal. Place damaged package in a holding container. Identify contents.

Pesticide Disposal
Waste resulting from the use of this product may be disposed of at an approved waste disposal facility.

Container Disposal
Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: (For containers greater than 5 gallons) Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. (For containers 5 gallons or less) Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow
begins to drip. Repeat this procedure two more times. Triple rinse (or equivalent). Then offer for recycling if available, or reconditioning, or puncture and dispose of in a sanitary landfill, or incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of
smoke.

Returnable/Refillable Containers - Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. ¶ To clean the container before final disposal, empty the remaining contents into application equipment or mix tank. Fill the container about 10% full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times.

CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY (6.0)

Notice: Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before buying or using this product. If the terms are not acceptable, return the product at once, unopened, and the purchase price will be refunded.

The Directions for Use of this product must be followed carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Crop injury, ineffectiveness, or other unintended consequences may result because of such factors as manner of use or application, weather or crop conditions beyond the control or FMC or Seller. All such risks shall be assumed by Buyer and User, and, to the extent consistent with applicable law, Buyer and User agree to hold FMC and Seller harmless for any claims relating to such factors.

Seller warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated on the Directions for Use when used in accordance with the directions under normal conditions of use. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, FMC MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE, NOR ANY OTHER EXPRESS OR IMPLIED WARRANTIES WITH RESPECT TO THE SELECTION, PURCHASE, OR USE OF THIS PRODUCT. Any warranties, express or implied, having been made are inapplicable if this product has been used contrary to label instructions, or under abnormal conditions, or under conditions not reasonably foreseeable to (or beyond the control of) seller or FMC, and, to the extent consistent with applicable law, buyer assumes the risk of any such use.

To the extent consistent with applicable law, FMC or seller shall not be liable for any incidental, consequential or special damages resulting from the use or handling of this product. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF FMC AND SELLER FOR ANY AND ALL CLAIMS. LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT OR, AT THE ELECTION OF FMC OR SELLER, THE REPLACEMENT OF THE PRODUCT.

This Conditions of Sale and Limitation of Warranty and Liability may not be amended by any oral or written agreement.

RESISTANCE MANAGEMENT (7.0)

Some weeds are known to develop resistance to herbicides that have been used repeatedly. While the development of herbicide resistance is well understood, it is not easily predicted. Therefore herbicides should be used in conjunction with the resistance management strategies in the area. Consult the local or State agricultural advisors for details. If herbicide resistance should develop in the area, this product used alone may not continue to provide sufficient levels of weed control. If the reduced levels of control can not be attributed to improper application techniques, improper use rates, improper application timing, unfavorable weather conditions or abnormally high weed pressure, a resistant strain of weeds may have developed.

To reduce the potential for weed resistance use this product in a rotation program with other classes of chemistry and modes of action. Always apply this product at the recommended rates and in accordance with the use directions. Do not use less than recommended label rates alone or in tank mixtures. Do not use reduced rates of the tank mix partner. For optimum performance, scout fields carefully and begin applications when weeds are smaller rather than larger. If resistance is suspected, contact the local or State agricultural advisors.

GENERAL INFORMATION (8.0)

Dismiss CA Herbicide is a selective soil-applied herbicide for the control of susceptible broadleaf, grass and sedge weeds. Dismiss CA Herbicide is formulated as a 4 pounds per gallon flowable containing the active ingredient, sulfentrazone. **If adequate moisture (1/2" to 1") from rainfall or irrigation is not received within 7 to 10 days after the Dismiss CA Herbicide treatment, a shallow incorporation may be needed to obtain desired weed control.** When activating moisture is received after dry conditions, Dismiss CA Herbicide will provide a reduced level of control of susceptible germinating weeds. Soil applications of Dismiss CA Herbicide must be made before crop seed germination to prevent injury to the emerging crop seedlings. When applications after planting are delayed, injury may occur if seeds are germinating or if they are located near the soil surface

Observe all instructions, crop restrictions, mixing directions, application precautions, replanting directions, rotational crop guidelines and other label information of each product when tank mixing with Dismiss CA Herbicide.

Proper handling instructions: Dismiss CA Herbicide may not be mixed or loaded within 50 feet of any wells (including abandoned wells and drainage wells), sinkholes, perennial or intermittent streams and rivers, and natural or impounded lakes and reservoirs. This setback does not apply to properly capped or plugged abandoned wells and does not apply to impervious pads or properly diked mixing/loading areas.

Operations that involve mixing, loading, rinsing, or washing of this product into or from pesticide handling or application equipment or containers within 50 feet of any well are prohibited unless conducted on an impervious pad constructed to withstand the weight of the heaviest load that may be positioned on or moved across the pad. Such a pad shall be designed and maintained to contain any product spills or equipment leaks, container or equipment rinse or washwater, and rainwater that may fall on the pad. Surface water shall not be allowed to either flow over or from the pad, which means the pad must be self-contained. The pad shall be sloped to facilitate material removal. An unroofed pad shall be of sufficient capacity to contain at a minimum 110% of the capacity of the largest pesticide container or application equipment on the pad. A pad that is covered by a roof of sufficient size to completely exclude precipitation from contact with the pad shall have a minimum containment capacity of 100% of the capacity of the largest pesticide container or application equipment on the pad. Containment capacities as described above shall be maintained at all times. The above specific minimum containment capacities do not apply to vehicles when delivering pesticide shipments to the mixing/loading site. States may have in effect additional requirements regarding wellhead setbacks and operational containment.

Product must be used in a manner that will prevent back siphoning in wells, spills or improper disposal of excess pesticide, spray mixtures or rinsates.

GENERAL APPLICATION INSTRUCTIONS (9.0)

Dismiss CA Herbicide may be applied to soil as a preplant incorporated treatment or as a pre-emergence (prior to weed and/or crop emergence) surface application. Additional application methods include post-plant treatments, over-the-top and layby, in various crops. Application methods are defined in the following Crop Use Directions sections.

Preplant incorporated treatments require a uniform surface application followed by incorporation. Do not incorporate to a depth greater than 2 inches which may result in poor weed control. Care must be taken not to create overlaps in treated zones due to soil movement, which will result in excessive Dismiss CA Herbicide rates that could result in adverse crop response.

All soil applications and the residual activity of post-plant applications of Dismiss CA Herbicide require adequate moisture for herbicidal activation. The ultimate amount of moisture, whether supplied by rainfall or irrigation, is dependent on several factors. These factors include but are not limited to existing soil moisture at application, soil type, organic matter and tilth. In crop situations dependent on rainfall, Dismiss CA Herbicide can await activating moisture for extended periods (10 to 14 days or longer) depending on the soil parameters described above. Once activated, Dismiss CA Herbicide will provide activity on existing weeds. The level of activity will depend on the weed species and their size at time of activation. Where irrigation is not available and rainfall has not provided activation, particularly for surface applications of Dismiss CA Herbicide, a shallow incorporation is recommended for destruction of any germinating weeds and to incorporate Dismiss CA Herbicide. Herbicide incorporation will initiate the process of activation with existing soil moisture. In circumstances where prolonged periods without rainfall and/or irrigation is not possible, alternative or additional weed management practices (cultivation or post-applied herbicides) may be required.

Extreme care must be exercised and the Crop Specific Use Directions followed exactly in crops allowing post plant applications of Dismiss CA Herbicide. Over-the-top and lay-by applications will provide contact and residual weed control, depending on species. The addition of surfactants may increase contact weed control performance but may also increase the risk of adverse crop response as well.

CALIFORNIA ONLY SPECIFIC RESTRICTIONS ON APPLICATIONS OF DISMISS CA HERBICIDE. (9.1)

Artificial Recharge Basins. Do not use below the high water line inside artificial recharge basins (a surface facility, such as an infiltration pond or basin, or spreading ground that is specifically designed and managed to increase the infiltration of introduced surface water supplies into a ground water basin) unless this product is applied six months or more before the basin is used to recharge ground water.

Unlined Canals and Ditches. Do not use below the high water line inside unlined canals and ditches unless either (a) the pesticide user can document that the percolation rate of the canal or ditch is equal to or less than 0.2 inches per hour (0.002 gallons per minute per square foot), or (b) the pesticide is applied six months before water is run in the canal or ditch.

Rights-of-Way. Do not use on engineered rights-of-way in areas established by the California Department of Pesticide Regulation as leaching or runoff ground water protection areas* unless either (a) any runoff from the treated right-of-way shall pass through a noncrop fully vegetated area adjacent, and equal in area, to the treated area, or spread out onto an adjacent unenclosed fallow field that is at least 300 feet long and that will not be irrigated for six months following application with the exception of the addition of adequate moisture that is required for herbicidal activation following application as described under General Application Instructions, with full consideration of any plantback restrictions, or (b) the property operator complies with any permit issued pursuant to the storm water provisions of the federal Clean Water Act eprtaining to the treated area.

Runoff Ground Water Protection Areas. Do not use in areas identified by the California Department of Pesticide Regulation as a runoff ground water protection areas* unless one of the following management practices can be met:

(a) Soil disturbance. Within seven days before this product is applied, the soil to be treated shall be disturbed by using a disc, harrow, rotary tiller, or other mechanical method. This subsection does not apply to the area to be treated that is immediately adjacent to the crop row and that does not exceed 33 percent of the distance between crop rows or, in citrus, to the band from the tree row to the dripline; or

(b) Incorporation of the pesticide. Within 48 hours after the day this product is applied, the pesticide shall be incorporated on at least 90 percent of the area treated; using a disc, harrow, rotary tiller, or other mechanical method, or by sprinkler or low flow irrigation, including chemigation where allowed by the label, using a minimum of ¼ inch of irrigation water and a maximum of one inch as described under General Application Instructions, at application rates that do not cause surface water runoff from the treated property or to wells on the treated property; or

(c) Band treatment. This product is applied as a band treatment immediately adjacent to the crop row so that not more than 33 percent of the distance between rows is treated or, in citrus, not more than the area from the tree row to the dripline is treated; or

(d) Timing of application. This product is applied between April 1 and July 31; or

(e) Retention of runoff on field. For six months following the application, the field shall be designed, by berms, levees, or nondraining circulation systems, to retain all irrigation runoff and all precipitation on, and drainage through, the field. The retention area on the field shall not have a percolation rate of more than 0.2 inches per hour (5 inches per 24 hours); or

(f) Retention of runoff in a holding area off the field. For six months following the application, all runoff shall be channeled to a holding area off the application site, under the control of the property operator, that is designed to retain all irrigation runoff and all precipitation on, and drainage through, the treated field and all other areas draining into that holding area. The holding area shall not have a percolation rate of more than 0.2 inches per hour (5 inches per 24 hours); or

(g) Runoff onto a fallow field. For six months following application, runoff shall be managed so that it runs off onto an adjacent unenclosed fallow field at least 300 feet long that is not irrigated for six months after application with the exception of the addition of adequate moisture that is required for herbicidal activation following application as described under General Application Instructions, with full consideration of any plant back restrictions.

Leaching Ground Water Protection Areas. Do not use in areas designated by the California Department of Pesticide Regulation as leaching ground water protection areas* unless either (a) the user does not apply any irrigation water for six months following application of this product or (b) the user applies this product to the planting bed or the berm above the level of irrigation water in the furrow or basin and the water level shall remain at or below that level for six months following application of the pesticide with the exception of the addition of adequate moisture that is required for herbicidal activation following application as described under General Application Instructions, or (c) irrigation is managed so that the ratio of the amount of irrigation water applied divided by the net irrigation requirement is 1.25 or less for six months following application of this product.

* Consult with your County Agricultural Commissioner to determine whether the application will be within an area designated by the California Department of Pesticide Regulation as either a Runoff Ground Water Protection Area or a Leaching Ground Water Protection Area. Details regarding the locations of these Areas are also available via the internet at www.cdpr.ca.gov/docs/emon/ grndwtr/gwp_regs.htm.

DISMISS CA HERBICIDE PRODUCT USE RATES (10.0)

The following directions for the selection of Dismiss CA Herbicide application rates are critical to achieve maximum performance and to insure maximum crop safety. The user is required to read and follow the specific Dismiss CA Herbicide use directions and restrictions for each crop as defined in subsequent sections of this label. The user is cautioned that some crops respond differently to Dismiss CA Herbicide. This response is governed by the Dismiss CA Herbicide application rate, various soil factors and inherent crop sensitivity. The Crop Specific Use Directions have been designed to minimize the risk of adverse crop response while maintaining optimum weed control.

Mode of Action (10.1)
Sulfentrazone, the active ingredient in Dismiss CA Herbicide, is a potent inhibitor of the enzyme Protoporpyrinogen Oxidase IX (PPO IX) required for the formation of chlorophyll. Inhibition of PPO IX enzyme results in the liberation of singlet oxygen (O) that, in turn, disrupts cellular membranes and causes cellular leakage. The ultimate manifestation of the process is cellular death leading to plant death. The selective herbicidal activity of sulfentrazone is based on its greater affinity for the PPO IX enzyme in weed species versus crop plants.

Mechanism of Action (10.2)
Following the application of Dismiss CA Herbicide to soil, germinating seeds and seedlings take up sulfentrazone from the soil solution. The amount of sulfentrazone in soil solution, and available for weed uptake, is determined primarily by soil type, organic matter and soil pH. Sulfentrazone adsorbs to the clay and organic matter (OM) fractions of soils; effectively limiting the amount of active ingredient immediately available to control weeds. Soils typically increase in clay content through the series from coarse to fine as noted in the following Soil Classification Chart, Table 1.

SOIL CLASSIFICATION CHART

Table 1

COARSE	MEDIUM	FINE
Sand	Sandy clay loam	Silty clay loam
Loamy sand	Sandy clay	Silty clay
Sandy loam	Loam	Clay loam
	Silt loam	Clay
	Silt	

Influence of Soil type, organic matter and pH on Dismiss CA Herbicide Use Rates and Crop Response
Soil organic matter content can vary widely and independently of soil type and requires an accurate analysis of representative soil samples to determine its content.

Soil pH also exerts a dramatic affect on sulfentrazone availability in the soil solution. As soil pH increases, sulfentrazone availability increases. Accurate soil pH information will require an accurate analysis of representative soil samples.

The total amount of sulfentrazone available in solution, in any given soil, is determined by the interaction of soil type (clay content), % organic matter and pH. The application timing (relative to the emergence of the crop and weeds) and amount of rainfall and/or irrigation received will ultimately determine, in conjunction with the soil parameters and pH, the amount of sulfentrazone in soil solution. It is important to note that Dismiss CA Herbicide can await activating moisture. However, diminished weed control may result due to the successive increase in weed growth versus timing of activation.

It is important to note that irrigation with highly alkaline water (high pH) following a Dismiss CA Herbicide soil application can also significantly increase the amount of sulfentrazone available in the soil solution. Irrigation with water having a pH greater than 7.5 could result in adverse crop response. This response will ultimately depend on initial Dismiss CA Herbicide application rate, timing, amount and pH of irrigation water and sensitivity of the crop and it's growth stage when irrigated. The risk of adverse crop response will lessen with the advance in growth stage among most crops.

The following Crop Specific Use Directions have been designed with specific Dismiss CA Herbicide recommendations for each crop based on the soil type, soil organic matter, and soil pH interactions described above. The user is cautioned that crop tolerance and weed control performance are based on strict adherence to these recommendations.

APPLICATION INFORMATION (11.0)

Ground Application

Utilize a boom and nozzle sprayer equipped with the appropriate nozzles, spray tips and screens and adjusted to provide optimum spray distribution and coverage at the appropriate operating pressures. Utilize nozzles that produce minimal amounts of fine spray droplets to avoid spray drift or inadequate foliar and/or soil coverage. Apply a minimum of 10 gallons of finished spray per acre by ground. Be aware that overlaps and slower ground speeds while starting, stopping or turning while spraying may result in excessive application and subsequent crop response.

Do not apply when wind speed favors drift beyond the area intended for treatment.

Aerial Application (11.2)

Use nozzle types and arrangements that will provide optimum coverage while producing a minimal amount of fine droplets. Apply sufficient spray volume to achieve adequate coverage. Apply a minimum of 5 gallons of finished spray per acre.

Do not apply when wind speed favors drift beyond the area intended for treatment.

Chemigation Application (11.3)

Dismiss CA Herbicide may be applied through sprinkler irrigation systems including center pivot, lateral move, end tow, solid set, or hand move irrigation systems. Do not apply this product through any other type of irrigation system. Do not connect any irrigation system (including greenhouse systems) used for pesticide application to a public water system. Crop injury, lack of effectiveness or illegal residues on or in the crop can result from non-uniform distribution of treated water. If you have questions about calibration, you should contact State Extension Service specialists, equipment manufacturers, or other experts. A person knowledgeable of the chemigation system and responsible for its operation, or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.

It is important to note that irrigation with highly alkaline water (high pH) following a Dismiss CA Herbicide soil application can also significantly increase the amount of sulfentrazone available in soil solution. Irrigation with water having a pH greater than 7.5 could result in adverse crop response. This response will ultimately depend on initial Dismiss CA Herbicide application rate, application timing, amount and pH of the irrigation water, and the sensitivity of the crop and the growth stage when irrigated. The risk of adverse crop response will lessen with advancing growth stages of most crops.

The system must contain a functional check valve, vacuum relief valve, and low-pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow. The pesticide injection pipeline must also contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump. The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the

supply tank when the irrigation system is either automatically or manually shut down. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops. The irrigation line or water pump must include a functional pressure switch, which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.

Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

Dismiss CA Herbicide should be metered into the irrigation system continuously for the duration of the water application. Dismiss CA Herbicide should be diluted in sufficient volume to insure accurate application over the area to be treated. Use the appropriate amount of water to carry the product to the soil surface. Continuous agitation is required to maintain product suspension in the solution tank. A jar test should be conducted to ensure that phase separation would not occur during dilution and application. Failure to achieve a uniform dilution throughout the time of application may result in undesirable residues or less than desirable weed control. Flush the lines at the completion of the application and then turn the water off promptly.

When using water from public water systems; DO NOT APPLY Dismiss CA Herbi cide THROUGH ANY IRRIGATION SYSTEM **PHYSICALLY CONNECTED** TO A PUBLIC WATER SYSTEM. Public water system means a system for the provision to the public of piped water for human consumption if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days of the year. Dismiss CA Herbicide may be applied through irrigation systems, which may be **supplied** by a public water system **only if** water from the water system is discharged into a reservoir tank prior to pesticide introduction. There shall be a complete physical break (air gap) between the outlet end of the fill pipe and to top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe. Before beginning chemigation, always make sure that the air gap exists and that there is no blockage of the overflow of the reservoir tank.

Application with Dry Fertilizers (11.40)

Dismiss CA Herbicide may be applied impregnated on dry fertilizers. When applied as directed with adequate soil coverage, Dismiss CA Herbicide dry bulk fertilizer mixtures will provide satisfactory weed control.

Follow all Dismiss CA Herbicide label directions regarding product use rates per acre, registered crops, incorporation, special instructions and precautions.

Apply Dismiss CA Herbicide/dry fertilizer mixtures with ground equipment only.

All individual state regulations relating to dry bulk fertilizer blending, registration, labeling, and application are the responsibility of the individual and/or company preparing, storing, transporting, selling or applying the Dismiss CA Herbicide /dry fertilizer mixture.

Impregnation Directions (11.41)

To impregnate Dismiss CA Herbicide on dry bulk fertilizer, use a closed rotary-drum mixer or other commonly used dry bulk fertilizer blender equipped with suitable spray equipment.

Prepare a slurry of Dismiss CA Herbicide in a clean container using clear water. Slowly add the Dismiss CA Herbicide /water slurry to the impregnation spray tank and finish filling as needed with clear water. Spray nozzles must be placed to provide uniform coverage of Dismiss CA Herbicide onto the *fertilizer during mixing.*

Refer to the SPRAYER EQUIPMENT CLEAN-OUT section for directions for cleaning impregnation equipment, transport equipment, loading equipment and application equipment.

Apply the Dismiss CA Herbicide dry bulk fertilizer with an accurately calibrated dry fertilizer spreader. The Dismiss CA Herbicide dry bulk fertilizer mixture must be spread uniformly on the soil surface. Uneven spreading leaving untreated areas can cause poor weed control or overlapping areas with potential increased Dismiss CA Herbicide use rates could result in possible crop response.

A minimum of 200 pounds of dry bulk fertilizer impregnated with the recommended amount of Dismiss CA Herbicide must be applied per acre to achieve adequate soil coverage for satisfactory weed control.

DO NOT impregnate Dismiss CA Herbicide onto coated ammonium nitrate or limestone because these materials will not absorb the herbicide.

Refer to the appropriate crop section of the Dismiss CA Herbicide label to determine the rate of Dismiss CA Herbicide to be applied per acre. Use the following table to determine the amount of Dismiss CA Herbicide to be impregnated on a ton (2000 pounds) of dry bulk fertilizer based on the rate of fertilizer that will be applied per acre.

For those rates not listed in the following table, calculate the amount of Dismiss CA Herbicide to be impregnated on a ton of dry bulk fertilizer using the following formula:

$$\frac{2000}{\text{Pounds dry fertilizer per acre}} \times \text{Dismiss CA use rate in fluid ounces per acre} = \text{ounces of Dismiss CA to be applied per ton of fertilizer}$$

RATE CHART FOR IMPREGNATION OF DRY BULK FERTILIZERS WITH Dismiss CA Herbicide
Table 2

	Ounces Dismiss CA Herbicide per ton of fertilizer		
	Dismiss CA Herbicide Use Rate Per Acre		
Dry Fertilizer Rate (lb/acre)	8.0 Fluid Ounces per Acre	10.1 Fluid Ounces per Acre	12.0 Fluid Ounces per Acre
200	80	101	120
250	64	80.8	96
300	53.3	67.3	80
350	45.7	57.7	68.6
400	40	50.5	60
450	35.6	44.9	53.3

Application with Liquid Fertilizer (11.42)

Dismiss CA Herbicide may be applied using liquid fertilizer solutions as the carrier. The fertilizer solutions may either be concentrate formulations as blended or diluted with water. When applied as directed with adequate soil coverage, Dismiss CA Herbicide applied with liquid fertilizer mixtures will provide satisfactory weed control. However, adequate soil coverage is essential to achieve acceptable levels of weed control.

Herbicide mixing, solution stability and/or compatibility problems can occur when liquid fertilizers are used as a carrier. Compatibility tests must be conducted prior to mixing to insure tank mixture compatibility and stability. The use of compatibility agents may be beneficial to achieve and maintain a *homogenous solution.*

Mixing Instructions for Liquid Fertilizer Applications (11.43)

Fill the clean spray tank to one half of the total volume with the fertilizer solution. Start the spray tank agitation system. Prepare a slurry of Dismiss CA Herbicide in a clean container with clean water using equal volumes of Dismiss CA Herbicide and clean water. Slowly add the Dismiss CA Herbicide /water slurry to the spray tank. Carefully rinse the slurry container, adding the rinsate to the spray tank. Better mixing of the Dismiss CA Herbicide /water slurry may be achieved if the slurry is added using induction systems on the sprayer fill plumbing system.

Complete filling the spray tank to the desired level. Sufficient and continuous spray tank agitation is required at all times to maintain a homogenous spray solution. The spray system must be designed such that there is sufficient flow capacity to uniformly apply the spray mixture and maintain adequate tank agitation. Some systems may require separate pumps to simultaneously supply the spray system and the spray tank agitation system. Insure the Dismiss CA Herbicide slurry is thoroughly mixed before application.

For tank mixtures with other herbicide(s), a compatibility test must be conducted to insure product compatibility before mixing. Read and follow all the directions, precautions and restrictions of the tank mixture products prior to mixing.

Apply the Dismiss CA Herbicide spray mixture immediately after mixing. Do not store the sprayer overnight or for any extended period of time with the Dismiss CA Herbicide spray mixture remaining in the tank.

Do not premix Dismiss CA Herbicide spray solutions in nurse tanks.

Follow all Dismiss CA Herbicide label directions regarding product use rates per acre, registered crops, application instructions, incorporation directions, special instructions and all precautions.

All individual state regulations relating to liquid fertilizer blending, storage, transportation, registration, labeling, and application are the responsibility of the individual and/or company preparing, selling or applying the Dismiss CA Herbicide and fertilizer mixture.

SPRAY DRIFT REDUCTION ADVISORY (12.0)

To avoid drift, do not apply when wind speeds exceed 10 mph. Do not exceed spray pressures of 40 psi unless specified by the manufacturer of drift reducing spray tips and nozzles.

Spray Drift Management (12.1)
AVOIDING SPRAY DRIFT AT THE APPLICATION SITE IS THE RESPONSIBILITY OF THE APPLICATOR AND THE GROWER.

The interaction of many equipment and weather related factors determine the potential for spray drift. The applicator and the grower are responsible for considering all these factors when making decisions.

The following drift management requirements must be followed to avoid off-target movement from aerial applications. These requirements do not apply to forestry applications, public health uses or to applications of dry materials.

1. The distance of the outermost nozzles on the boom must not exceed ¾ the length of the wingspan or rotor.
2. Nozzles must always point backward parallel with the air stream and never be pointed downwards more than 45 degrees.
3. Observe the regulations of the State where applications are made.
4. Applicators must observe and abide by the requirements of the Aerial Drift Reduction Advisory.

Information on Droplet Size
The most effective way to reduce drift potential is to apply large droplets. The best drift management strategy is to apply the largest droplets that provide sufficient coverage for pesticide performance. Applying larger droplets reduces drift potential but will not prevent drift if applications are made improperly or under unfavorable environmental conditions. (See information on Wind, Temperature and Humidity, and Temperature Inversions in subsequent sections).

Controlling Spray Droplet Size (12.3)
Volume – Use high flow rate nozzles to apply the greatest practical spray volume. Nozzles with higher rated flow generally produce larger droplets.

Pressure - When higher flow rates are needed, use higher flow rate nozzles rather than increasing spray pressure.

Do not exceed the nozzle manufacturer's recommended pressures. Lower pressure produces larger droplets in many types of nozzles.

Number of Nozzles – Use the minimum number of nozzles that provide uniform coverage.

Nozzle Orientation – For aerial application, the recommended practice is to orient nozzles so that the spray is released parallel to the airstream. This orientation usually produces larger droplets as compared to other nozzle orientations. Significant nozzle deflection from horizontal will reduce droplet size and increase drift potential.

Nozzle Type - Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low drift nozzles for both ground and aerial applications. Solid stream nozzles oriented straight back usually produce the largest droplets and the lowest drift potential in aerial applications

Boom Length – For some aerial use patterns, reducing the effective boom length to less than ¾ of the wingspan or rotor length may further reduce drift without reducing swath width.

Application Height - Aerial applications should not be made at a height greater than 10 feet above the top of the target plant canopy unless a greater height is required for aircraft safety. Making applications at the lowest height that is safe reduces exposure of droplets to evaporation and wind.

Swath Adjustment – When aerial applications are made with a crosswind, the swath will be displaced downwind. Therefore, on the upwind and downwind edges of the field, the applicator must compensate for this displacement by the path of the aircraft upwind. Swath adjustment or offset distance should increase when conditions favor increased drift potential (higher winds, smaller droplets, etc).

Wind – Drift potential is lowest between wind speeds of 3-10 mph. However, many factors, including droplet size and equipment type determine drift potential at any given wind speed. Application should be avoided below 3 mph due to variable wind direction and high inversion potential. NOTE: Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they may potentially affect spray drift.

Temperature and Humidity – When making applications in low relative humidity, set up equipment to produce larger droplets to compensate for evaporation. Droplet evaporation is most severe when conditions are both hot and dry.

Temperature Inversions – Applications should not occur during a temperature inversion because drift potential is high. Temperature inversions restrict vertical air mixing, which causes small-suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions due to the low speed and variable winds common during inversions. Temperature inversions are characterized by increasing temperatures with altitude and are common during conditions of limited cloud cover and little to no wind. They often begin to form as the sun sets and may often continue into the morning. The presence of a temperature inversion may be indicated by ground fog. However if fog is not present, the movement of smoke from a ground source or an aircraft smoke generator can also identify inversions. Smoke that remains in layers and moves laterally in a concentrated cloud (under low speed wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.

Sensitive Areas – The pesticide should only be applied when the wind is blowing away from sensitive areas (e.g. residential areas, bodies of water, known habitat for threatened or endangered species, non-target crops).

Off-Target Movement of Dismiss CA Herbicide
Drift of dilute spray mixtures containing Dismiss CA Herbicide must be prevented. Observation of the preceding environmental conditions, correct application equipment design, calibration and application practices will significantly diminish the risk of off-target spray drift. Dismiss CA Herbicide can cause significant symptomology by drift on to sensitive crops and other plants. This symptomology may manifest initially as discreet, localized spots where contacted by Dismiss CA Herbicide drift mixtures. Depending on concentration of the spray solution and droplets size (effectively determining the dosage of sulfentrazone) and also depending on the inherent sensitivity of the plants involved, these spots or lesions may or may not coalesce. These effects will usually not have lasting effects on plant growth, but will likely reduce the value of affected fruit or foliage where grade or quality is associated with appearance. In severe drift instances with particularly sensitive crops, defoliation of affected foliage could result. Failure to follow these guidelines and environmental prohibitions that then result in off-target movement or drift of Dismiss CA Herbicide on to unintended crops or plants, irrespective of severity, constitutes misapplication of this product. FMC accepts no responsibility or liability for potential crop effects that may result from such misapplication of Dismiss CA Herbicide.

MAXIMUM ALLOWABLE DISMISS CA HERBICIDE USE PER ACRE PER 12 MONTH PERIOD* (13.0)

Refer to the crop section of this label for specific product use directions.

Table 3

Crop	Ounces Dismiss CA Herbicide Per Acre	Pound Active Sulfentrazone Per Acre
Row Crops		
Corn	12.0	0.375
Fallow	8.0	0.25
Peanuts	9.6	0.30
Potatoes	8.0	0.25
Soybeans	12.0	0.375
Sugarcane	12.0	0.375
Sunflowers	8.0	0.25
Tobacco	8.0	0.375
Vegetable Crops		
Asparagus	12.0	0.375
Cabbage	12.0	0.375
Dry Beans & Peas	8.0	0.25
Horseradish	8.0	0.25
Oil Crops		
Mint	12.0	0.375

*The total allowed usage per twelve-month period includes all applications made to the field per twelve-month interval. This includes fallow treatments, burndown treatments, planting time and all in-season treatments. The twelve-month period is considered to begin upon the initial Dismiss CA Herbicide application.

CROP ROTATIONAL RESTRICTIONS (14.0)

The following Table 4 shows the minimum interval in months from the time of the last Dismiss CA Herbicide application until Dismiss CA Herbicide treated soil can be replanted to the crops listed. When Dismiss CA Herbicide is tank mixed with another herbicide, refer to the partner label for recropping instructions, following the directions that are most restrictive.

For all other crops not listed below, the rotational interval is a minimum of 12 months. Some crops have rotational intervals greater than 12 months after a Dismiss CA Herbicide application due to potential crop injury. A representative bioassay of the field shall be completed with the rotational crop to accurately determine the planned crop's sensitivity to sulfentrazone.

CROP ROTATIONAL RESTRICTIONS**

Table 4

Crop	Interval (Months)
Asparagus	Anytime
Barley	4
Cabbage	Anytime
Canola	24
Cereal Grains (Buckwheat, Oats, Pearl Millet, Proso Millet, Teosinte, Wild Rice)	12
Corn, Field	10
Corn, Pop	18
Corn, Sweet	18
Cotton	18
Dry Shell Peas and Beans	Anytime
Horseradish	Anytime
Limas	Anytime
Mint	Anytime
Peanuts	Anytime
Potatoes	Anytime
Rice	10
Rye	4
Sorghum	10 *
Soybeans	Anytime
Sugar Beets	36
Sugarcane	Anytime
Sunflowers	Anytime
Sweet Potatoes	12
Triticale	4
Tobacco	Anytime
Turf	Anytime
Wheat	4

*Sorghum – 18-month rotation for rates above 8.0 oz/acre
**For all other crops not listed, the rotation interval is a minimum of 12 months.

BAND TREATMENT APPLICATIONS (15.0)

For band treatments, apply the broadcast equivalent rate and volume per acre. To determine these:

Band Width Inches / Row Width Inches	X	Broadcast Rate Per Acre	=	Band Rate
Band Width Inches / Row Width Inches	X	Broadcast Volume Per Acre	=	Band Volume

MIXING AND LOADING INSTRUCTIONS (16.0)

Dismiss CA Herbicide may be applied alone, or in tank mixtures with other herbicides for the control of additional weed species. Mixtures with some other pesticides have not been tested. Conduct appropriate compatibility tests prior to tank mixing with other pesticides. Follow all precautions and restrictions on the tank mix partner label.

It is important that spray equipment is clean and free of existing pesticide residues before preparing Dismiss CA Herbicide spray mixtures. Follow the spray tank clean out procedures specified on the label of the product or products previously applied.

For best results fill spray tank with one half of the volume of clean water needed for the field to be treated. Start agitation system. Prepare a slurry of Dismiss CA Herbicide in a clean container using clean water. Slowly add the Dismiss CA Herbicide /water slurry to the spray tank. Carefully rinse the slurry container, adding the rinsate to the spray tank. Complete filling the spray tank to the desired level. Continuous spray tank agitation is required at all times to maintain a uniform spray solution.

Make sure Dismiss CA Herbicide is thoroughly mixed before application or before adding another product to the spray tank.

Use the Dismiss CA Herbicide spray mixture immediately after mixing. Do not store the sprayer overnight or for any extended period of time with the Dismiss CA Herbicide spray mixture remaining in the tank.

Do not premix Dismiss CA Herbicide spray solutions in nurse tanks.

If Dismiss CA Herbicide is tank mixed with other herbicides, all additional directions, restrictions and precautions for the tank mixture herbicides must be followed.

SPRAYER EQUIPMENT CLEAN-OUT (17.0)

As soon as possible after spraying Dismiss CA Herbicide and before using sprayer equipment for any other applications, the sprayer must be thoroughly cleaned to avoid potential crop affects using the following procedure. Residues left in mixing equipment, spray tanks, hoses, spray booms and nozzles can cause crop effects if they are not properly cleaned. In addition, users must take appropriate steps to ensure proper equipment clean-out for any other products mixed with Dismiss CA Herbicide as required on the other product labels. More complete cleaning can be achieved if the spray system is cleaned immediately following the application.

1. Drain sprayer tank, hoses, spray boom and spray nozzles. Use a high-pressure detergent wash to remove physical sediment and residues from the inside of the sprayer tank and thoroughly rinse. Then, thoroughly flush sprayer hoses, spray boom and spray nozzles with a clean water rinse. Remove and clean spray tips and all filters and screens (tank, spray hose and spray tips) separately in the ammonia solution of Step 2.

2. Next, prepare a sprayer cleaning solution by adding three gallons of ammonia (containing at least 3% active) per 100 gallons of clean water. Prepare sufficient cleaning solution to allow the operation of the spray system for a minimum of 15 minutes to thoroughly flush hoses, spray boom and spray nozzles.

3. Convenient and thorough cleaning of the sprayer can be achieved if the ammonia solution or fresh water is left in the spray tank, hoses, spray booms and spray nozzles overnight or during storage.

4. Before using the sprayer, completely drain the sprayer system. Rinse the tank with clean water and flush through the hoses, spray boom, and spray nozzles with clean water. Remove and clean spray tips and all filters and screens (tank, spray hose and spray tip) separately in an ammonia solution.

5. Properly dispose of all cleaning solution and rinsate in accordance with Federal, State, and local regulations and guidelines.

Do not apply sprayer cleaning solutions or rinsate to sensitive crops.

Do not store the sprayer overnight or for any extended period of time with Dismiss CA Herbicide spray solution remaining in the tank, spray lines, spray boom plumbing, spray nozzles or strainers.

If the sprayer has been stored or idle, purge the spray boom and nozzles with clean water before beginning any application.

Should small quantities of Dismiss CA Herbicide remain in inadequately cleaned mixing, loading and/or spray equipment, they may be released during subsequent applications potentially causing effects to certain crops and other vegetation. FMC accepts no liability for any effects due to inadequately cleaned equipment.

Do not drain of flush equipment on or near desirable trees or plants.

Do not contaminate any body of water including irrigation water that may be used on other crops.

WEEDS LIST (18.0)

When Dismiss CA Herbicide is applied in accordance with the General Application information and the specific crop use directions, Dismiss CA Herbicide applied alone or in recommended tank mixtures will provide control of the following weeds. Refer to the specific crop section.

Table 5

Scientific Name	Scientific Name
Amaranth, livid	*Amaranthus lividus*
Amaranth, Palmer	*Amaranthus palmeri*
Amaranth, Powell	*Amaranthus Powell II*
Amaranth, spiny	*Amaranthus spinosus*
Amaranth, spleen	*Amaranthus dubius*
Anoda, spurred	*Anoda cristata*
Bedstraw, catchweed	*Galium aparine*
Carpetweed	*Mollugo verticillata*
Chickweed, common	*Stellaria media*
Copperleaf, hophornbeam	*Acalypha ostryeafolia*
Copperleaf, Virginia	*Acalypha virginica*
Crabgrass, large	*Digitaria sanguinalis*
Crabgrass, smooth	*Digitaria ischaemum*
Crabgrass, Southern	*Digitaria ciliaris*
Croton, tropic	*Croton glandulosus*

Crownbeard, golden	*Verbesina encelioides*
Cupgrass, wooly	*Erichloa villosa*
Cyperus, hedgehog	*Cyperus compressus*
Daisy, American	*Eclipta alba*
Devilsclaw	*Proboscidea louisiana*
Dock, curly	*Rumex crispus*
Eclipta	*Eclipta prostrata*
Filaree, redstem	*Erodium cicutarium*
Flixweed	*Descurainia sophia*
Galinsoga, hairy	*Galinsoga ciliata*
Goosegrass	*Eleusine indica*
Groundcherry, clammy (seedling)	*Physalis heterophylla*
Groundcherry, cutleaf	*Physalis angulata*
Jimsonweed	*Datura stramonium*
Kochia (ALS and Triazine Resistant)	*Kochia scoparia*
Ladysthumb	*Polygonum persicaria*
Lambsquarters, common	*Chenopodium album*
Lettuce, miners	*Montia perfoliata*
Mallow, common	*Malva neglecta wall r.*
Mayweed, Chamomile	*Anthemis cotula l.*
Milkweed, honeyvine	*Ampelamus albidus*
Morningglory, entireleaf	*Ipomoea hederacea integriuscula*
Morningglory, ivyleaf	*Ipomoea hederacea hederacea*
Morningglory, palmleaf	*Ipomoea wrightii*
Morningglory, purple	*Ipomoea turbinata*
Morningglory, red	*Ipomoea, coccinea L.*
Morningglory, scarlet	*Ipomoea coccinea*
Morningglory, smallflower	*Jacquemontia tamnifolia*
Morningglory, tall	*Ipomoea, purpurea*
Mustard, tumble	*Sisybrium altissimum*
Nightshade, black	*Solanum nigrum*
Nightshade, Eastern black	*Solanum ptycanthum*
Nutsedge, purple	*Cyperus rotundus*
Nutsedge, yellow	*Cyperus esculentus*
Orchardgrass	*Dactylis glomerata*
Panicum, fall	*Panicum dichotomiflorum*
Pigweed, redroot	*Amaranthus retroflexus*
Pigweed, smooth	*Amaranthus hybridus*
Plantain, blackseed	*Plantago rugelii decne*
Plantain, narrow-leaved	*Plantago lanceolata*
Poorjoe	*Diodia teres*
Porophyllum	*Porophyllum rederale*
Poinsettia, wild	*Euphorbia heterophylla*
Purslane, common	*Portulaca oleracea*
Redmaids	*Calandrinia ciliata*
Redweed	*Melochia corchorifolia*
Sedge, annual	*Carex spp.*
Senna, coffee	*Cassia occidentalis*
Sheperdspurse	*Capsella bursa-pastoris*
Sida, prickly	*Sida spinosa*
Sida, Southern	*Sida acuta*
Signalgrass, broadleaf	*Brachiaria platyphylla*
Smartweed, PA (seedling)	*Polygonum pensylvanicum*
Smellmellon	*Cucumis melo*
Starbur, bristly	*Acanthospermum hispidum*
Stinkgrass	*Eragrostis cilianensis*
Toadflax, yellow	*Linaria vulgaris*
Tassleflower, red	*Emilio sonchifolia*
Thistle, Russian	*Salsola kali*
Waterhemp, common	*Amaranthus rudis*
Waterhemp, tall	*Amaranthus tuberculatos*
Waterprimrose, winged	*Ludwigia decurrens*
Witchgrass	*Panicum capillare*

REPLANTING INSTRUCTIONS (19.0)

If initial planting of labeled crops fails to produce a stand, only labeled crops for Dismiss CA Herbicide or the tank mix partner; whichever is most restrictive, may be planted. Do not retreat field with Dismiss CA Herbicide or other herbicide containing sulfentrazone. Do not plant treated fields with

any crop at intervals that are inconsistent with the [illegible]ional Crop Guidelines on this label. When replanti[illegible]se minimum soil tillage to preserve the herbicide barrier and achieve maximum weed control.

ROW CROPS

CORN (Field Corn, Seed Corn, Popcorn) (For Use Only with GMO Varieties Tolerant to PPO Herbicides) (20.0)

Table 6

Dismiss CA Use Rate Table (Corn) Fall, Spring Early Preplant, Preemergence, and Preplant Incorporated Applications			
Broadcast Rate	**Fluid Ounces Dismiss CA per acre**		
	Soil Texture		
% Organic Matter	**Coarse**	**Medium**	**Fine**
<1.5	3.0 – 4.5	3.0 – 4.5	3.75 – 5.25
1.5-3.0	3.0 – 4.5	3.75 – 6.0	4.5 – 6.75
>3	3.75 – 6.0	4.5 – 6.75	6.0 – 8.0
Refer to the previous information on soil types under the COARSE, MEDIUM, and FINE categories Use higher rates for soils of pH less than 7.0 and lower rates for pH greater than 7.0 within the rate range.			

Preplant (Fall Applications) (20.1)
Dismiss CA Herbicide may be applied in the fall as a preplant treatment prior to corn planting the following spring.

Dismiss CA Herbicide can be used alone or in a tank mixture with other herbicides to control susceptible broadleaves, sedges and grasses in corn. Apply Dismiss CA in conventional tillage or conservation tillage (reduced tillage or no-tillage) cropping systems using rates recommended in the Table 6. Dismiss CA Herbicide should be applied to the stubble or soil surface and allow moisture from rainfall or snow to move the product into the soil. Do not mechanically incorporate in the fall or spring as this operation can destroy the herbicide barrier allowing weed escapes to occur. Do not apply to frozen soils or existing snow cover to prevent Dismiss CA Herbicide runoff from rain or snowmelt that may occur following application. Dismiss CA Herbicide may be tankmixed with other burndown herbicides to control emerged weeds in the fall or residual soil herbicides that are labeled for fall use on corn. Select the correct Dismiss CA Herbicide use rate for corn from the Table 6 for your soil type and organic matter. Due to the extended period of time between the fall application and corn planting, the use rate of Dismiss CA Herbicide should be the mid to high rate within the rate range for the appropriate soil type and organic matter.

Early Preplant and Preemergence (Spring Applications) (20.2)
Dismiss CA Herbicide may be applied preplant on the soil surface in the spring to control weeds in conventional and conservation tillage systems. Dismiss CA Herbicide can be applied from 45 days prior to planting until 3 days after planting as a preemergence broadcast or banded soil application if corn seedlings have not broken the soil surface and if the seed furrow is completely closed. For preemergence applications 14 to 45 days prior to planting, use the mid to high rate in the appropriate rate range for the soil and organic matter type listed in Table 6. Dismiss CA Herbicide can be tank mixed with other herbicides labeled for use in corn. To control insect pests such as cutworm or armyworm that may be present, Dismiss CA Herbicide may be tankmixed with insecticides including Mustang Max or Capture 2EC. If dry conditions persist following preemergence application of Dismiss CA Herbicide, a shallow incorporation may be needed to activate the herbicide. If weeds are emerged at the time of Dismiss CA Herbicide application, use a burndown herbicide in conjunction with Dismiss CA as needed. When planting into soil treated preplant with Dismiss CA Herbicide, minimize soil disturbance to maintain the herbicide barrier on the soil surface to achieve maximum weed control. Observe all precautions, instructions, and rotational cropping guidelines of each product's label when tank mixing, including all references to potential carryover and crop injury warnings or restrictions.

Preplant Incorporated (20.3)
Dismiss CA Herbicide may be applied as a Preplant Incorporated treatment in the spring prior to planting in reduced and conventional tillage corn. Dismiss CA Herbicide should be shallowly incorporated or mixed thoroughly into the soil to a maximum depth of 2 inches using a correctly adjusted implement such as a field cultivator, field finisher or disk harrow. Incorporating Dismiss CA Herbicide deeper than 2 inches may result in inconsistent weed control. Use the appropriate rate from Table 6 for the soil texture, organic matter, and pH level of the soil. Dismiss CA Herbicide can be tankmixed with other soil-applied herbicides and insecticides labeled for preplant incorporation in corn. Observe all precautions, instructions, and rotational cropping guidelines of each product's label when tank mixing, including all references to potential carryover and crop injury warnings or restrictions.

Dismiss CA Herbicide may be applied more than once to the same crop in split or sequential applications to provide season-long control of difficult-to-control existing or late emerging weeds.

Precautions
These Crop Specific Use directions are based upon the interactive effects of Dismiss CA Herbicide (sulfentrazone) and the primary soil and environmental factors, which affect its activity on various weed species and tolerance among crops. The user is required to observe the instructions and guidance previously presented under General Application Instructions, General Dismiss CA Herbicide Product Use Rates, Rotational Crop Guidelines, Replanting Instructions, Weed Controlled and any other section of this label pertinent to the anticipated crop use. It is important to note that not all varieties or cultivars of a given crop species have been evaluated under treatment with Dismiss CA Herbicide. Consult university or extension weed management specialists for additional information on specific local varieties or cultivars and any other pertinent information on Dismiss CA Herbicide under specific local conditions.

Restrictions
Do not apply more than 12.0 fluid ounces (0.375 pound active) per twelve-month period. The twelve-month period is considered to begin upon the initial Dismiss CA Herbicide application.

Do not use on soils classified as sand, which have less than 1% organic matter.

Do not apply to frozen soils or existing snow cover to prevent Dismiss CA Herbicide runoff from rain or snowmelt that may occur following application.

FALLOW OR POST HARVEST BURNDOWN (21.0)

Dismiss CA Herbicide may be applied in the fall following crop harvest or in existing fallow fields of asparagus, cabbage, corn, dry shell peas and beans, horseradish, limas, mint, peanuts, potatoes, soybeans, sugarcane, sunflowers and tobacco.

Table 7

Dismiss CA Herbicide Use Rate Table

(Fallow or Post Harvest Burndown) Fall and Spring Fallow Applications			
Broadcast Rate	Fluid Ounces Dismiss CA Herbicide per acre		
	Soil Texture		
% Organic Matter	Coarse	Medium	Fine
<1.5	3.0 – 3.75	3.0 – 4.5	3.75 – 5.25
1.5-3.0	3.75 – 5.25	3.75 – 6.0	4.5 – 6.75
>3	4.5 – 6.0	4.5 – 8.0	5.25 – 8.0
Refer to the previous information on soil types under the COARSE, MEDIUM, and FINE categories Use higher rates for soils of pH less than 7.0 and lower rates for pH greater than 7.0 within the rate range.			

Fall Application (21.1)
Dismiss CA Herbicide may be applied in the fall following crop harvest or in existing fallow fields to control or suppress weeds the following season. The Dismiss CA Herbicide Rotational Crop Guidelines in Table 4 must be followed if crops are planted the next season. Dismiss CA Herbicide should be applied to the harvested crop stubble or soil surface without incorporation. Moisture in the form of rain or snow will move and activate the product. Do not mechanically incorporate in the fall or spring after application because this activity may destroy the herbicide barrier and weed escapes can occur. Do not apply to frozen soils to prevent Dismiss CA Herbicide runoff from rain or snow that may occur following application. Dismiss CA Herbicide may be tankmixed with herbicides to control emerged weeds. Sequential applications may be needed depending on weed size. In situations where weed size may interfere with Dismiss CA Herbicide reaching the soil surface, a separate burndown application prior to the application of Dismiss CA Herbicide will be required. Use full, recommended rates of burndown herbicides in combination with Dismiss CA Herbicide, or sequential applications as needed. Higher aerial spray volumes are required when there is a dense weed population or canopy.

Dismiss CA Herbicide can be tankmixed with other herbicides. Observe all precautions, instructions, and rotational cropping guidelines of each product's label when tank mixing, including all references to potential carryover and crop injury warnings or restrictions.

Spring Preemerge Application (21.2)
Dismiss CA Herbicide may be applied as a fallow treatment early in the spring provided the application is made prior to weed emergence, and adequate moisture is available to activate the Dismiss CA Herbicide. Follow the same use rate recommendations and application guidelines listed under the Fall Application section above.

Weeds Controlled
When applied according to directions, Dismiss CA Herbicide will provide control of:

Filaree, redstem	Pigweed, redroot
Kochia (ALS and Triazine Resistant)	Pigweed, smooth
Lambsquarters, common	Thistle, Russian
Morningglory, ivyleaf	Waterhemp, common
Morningglory, tall	Waterhemp, tall
Nightshade, Eastern Black	

For information on other weeds not listed above, refer to Weeds Controlled section (Table 5) of this label.

Precautions
These Crop Specific Use directions are based upon the interactive effects of Dismiss CA Herbicide (sulfen trazone) and the primary soil and environmental factors, which affect its activity on various weed species and tolerance among crops. The user is required to observe the instructions and guidance previously presented under General Application Instructions, General Dismiss CA Herbicide Product Use Rates, Rotational Crop Guidelines, Replanting Instructions, Weed Controlled and any other section of this label pertinent to the anticipated crop use. It is important to note that not all varieties or cultivars of a given crop species have been evaluated under treatment with Dismiss CA Herbicide. Consult university or extension weed management specialists for additional information on specific local varieties or cultivars and any other pertinent information on Dismiss CA Herbicide under specific local conditions.

Use Restrictions
Do not apply more than 8.0 fluid ounces (0.25 lb active) per twelve-month period. The twelve-month period is considered to begin upon the initial Dismiss CA Herbicide application.

Do not use on soils classified as sand, which have less than 1% organic matter.

Do not apply to frozen soils or existing snow cover to prevent Dismiss CA Herbicide runoff from rain or snowmelt that may occur following application.

PEANUTS (22.0)

Apply Dismiss CA Herbicide alone or in combination with other registered herbicides for the control of key grass and broadleaf weeds in peanut production. Refer to the information below for specific use directions.

Application Instructions
Dismiss CA Herbicide may be preplant incorporated (to a depth no greater than 2 inches) up to 14 days prior to planting. Alternatively, Dismiss CA Herbicide may be applied to the soil surface at planting, or within 12 hours after planting. Incorporation of Dismiss CA Herbicide deeper than 2 inches can result in adverse crop response and/or inconsistent weed control. Do not use Dismiss CA Herbicide for "at-crack" type applications or apply to exposed peanut tissue. Such use can result in significant adverse crop response. For optimum performance, a combination of Dismiss CA Herbicide plus a grass herbicide labeled for peanuts is recommended. Under conditions of exceptionally high weed populations or when weeds not controlled by Dismiss CA Herbicide are anticipated, the use of suitable post-emergent peanut herbicides is recommended. Broadcast apply the correct Dismiss CA Herbicide use rate from Table 8 below, in a minimum of 10 gallons of water per acre of finished spray. Banded Dismiss CA Herbicide application rates must be adjusted in proportion to the broadcast rate.

Dismiss CA Herbicide Use Rates and Weeds Controlled in Coarse Soils[1]

Table 8
When applied, as directed, at 4.8 fluid ounces (0.15 pound active ingredient) per acre, Dismiss CA Herbicide will provide:
Control of the listed weeds.

Amaranth, spleen	Jimsonweed
Copperleaf, hophornbeam	Lambsquarters, common
Croton, tropic	Morningglory, entireleaf
Crownbeard, golden	Morningglory, red
Devilsclaw	

When applied, as directed, at 6.4 fluid ounces (0.2... ...und active ingredient) per acre, Dismiss CA Herb... ... will provide:
Control of the listed weeds.

All the weeds controlled at 4.8 fl. ozs. plus:	
Amaranthus, Palmer	Morningglory, smallflower
Crabgrass, large	Poinsettia, wild [2]
Crabgrass, Southern	Redweed
Eclipta	Senna, coffee
Goosegrass	Signalgrass, broadleaf
Morningglory, pitted	Smartweed, PA (seedling)

When applied, as directed, at 8.0 fluid ounces (0.25 pound active ingredient) per acre, Dismiss CA Herbicide will provide:
Control of the listed weeds.

All the weeds controlled at 6.4 fl. ozs. plus:	
Anoda, spurred	Purslane, common
Cocklebur, common	Sida, prickly
Nutsedge, yellow	Starbur, prickly
Nutsedge, purple [3]	

[1]Use rates are Dismiss CA Herbicide fluid ounces per acre. Specified weeds are controlled in coarse (sand and loamy sand) soils. Medium and fine soils (sandy loam, clay loam, clay) or soils with organic matter greater than 1.0% should use the next higher rate in Table 8 above. The next higher rate for 8.0 fluid ounces (0.25 lb ai) should not exceed 9.6 fluid ounces (0.3 lb ai) per acre.

[2] Controls initial and several continuing flushes (germinations) of wild poinsettia.

[3] Purple nutsedge activity is based on preplant incorporated applications of Dismiss CA Herbicide. Pre-emergence surface applications may provide control (>85%) under certain circumstances. Otherwise, purple nutsedge will be partially controlled (71 to 84%).

In soils with pH greater than 7, use the next lower Dismiss CA Herbicide application rate. Irrigation with alkaline (pH 8 to 9) water can result in adverse crop response. The extent of crop response is dependent on Dismiss CA Herbicide application rate, soil type (including %OM and pH), timing (after Dismiss CA application relative to crop emergence), amount and pH of irrigation water. Do not irrigate with water greater than pH 9.

After peanuts are established (4" to 6" across in size), the alkalinity of irrigation water has minimal impact on crop growth.

For information on other weeds not listed above, refer to Weed Controlled section (Table 5) in this label.

Precautions
These Crop Specific Use directions are based upon the interactive effects of Dismiss CA Herbicide (sulfen trazone) and the primary soil and environmental factors, which affect its activity on various weed species and tolerance among crops. The user is required to observe the instructions and guidance previously presented under General Application Instructions, General Dismiss CA Herbicide Product Use Rates, Rotational Crop Guidelines, Replanting Instructions, Weed Controlled and any other section of this label pertinent to the anticipated crop use. It is important to note that not all varieties or cultivars of a given crop species have been evaluated under treatment with Dismiss CA Herbicide. Consult university or extension weed management specialists for additional information on specific local varieties or cultivars and any other pertinent information on Dismiss CA Herbicide under specific local conditions.

Restrictions
Do not apply more than 9.6 fluid ounces (0.3 lb ai) of Dismiss CA Herbicide per acre per twelve-month period. The twelve-month period is considered to begin upon the initial Dismiss CA application.

Do not feed treated peanut forage or peanut hay to livestock.

Do not use on soils classified as sand, which have less than 1% organic matter.

Do not irrigate with water having a pH higher than 9.

Do not apply at cracking time.

POTATOES (23.0)

Table 9

Dismiss CA Herbicide Use Rate Table (Potatoes) Preemergence Application			
Broadcast Rate	**Fluid Ounces Dismiss CA per acre**		
	Soil Texture		
% Organic Matter	**Coarse**	**Medium**	**Fine**
<1.5	3.0 – 4.5	3.0 – 4.5	3.75 – 5.25
1.5-3.0	3.0 – 4.5	3.75 – 6.0	4.5 – 6.0
>3	4.5 – 6.0	5.25 – 6.75	6.0 – 8.0
*Refer to the previous information on soil types under the COARSE, MEDIUM, and FINE categories Use higher rates for soils of pH less than 7.0 and lower rates for pH greater than 7.0 within the rate range.			

Ground and Aerial Applications (23.1)
Apply Dismiss CA Herbicide by aerial application as a preemergence treatment following planting and after dragoff, but prior to potato emergence. Optimum performance can be achieved if Dismiss CA Herbicide is applied to the soil surface and either rainfall or overhead irrigation is used to activate the product. If no moisture is received within 7 days following application in areas without irrigation, a shallow incorporation (less than 2 inches) may be needed prior to weed and potato emergence to activate the product. Select the appropriate use rate based on soil texture and organic matter as shown in Table 9 above. For control of emerged weeds at the time of the Dismiss CA application, an appropriate burndown herbicide and adjuvants labeled for potatoes may be tankmixed with Dismiss CA to control these weeds. Do not apply Dismiss CA Herbicide if the potatoes have emerged from the soil as undesirable crop response may occur. Dismiss CA Herbicide may be tankmixed with other soil-applied herbicides labeled for use in potatoes to improve weed management and increase weed control spectrum.

Apply Dismiss CA Herbicide in a minimum of 10 gallons of spray by ground application and 5 gallons of spray by air.

Chemigation Applications (23.2)
Dismiss CA Herbicide may be applied to potatoes through sprinkler irrigation systems including center pivot, lateral move, end tow, solid set or hand move irrigation systems. Apply Dismiss CA Herbicide prior to potato emergence using sufficient water (0.25 to 0.5 inch per acre) to provide thorough soil surface coverage, but to avoid runoff of irrigation water. Dismiss CA Herbicide may be applied with other products labeled for chemigation use in potatoes.

It is important to note that irrigation with highly alkaline water (high pH) following a Dismiss CA Herbicide soil application may significantly increase the amount of sulfentrazone available in soil solution. Irrigation with water having a pH greater than 7.5 could result in adverse crop response. This response

will ultimately depend on initial Dismiss CA Herbicide application rate, application timing, amount and pH of irrigation water; the sensitivity of the crop and the crop growth stage when irrigated. The risk of adverse crop response will lessen with advances in the crop growth stage.

Weeds Controlled
When applied according to directions, Dismiss CA Herbicide will provide control of:

Amaranth, Palmer	Nightshade, Eastern black
Filaree, redstem	Pigweed, redroot
Kochia (ALS and Triazine Resistant)	Pigweed, smooth
Lambsquarters, common	Thistle, Russian
Morningglory, ivyleaf	Waterhemp, common
Morningglory, tall	Waterhemp, tall

For information on other weeds not listed above, refer to Weed Controlled section (Table 5) in this label.

Precautions
Potato varieties may vary in their response to herbicide applications. When using Dismiss CA Herbicide on an untested variety, always determine the crop tolerance before planting. Some potato varieties, including Sangre, Shepody and Snowden, have shown sensitivity to Dismiss CA Herbicide. Caution should be used when planting these varieties on marginal coarse soils.

These Crop Specific Use directions are based upon the interactive effects of Dismiss CA Herbicide (sulfen trazone) and the primary soil and environmental factors, which affect its activity on various weed species and tolerance among crops. The user is required to observe the instructions and guidance previously presented under General Application Instructions, General Dismiss CA Herbicide Product Use Rates, Rotational Crop Guidelines, Replanting Instructions, Weed Controlled and any other section of this label pertinent to the anticipated crop use. It is important to note that not all varieties or cultivars of a given crop species have been evaluated under treatment with Dismiss CA Herbicide. Consult university or extension weed management specialists for additional information on specific local varieties or cultivars and any other pertinent information on Dismiss CA Herbicide under specific local conditions.

Restrictions
Do not use on soils classified as sand, which have less than 1% organic matter.

Do not apply Dismiss CA Herbicide after potato emergence from the soil as undesirable crop response may occur.

Do not apply more than 8.0 fluid ounces (0.25 pound active) per acre per twelve-month period. The twelve-month period is considered to begin upon the initial Dismiss CA application.

SOYBEANS (24.0)

Table 10

Dismiss CA Herbicide Use Rate Table (Soybeans)
Fall, Spring Early Preplant, Preemergence, and Preplant Incorporated Applications

Broadcast Rate	Fluid Ounces Dismiss CA Herbicide per acre		
	Soil Texture		
% Organic Matter	Coarse	Medium	Fine
<1.5	4.5 – 6.0	6.0 – 8.0	8.0
1.5-3	6.0 – 8.0	8.0 – 10.1	10.1
>3	8.0 – 10.1	10.1 – 12.0	12.0
Refer to the previous information on soil types under the COARSE, MEDIUM, and FINE categories Use higher rates for soils of pH less than 7.0 and lower rates for pH greater than 7.0 within the rate range.			

Ground and Aerial Applications (24.1)
Apply Dismiss CA Herbicide in conventional tillage, conservation tillage, reduced tillage or no-tillage cropping systems using rates recommended in the Dismiss CA Herbicide Use Rate Table 10. Dismiss CA Herbicide may be applied with ground or aerial sprayers calibrated to deliver a minimum of 10 gallons of finished spray by ground application and 5 gallons of finished spray by air. Use nozzle types and arrangements that will provide optimum coverage while producing a minimal amount of fine droplets. Apply sufficient spray volume to achieve adequate coverage.

Preplant Incorporated and Preemergence Applications (24.2)
Dismiss CA Herbicide can be applied prior to planting or up to 3 days after planting. When applications after planting are delayed greater than 3 days after planting, injury may occur if seeds are germinating. Dismiss CA Herbicide may be applied preemergence or preplant incorporated. For preplant incorporated applications, incorporation must be uniform and no deeper than 2 inches. Improper soil incorporation may result in erratic weed control and/or crop injury. Dismiss CA Herbicide applied near or after crop emergence may cause severe injury to the crop. Dismiss CA Herbicide can be applied alone or in combination with other labeled soybean herbicides. Dismiss CA Herbicide may be followed by labeled postemergence soybean herbicides for increased control of grass and broadleaf weeds. Always follow the most restrictive label when tank mixing. When using Dismiss CA Herbicide in no-till or minimum till cropping systems, tank mix with an appropriate burndown herbicide for improved control of existing weeds.

Fall Applications (24.3)
Dismiss CA Herbicide may be applied as a fall treatment to the stubble of harvested crops for the burndown of existing vegetation and preemergence control of labeled weeds the following spring in no-till and conservation tillage production systems. Fall applications of Dismiss CA Herbicide must be made in weed control programs that include, as needed, spring applications of preplant, preemergence or postemergence herbicides for the following crop season. Dismiss CA Herbicide can be applied to the stubble of a harvested crop in no-till or to the soil surface of conservation tillage fields after harvest when the sustained soil temperature is 55 degrees F and falling at a soil depth of 4 inches. Apply after September 30 in those areas North of Interstate 90 and after October 15 in those areas North of Interstate 70. Do not apply Dismiss CA Herbicide as a fall treatment South of Interstate 70. Applications to ridge till production systems must be made after the formation of ridges or bedded.

If weeds are emerged at the time of application, utilize a tank mixture with a suitable burndown herbicide at labeled rates. Fall applied burndown treatments should be made with a minimum of 20 gallons per acre to achieve adequate coverage of the weeds being treated. When making burndown applications to emerged weeds, the addition of adjuvants such as COC or MSO to the spray mixture can be used to enhance the burndown activity of the application.

Weeds Controlled
When Applied according to directions, Dismiss CA Herbicide will provide control of:

Amaranth, Palmer	Nightshade
Copperleaf, hophornbeam	Pigweed, spp.
Kochia (ALS and Triazine Resistant)	Sida, prickly

Lambsquarters, common	Thistle, Rus
Morningglory, spp.	Waterhemp, spp.

For information on other weeds not listed above, refer to Weed Controlled section (Table 5) in this label.

Precautions
When applying Dismiss CA Herbicide with other registered herbicides, refer to specific label information on precautions, instructions, limitations, application methods and timings, and weeds controlled.

Dismiss CA Herbicide is especially effective against a wide range of economic broadleaf and grass weeds. The same processes that sulfentrazone affects in these weeds can, under certain conditions, be affected in soybeans. These conditions include high pH (7.5 and above), cool weather, prolonged and excessive moisture, seedling diseases, and any other condition, including poor agronomic practices, that are unfavorable to vigorous crop growth. Such effects in soybeans are often observed as stunting and discoloration. The duration of these effects are somewhat dependent on the duration of the adverse growing conditions. These effects lessen and generally diminish with the return to normal growing conditions.

These Crop Specific Use directions are based upon the interactive effects of Dismiss CA Herbicide (sulfen trazone) and the primary soil and environmental factors, which affect its activity on various weed species and tolerance among crops. The user is required to observe the instructions and guidance previously presented under General Application Instructions, General Dismiss CA Herbicide Product Use Rates, Rotational Crop Guidelines, Replanting Instructions, Weed Controlled and any other section of this label pertinent to the anticipated crop use. It is important to note that not all varieties or cultivars of a given crop species have been evaluated under treatment with Dismiss CA Herbicide. Consult university or extension weed management specialists for additional information on specific local varieties or cultivars and any other pertinent information on Dismiss CA Herbicide under specific local conditions.

Restrictions
Do not apply more than 12.0 fluid ounces (0.375 lbs active) per acre of Dismiss CA Herbicide per twelve-month period. The twelve-month period is considered to begin upon the initial Dismiss CA Herbicide application.

Do not use on soils classified as sand, which have less than 1% organic matter.

Do not apply to frozen soils or existing snow cover to prevent Dismiss CA Herbicide runoff from rain or snowmelt that may occur following application.

Do not apply after crop seed germination.

SUGARCANE (25.0)

Table 11

Dismiss CA Herbicide Use Rate Table (Sugarcane)
Planting Time and Lay-by Applications

Broadcast Rate	Fluid Ounces Dismiss CA Herbicide per acre		
	Soil Texture		
% Organic Matter	Coarse	Medium	Fine
<1.5	4.5 – 6.0	6.0 – 8.0	8.0
1.5-3	6.0 – 8.3	8.0 – 10.1	10.1
>3	8.0 – 10.1	10.1 – 12.0	12.0

Refer to the previous information on soil types under the COARSE, MEDIUM, and FINE categories
Use higher rates for soils of pH less than 7.0 and lower rates for pH greater than 7.0 within the rate range.

Apply Dismiss CA Herbicide as a broadcast or banded preemerge soil applied treatment for the control of broadleaf weeds, grasses and sedges in sugarcane. Refer to the Dismiss CA Herbicide Product Use Rate Section and Table 11 for specific use information.

Planting Time Applications (25.1)
Apply Dismiss CA Herbicide preemerge to newly planted or ratoon sugarcane. Use the higher rate on clay soils and/or soils with organic matter content higher than 2 percent. Apply either by air in a minimum of 5 gallons of spray per acre or by ground equipment in a minimum of 15 gallons of spray per acre. Dismiss CA Herbicide may be applied with other herbicides registered for use in sugarcane.

Aerial Applications (25.2)
Dismiss CA Herbicide may be applied by air in a minimum of 5 gallons of finished spray per acre. Dismiss CA Herbicide may be applied with other herbicides or insecticides registered for aerial application in sugarcane.

Lay-by Applications (25.3)
Apply Dismiss CA Herbicide as a directed spray to sugarcane at lay-by timing. Use the higher rate on clay soils and/or soils with organic matter content higher than 2 percent. Apply as a directed spray with ground equipment in a minimum of 15 gallons of spray per acre. Dismiss CA Herbicide may be applied with other herbicides registered for use in sugarcane.

Weeds Controlled
When applied according to directions, Dismiss CA Herbicide will provide control of:

Morningglory, entireleaf	Morningglory, tall
Morningglory, ivyleaf	Pigweed, red root
Morningglory, red	Nutsedge, yellow

For information on other weeds not listed above, refer to Weed Controlled section (Table 5) in this label.

Precautions
These Crop Specific Use directions are based upon the interactive effects of Dismiss CA Herbicide (sulfen trazone) and the primary soil and environmental factors, which affect its activity on various weed species and tolerance among crops. The user is required to observe the instructions and guidance previously presented under General Application Instructions, General Dismiss CA Herbicide Product Use Rates, Rotational Crop Guidelines, Replanting Instructions, Weed Controlled and any other section of this label pertinent to the anticipated crop use. It is important to note that not all varieties or cultivars of a given crop species have been evaluated under treatment with Dismiss CA Herbicide. Consult university or extension weed management specialists for additional information on specific local varieties or cultivars and any other pertinent information on Dismiss CA Herbicide under specific local conditions.

Restrictions
Do not apply within 120 days of harvest.

Do not use on soils classified as sand, which have less than 1% organic matter.

Do not allow spray to contact crop leaves.

Do not apply more than 12.0 fluid ounces (0.375 lb active) per acre of Dismiss CA Herbicide per acre per twelve-month period. The twelve-month period is considered to begin upon the initial Dismiss CA Herbicide application.

SUNFLOWERS (26.0)

Table 12

Dismiss CA Herbicide Use Rate Table (Sunflowers) Fall, Early Spring Preplant, Preemergence, and Preplant Incorporated Applications			
Broadcast Rate	**Fluid Ounces Dismiss CA Herbicide per acre**		
	Soil Texture		
% Organic Matter	**Coarse**	**Medium**	**Fine**
<1.5	3.0 - 3.75	3.0 – 4.5	3.75 – 5.25
1.5-3.0	3.0 – 4.5	3.75 – 6.0	4.5 – 6.75
>3	3.75 – 6.0	4.5 – 6.75	6.0 – 8.0
Refer to the previous information on soil types under the COARSE, MEDIUM, and FINE categories Use higher rates for soils of pH less than 7.0 and lower rates for pH greater than 7.0 within the rate range.			

Fall Applications (26.1)

Dismiss CA Herbicide may be applied in the fall as a preplant treatment to control or suppress weeds prior to planting sunflowers the following spring. Dismiss CA Herbicide should be applied to the stubble or soil surface and allow moisture from rainfall or snow to move the product into the soil. Do not mechanically incorporate in the fall or spring as this can destroy the herbicide barrier and allowing weed escapes to occur. Do not apply to frozen soils or to existing snow cover to prevent Dismiss CA Herbicide runoff from rain or snow melt that may occur following application. Dismiss CA Herbicide may be tank mixed with other residual soil herbicides that are labeled for fall use on sunflowers. If weeds are emerged at the time of Dismiss CA Herbicide application, use a burndown herbicide such as glyphosate or paraquat at the full-labeled rate in combination with Dismiss CA Herbicide or split application as needed. Select the appropriate rate from Table 12 above within the correct soil type and organic matter range. When applying Dismiss CA Herbicide in the fall, use a mid to high rate within the rate range for the appropriate soil type and organic matter.

Early Preplant and Preemergence (Spring Applications) (26.2)

Dismiss CA Herbicide may be applied preplant on the soil surface in the spring to control weeds in sunflowers. Dismiss CA Herbicide can be applied early preplant prior to planting up to 3 days after planting as a preemerge soil application if seedlings have not broken the soil surface and if the seed furrow is completely closed. For preemerge applications greater than 3 weeks prior to planting, use the high rate within the appropriate rate range for the soil and organic matter type listed in the use rate chart above (Table 12). Dismiss CA Herbicide can be tank mixed with other preemerge herbicides labeled for sunflower use. If dry conditions persist following preemerge application of Dismiss CA Herbicide, a shallow incorporation may be needed to incorporate and activate the herbicide. If weeds are emerged at the time of Dismiss CA Herbicide application, use a burndown herbicide at the full-labeled rate in combination with Dismiss CA Herbicide or split application as needed.

Preplant Incorporated (PPI) (26.3)

Dismiss CA Herbicide may be applied as a Preplant Incorporated treatment in the spring prior to planting in reduced and conventional tillage sunflowers. Dismiss CA Herbicide should be shallowly incorporated in the soil no deeper than 2 inches. Incorporating Dismiss CA Herbicide deeper than 2 inches can result in inconsistent weed control. Use the appropriate rate from Table 9 above for the soil texture, organic matter, and pH level. Dismiss CA Herbicide can be tankmixed with other soil-applied herbicides labeled for preplant incorporation in sunflowers.

Weeds Controlled

When applied according to directions, Dismiss CA Herbicide will provide control of:

Amaranth, Palmer	Pigweed, red root
Filaree, redstem	Pigweed, smooth
Kochia (ALS and Triazine Resistant)	Sida, prickly
Lambsquarters, common	Thistle, Russian
Morningglory, ivyleaf	Waterhemp, common
Morningglory, tall	Waterhemp, tall
Nightshade, Eastern black	

For information on other weeds not listed above, refer to Weed Controlled section (Table 5) in this label.

Precautions

When applying Dismiss CA Herbicide to coarse textured soils, it is recommended that growers allow a minimum of 7-14 days from application to planting. Best results are achieved with Dismiss CA Herbicide when applications are made early preplant and greater than 14 days before planting.

Some adverse crop response may occur on coarse textured soils with low organic matter (less than 1.5%) and pH of 7.8 or higher, or on highly eroded soils, or in areas of calcareous outcroppings. Dismiss CA Herbicide use rates should be reduced in those areas. Inadequate seed furrow closure or shallow planting (less than 1.0 inch) may result in undesirable crop response. As expected, poor growing conditions such as excessive moisture, low temperatures, soil compaction and diseases may also cause undesirable crop response.

These Crop Specific Use directions are based upon the interactive effects of Dismiss CA Herbicide (sulfen trazone) and the primary soil and environmental factors, which affect its activity on various weed species and tolerance among crops. The user is required to observe the instructions and guidance previously presented under General Application Instructions, General Dismiss CA Herbicide Product Use Rates, Rotational Crop Guidelines, Replanting Instructions, Weed Controlled and any other section of this label pertinent to the anticipated crop use. It is important to note that not all varieties or cultivars of a given crop species have been evaluated under treatment with Dismiss CA Herbicide. Consult university or extension weed management specialists for additional information on specific local varieties or cultivars and any other pertinent information on Dismiss CA Herbicide under specific local conditions.

Restrictions

Do not apply more than 8.0 fluid ounces (0.25 pound active) of Dismiss CA Herbicide per twelve-month period to sunflowers. The twelve-month period is considered to begin upon the initial Dismiss CA Herbicide application.

Do not apply to frozen soils or existing snow cover to prevent Dismiss CA Herbicide runoff from rain or snowmelt that may occur following application.

Do not use on soils classified as sand, which have less than 1% organic matter.

Do not incorporate greater than 2 inches deep.

TOBACCO (Burley, Flue-Cured and Dark) (27.0)

Table 13

Dismiss CA Herbicide Use Rate Table (Tobacco) Preemergence and Preplant Incorporated Applications

Broadcast Rate	Fluid Ounces Dismiss CA per acre		
	Soil Texture		
% Organic Matter	Coarse	Medium	Fine
<1.5	4.5 – 6.0	6.0 – 8.0	8.0
1.5-3	6.0 – 8.0	8.0 – 10.1	10.1
>3	8.0 – 10.1	10.1 – 12.0	12.0
Refer to the previous information on soil types under the COARSE, MEDIUM, and FINE categories Use higher rates for soils of pH less than 7.0 and lower rates for pH greater than 7.0 within the rate range.			

Dismiss CA Herbicide may be surface applied or preplant incorporated (to a depth no greater than 2 inches) from 14 days to 12 hours days prior to transplanting tobacco. Incorporating Dismiss CA Herbicide deeper than 2 inches can result in inconsistent weed control.

Broadcast apply the appropriate Dismiss CA Herbicide rate from Table 14 above, in a minimum of 10 gallons per acre of water, to the soil prior to transplanting.

Non-Bedded (Fields where raised beds are NOT formed prior to transplanting) (27.1)
Perform all accepted cultural practices for land preparation, fertilizer/fungicide incorporation, etc. prior to the application of Dismiss CA Herbicide. Once the field has been prepared for planting, Dismiss CA Herbicide may be surface applied or lightly preplant incorporated from 14 days to 12 hours prior to transplanting.

If Dismiss CA Herbicide is surface applied and it is necessary to remove equipment tracks from the field after application but prior to transplanting, any light finishing equipment may be used providing the soil is not disturbed to a depth greater than 2 inches.

If timely cultivations are not performed following a pre-transplant surface application, reduced/unacceptable weed control may occur in the drill.

Bedded (Fields where raised beds ARE formed PRIOR to transplanting) (27.2)
Apply Dismiss CA Herbicide to formed beds as a surface application from 14 days to 12 hours prior to transplanting. If it is customary to drag/knock down beds prior to transplanting, this procedure must be performed prior to the Dismiss CA Herbicide application.

When incorporating prior to bedding, Dismiss CA Herbicide must be thoroughly and uniformly incorporated to a depth no greater than 2 inches to avoid concentrating Dismiss CA Herbicide in the bed.

If initial transplanting fails to produce a uniform stand, tobacco may be replanted. DO NOT re-treat field with a second application of Dismiss CA Herbicide, or any other herbicide containing sulfentrazone. DO NOT re-bed. Re-transplant into previously formed, treated beds.

For broad spectrum and optimum grass weed control a grass herbicide application will be required.

Weeds Controlled
When Applied according to directions, Dismiss CA Herbicide will provide control of:

Amaranthus, livid	Pigweed, redroot
Filaree, redstem	Pigweed, smooth
Galinsoga, hairy	Sida, prickly
Lambsquarters, common	Signalgrass, broadleaf
Morningglory, ivyleaf	Smartweed, Pennsylvania
Morningglory, tall	

For information on other weeds not listed above, refer to Weed Controlled section (Table 5) in this label.

Precautions
Poor agronomic practices, unfavorable pH soils, diseases, cold weather, excessive moisture, drought or other conditions unfavorable to normal plant growth may adversely effect the growth of tobacco transplants. Weakened transplants may be more susceptible to herbicide response and diseases, particularly under poor drainage or compacted soil conditions or when the soil has been saturated for long periods of time. Contact your State Agricultural Extension Service Specialist for consultation as to the agronomic recommendations suited for your tobacco varieties and local conditions. Temporary stunting of tobacco may occur if transplants are set too shallowly, or if heavy rainfall occurs immediately following transplanting. Splashing of treated soil onto tobacco leaves may cause some localized and inconsequential necrosis. Use sound transplanting practices that insure treated soil will not wash or crust over tobacco plants.

These Crop Specific Use directions are based upon the interactive effects of Dismiss CA (sulfentrazone) and the primary soil and environmental factors, which affect its activity on various weed species and tolerance among crops. The user is required to observe the instructions and guidance previously presented under General Application Instructions, General Dismiss CA Product Use Rates, Rotational Crop Guidelines, Replanting Instructions, Weed Controlled and any other section of this label pertinent to the anticipated crop use. It is important to note that not all varieties or cultivars of a given crop species have been evaluated under treatment with Dismiss CA Herbicide. Consult university or extension weed management specialists for additional information on specific local varieties or cultivars and any other pertinent information on Dismiss CA Herbicide under specific local conditions.

Restrictions
Do not use on Shade Grown Tobacco

Do not apply Dismiss CA Herbicide to soils classified as sands containing less than 1% organic matter.

Do not use Dismiss CA Herbicide in tobacco seeding beds or greenhouses.

Do not apply Dismiss CA Herbicide post-transplant as unacceptable injury may occur.

Do not perform tillage practices that concentrate Dismiss CA Herbicide into the bed or crop injury may occur.

Do not apply more than 12.0 fluid ounces (0.375 lbs active) per acre of Dismiss CA Herbicide per acre per twelve-month period. The twelve-month period is considered to begin upon the initial Dismiss CA application.

Do not incorporate greater than 2 inches deep.

VEGETABLE CROPS

Before applying Dismiss CA Herbicide to vegetable crops, users, producers, and/or applicators must read and follow the information presented in the Conditions of Sale and Limitation of Warranty and Liability section on page 3 of this label.

ASPARAGUS (28.0)

Table 14

Dismiss CA Herbicide Use Rate Table (Asparagus) Spring Preemergence Applications			
Broadcast Rate	Fluid Ounces Dismiss CA Herbicide per acre		
	Soil Texture		
% Organic Matter	Coarse	Medium	Fine
<1.5	4.5 – 6.0	6.0 – 8.0	8.0
1.5-3	6.0 – 8.0	8.0 – 10.1	10.1
>3.0	8.0 – 10.1	10.1 – 12.0	12.0
Refer to the use rate information on soil types under the COARSE, MEDIUM, and FINE categories.			

Use higher rates for soils of pH less than 7.0 and lower rates for pH greater than 7.0 within the rate range.

Apply Dismiss CA Herbicide as a broadcast treatment to crowns established for one or more years.

Apply in the spring before the crop and weeds emerge. Dismiss CA Herbicide should be applied at 4.5 to 12 fluid ounces (0.141 to 0.375 pound active) per acre in 10 to 40 gallons of finished spray per acre. Dismiss CA Herbicide may be applied with other pesticides registered for use with asparagus.

Weeds Controlled
When Applied according to directions, Dismiss CA Herbicide will provide control of :

Amaranth, Palmer	Nightshade, Eastern black
Galinsoga, hairy	Nutsedge, yellow
Lambsquarters, common	Pigweed, redroot
Morningglory, ivyleaf	Pigweed, smooth

For information on other weeds not listed above, refer to Weed Controlled section (Table 5) in this label.

Precautions
These Crop Specific Use directions are based upon the interactive effects of Dismiss CA Herbicide (sulfen trazone) and the primary soil and environmental factors, which affect its activity on various weed species and tolerance among crops. The user is required to observe the instructions and guidance previously presented under General Application Instructions, General Dismiss CA Herbicide Product Use Rates, Rotational Crop Guidelines, Replanting Instructions, Weed Controlled and any other section of this label pertinent to the anticipated crop use. It is important to note that not all varieties or cultivars of a given crop species have been evaluated under treatment with Dismiss CA Herbicide. Consult university or extension weed management specialists for additional information on specific local varieties or cultivars and any other pertinent information on Dismiss CA Herbicide under specific local conditions.

Restrictions
Do not apply within 14 days prior to harvest.

Do not apply more than 12.0 fluid ounces (0.375 pound active) per acre per 12-month period.

Do not make more than one Dismiss CA Herbicide application per acre per 12-month period. The twelve-month period is considered to begin upon the initial Dismiss CA Herbicide application.

Do not use on soils classified as sand, which have less than 1% organic matter.

CABBAGE (Transplanted Only) (29.0)

Table 15

Dismiss CA Herbicide Use Rate Table (Cabbage) Fall or Spring Early Preplant, Preemergence, and Preplant Incorporated Applications			
Broadcast Rate	**Fluid Ounces Dismiss CA Herbicide per acre**		
	Soil Texture		
% Organic Matter	**Coarse**	**Medium**	**Fine**
<1.5%	2.25 – 3.0	3.0 – 4.5	3.0 – 6.0
1.5-3.0 %	3.0 – 6.0	6.0 – 9.0	6.0 – 9.0
>3.0 %	6.0 – 9.0	6.0 – 12.0	6.0 – 12.0
Refer to the previous information on soil types under the COARSE, MEDIUM, and FINE categories. Use higher rates for soils of pH less than 7.0 and lower rates for pH greater than 7.0 within the rate range.			

Early Preplant (Fall Application or Spring Application) (29.1)
Dismiss CA Herbicide may be applied in the fall or spring preceding the growing season to control weeds prior to or up to the planting or transplanting of cabbage. Dismiss CA Herbicide may be applied in the spring from 60 days prior to planting up to planting time. Dismiss CA Herbicide should be applied to the harvested crop stubble or soil surface without incorporation. Moisture in the form of rain or snow will move and activate the product into the soil. Do not mechanically incorporate in the fall or spring after application as this may destroy the herbicide barrier and weed escapes can occur. Do not apply to frozen soils to prevent Dismiss CA Herbicide runoff from rain or snow that may occur following application. Dismiss CA Herbicide may be tankmixed with other burndown herbicides to control emerged weeds in the fall or spring or with residual soil herbicides that are labeled for fall use on cabbage. Use the full, recommended rates of burndown herbicides in combination with Dismiss CA Herbicide, or split applications as needed. Observe all precautions, instructions, and rotational cropping guidelines of each product's label when tank mixing, including all references to potential carryover and crop injury warnings or restrictions.

Preplant Incorporated (PPI) (29.2)
Dismiss CA Herbicide may be applied as a preplant incorporated treatment in the spring prior to transplanting of cabbage. Do not incorporate to depths greater than 2 inches. Dismiss CA Herbicide can be tankmixed with other burndown or soil-applied herbicides labeled for use in cabbage. Use the full, recommended rates of burndown herbicides or split applications as needed. Observe all precautions, instructions and rotational cropping guidelines of each product's label when tank mixing including all references to potential carryover and crop injury warnings or restrictions.

Transplant Cabbage (29.3)
Dismiss CA Herbicide may be applied pre-emergence as a broadcast or banded treatment to transplanted cabbage only. Applications should be made broadcast or banded treatment prior to transplanting. Dismiss CA Herbicide may be applied as a banded treatment into the row middles within 72 hours after transplanting.

Weeds Controlled
When Applied according to directions, Dismiss CA Herbicide will provide control of:

Galinsoga, hairy	Waterhemp, common
Lambsquarters, common	Waterhemp, tall
Pigweed, redroot	

For information on other weeds not listed above, refer to Weed Controlled section (Table 5) in this label.

Precautions
These Crop Specific Use directions are based upon the interactive effects of Dismiss CA Herbicide (sulfen trazone) and the primary soil and environmental factors, which affect its activity on various weed species and tolerance among crops. The user is required to observe the instructions and guidance previously presented under General Application Instructions, General Dismiss CA Herbicide Product Use Rates, Rotational Crop Guidelines, Replanting Instructions, Weed Controlled and any other section of this label pertinent to the anticipated crop use. It is important to note that not all varieties or cultivars of a given crop species have been evaluated under treatment with Dismiss CA Herbicide. Consult university or extension weed

management specialists for additional information on specific local varieties or cultivars and any other pertinent information on Dismiss CA Herbicide under specific local conditions.

Restrictions

Do not apply more than 12 fluid ounces (0.375 pound active) per acre of Dismiss CA Herbicide per application or per twelve-month period. The twelve-month period is considered to begin upon the initial Dismiss CA Herbicide application.

Do not use on soils classified as sand, which have less than 1% organic matter.

Do not incorporate to depths greater than 2 inches.

DRY SHELLED BEANS AND PEAS (30.0)

Dried cultivars of bean (*Lupinus*); bean (*Phaseolus*)(includes field bean, kidney bean, lima bean (dry), navy bean, pinto bean, tepary bean); bean (*Vigna*) (includes adzuki bean, blackeyed pea, catjang, cowpea, crowder pea moth bean, lentil, mung bean, rice bean, southern pea, urd bean); broad bean (dry); chickpea; guar; lab lab bean; pea (*Pisum*) (includes field pea) and pigeon pea.

Table 16

Dismiss CA Use Rate Table (Dry Shelled Beans Peas)
Fall or Spring Early Preplant, Preemergence, and Preplant Incorporated Applications

Broadcast Rate	Fluid Ounces Dismiss CA per acre		
	Soil Texture		
% Organic Matter	Coarse	Medium	Fine
<1.5%	2.25 – 3.0	3.0 – 4.5	3.0 – 4.5
1.5-3.0 %	3.0 – 4.5.0	3.75 – 6.0	4.5 – 6.0
>3.0 %	3.75 – 6.0	4.5 – 6.75	5.25 – 8.0

Refer to the previous information on soil types under the COARSE, MEDIUM, and FINE categories
Use higher rates for soils of pH less than 7.0 and lower rates for pH greater than 7.0 within the rate range.

Early Preplant and Fall Applications (30.1)

Dismiss CA Herbicide may be applied in the fall as a preplant treatment to control or suppress weeds prior to planting the following spring. Dismiss CA Herbicide should be applied to the stubble or soil surface and allow moisture from rainfall or snow to move the product into the soil. Do not mechanically incorporate in the fall or spring as this can destroy the herbicide barrier and weed escapes can occur. Do not apply to frozen soils or to existing snow cover to prevent Dismiss CA Herbicide runoff from rain or snow melt that may occur following application. Dismiss CA Herbicide may be tank mixed with other residual soil herbicides that are labeled for fall use on dry bean and dry peas. If weeds are emerged at the time of Dismiss CA Herbicide application, use a burndown Herbicide such as glyphosate or paraquat at the full-labeled rate in combination with Dismiss CA Herbicide or split application as needed. Select the appropriate rate from Table 16 above within the correct soil type and organic matter range. When applying Dismiss CA Herbicide in the fall, use a mid to high rate within the rate range for the appropriate soil type and organic matter.

Early Preplant and Preemergence (Spring Applications) (30.2)

Dismiss CA Herbicide may be applied preplant on the soil surface in the spring to control weeds in dry bean and dry peas. Dismiss CA Herbicide can be applied early preplant prior to planting up to 3 days after planting as a preemerge soil application if seedlings have not broken the soil surface and if the seed furrow is completely closed. For preemerge applications greater than 3 weeks prior to planting, use the high rate within the appropriate rate range for the soil and organic matter type listed in the use rate chart above Table16. Dismiss CA Herbicide can be tank mixed with other preemerge herbicides labeled for dry bean and dry peas use. If dry conditions persist following preemerge application of Dismiss CA Herbicide, a shallow incorporation may be needed to incorporate and activate the herbicide. If weeds are emerged at the time of Dismiss CA Herbicide application, use a burndown herbicide at the full-labeled rate in combination with Dismiss CA Herbicide or split application as needed.

Preplant Incorporated (PPI) (30.3)

Dismiss CA Herbicide may be applied as a Preplant Incorporated treatment in the spring prior to planting in reduced and conventional tillage dry bean and dry pea. Do not incorporate to depths greater than 2 inches. Dismiss CA Herbicide use rates for PPI applications are similar to those used in preplant and preemergence applications. Dismiss CA Herbicide can be tankmixed with other burndown or soil-applied herbicides labeled for use in dry bean or dry pea. Use the full, recommended rates of burndown herbicides, or split applications as needed. Observe all precautions, instructions, and rotational cropping guidelines of each product's label when tank mixing, including all references to potential carryover and crop injury warnings or restrictions.

Weeds Controlled

When applied according to directions, Dismiss CA Herbicide will provide control of:

Amaranth, Palmer	Pigweed, red root
Filaree, redstem	Pigweed, smooth
Kochia (ALS and Triazine Resistant)	Sida, prickly
Lambsquarters, common	Thistle, Russian
Morningglory, ivyleaf	Waterhemp, common
Morningglory, tall	Waterhemp, tall
Nightshade, Eastern black	

For information on other weeds not listed above, refer to Weed Controlled section (Table 5) in this label.

Precautions

When applying Dismiss CA Herbicide to coarse textured soils, it is recommended that growers allow a minimum of 7-14 days from application to planting. Best results are achieved with Dismiss CA Herbicide when applications are made early preplant and greater than 14 days before planting. Under extended periods of dry weather, adequate weed control may not be achieved

Some adverse crop response may occur on coarse textured soils with low organic matter (less than 1.5%) and pH of 7.8 or higher, or on highly eroded soils, or in areas of calcareous outcroppings. Dismiss CA Herbicide use rates should be reduced in those areas. Inadequate seed furrow closure or shallow planting (less than 1.0 inch) may result in undesirable crop response. As expected, poor growing conditions such as excessive moisture, low temperatures, soil compaction and diseases may also cause undesirable crop response.

These Crop Specific Use directions are based upon the interactive effects of Dismiss CA Herbicide (sulfen trazone) and the primary soil and environmental factors, which affect its activity on various weed species and tolerance among crops. The user is required to observe the instructions and guidance previously presented under General Application Instructions, General Dismiss CA Herbicide Product Use Rates, Rotational Crop Guidelines, Replanting Instructions, Weed Controlled and any other section of this label pertinent to the anticipated crop use. It is important to note that not all varieties or cultivars of a given crop species have been evaluated under treatment with Dismiss CA Herbicide. Consult university or extension weed management specialists for additional information on specific local varieties or cultivars and any other pertinent information on Dismiss CA Herbicide under specific local conditions.

Restrictions
Do not apply more than 8.0 fluid ounces (0.25 pound active) total per twelve-month period. The twelve-month period is considered to begin upon the initial Dismiss CA application.

Do not apply after crop emerges, or if the seedling is close to the soil surface.

Do not incorporate to depths greater than 2 inches.

Do not apply to frozen soils or to existing snow cover to prevent Dismiss CA Herbicide runoff from rain or snow melt that may occur following application.

Do not use on soils classified as sand, which have less than 1% organic matter.

Do not use on soils classified as sand, which have less than 1% organic matter.

HORSERADISH (31.0)

Table 17

Dismiss CA Herbicide Use Rate Table (Horseradish) Fall or Spring Early Preplant, Preemergence, and Preplant Incorporated Applications			
Broadcast Rate	**Fluid Ounces Dismiss CA Herbicide per acre**		
	Soil Texture		
% Organic Matter	**Coarse**	**Medium**	**Fine**
<1.5%	2.25 – 4.5	3.0 – 4.5	3.0 – 4.5
1.5-3.0 %	4.5 – 6.0	6.0 – 8.0	6.0 – 8.0
>3.0 %	6.0 – 7.5	6.0 – 8.0	6.0 – 8.0
Refer to the previous information on soil types under the COARSE, MEDIUM, and FINE categories Use higher rates for soils of pH less than 7.0 and lower rates for pH greater than 7.0 within the rate range.			

Dismiss CA Herbicide may be applied as an preplant preemerge or preplant incorporated treatment by ground in a minimum of 15 gallons of finished spray.

Early Preplant (Fall Application or Spring Application) (31.1)
Dismiss CA Herbicide may be applied in the fall or spring preceding the growing season to control or suppress weeds prior to or up to the planting of horseradish. Dismiss CA Herbicide may be applied in the spring from 60 days prior to planting up to planting. Dismiss CA Herbicide should be applied to the harvested crop stubble or soil surface without incorporation. Moisture in the form of rain or snow will move and activate the product into the soil. Do not mechanically incorporate in the fall or spring after application as this may destroy the herbicide barrier and weed escapes may occur. Do not apply to frozen soils to prevent Dismiss CA Herbicide runoff from rain or snow that may occur following application. Dismiss CA Herbicide may be tankmixed with other burndown herbicides to control emerged weeds in the fall or spring or with residual soil herbicides that are labeled for use on horseradish. Use full, recommended rates of burndown herbicides in combination with Dismiss CA Herbicide, or split applications as needed. Observe all precautions, instructions, and rotational cropping guidelines of each product label when tank mixing, including all references to potential carryover and crop injury warnings or restrictions.

Preplant Incorporated (PPI) (31.2)
Dismiss CA Herbicide may be applied as a preplant incorporated treatment in the spring prior to planting of horseradish. Do not incorporate to depths greater than 2 inches. Dismiss CA Herbicide can be tankmixed with other burndown or soil-applied herbicides labeled for use on horseradish. Use the full, recommended rates of burndown herbicides or split applications as needed. Observe all precautions, instructions and rotational cropping guidelines of each product's label when tank mixing including all references to potential carryover and crop injury warnings or restrictions.

Pre-Emergence (PRE) (31.3)
Dismiss CA Herbicide may be applied pre-emergence as a broadcast or banded treatment on horseradish. Applications should be made broadcast prior to planting, broadcast soon after planting but at least 5 days before crop emergence. Dismiss CA Herbicide may be applied as a banded treatment into the row middles after crop emergence. Use the higher Dismiss CA Herbicide rates on clay soils and/or soils with greater than 1% organic matter. Dismiss CA Herbicide may be applied with other pesticides registered for use on horseradish.

Weeds Controlled
When applied according to directions, Dismiss CA Herbicide will provide control of:

Lambsquarters, common	Pigweed, redroot
Morningglory, ivyleaf	Waterhemp, common
Nutsedge, yellow	Waterhemp, tall

For information on other weeds not listed above, refer to Weed Controlled section (Table 5) in this label.

Precautions
These Crop Specific Use directions are based upon the interactive effects of Dismiss CA Herbicide (sulfen trazone) and the primary soil and environmental factors, which affect its activity on various weed species and tolerance among crops. The user is required to observe the instructions and guidance previously presented under General Application Instructions, General Dismiss CA Herbicide Product Use Rates, Rotational Crop Guidelines, Replanting Instructions, Weed Controlled and any other section of this label pertinent to the anticipated crop use. It is important to note that not all varieties or cultivars of a given crop species have been evaluated under treatment with Dismiss CA Herbicide. Consult university or extension weed management specialists for additional information on specific local varieties or cultivars and any other pertinent information on Dismiss CA Herbicide under specific local conditions.

Restrictions
Do not apply more than 8.0 fluid ounces (0.25 pound active) per acre of Dismiss CA Herbicide per application or per twelve-month period. The twelve-month period is considered to begin upon the initial Dismiss CA Herbicide application.

Do not apply directly on the crop after the crop emerges or if the seedling sprouts are close to the soil surface.

Do not use on soils classified as sand, which have less than 1% organic matter.

Do not incorporate to depths greater than 2 inches.

OIL CROPS

MINT (32.0)

Table 24

Dismiss CA Herbicide Use Rate Table (Mint) For Dormant and New Planting Applications			
Broadcast Rate	Fluid Ounces Dismiss CA Herbicide per acre		
	Soil Texture		
% Organic	Coarse	Medium	Fine

Matter			
<1.5%	4.5 – 6.0	6.0 – 8.0	8.0
1.5 - 3.0 %	6.0 – 8.0	8.0 – 10.1	10.1
>3.0 %	8.0 – 10.1	10.1 – 12.0	12.0
Refer to the previous information on soil types under the COARSE, MEDIUM, and FINE categories Use higher rates for soils of pH less than 7.0 and lower rates for pH greater than 7.0 within the rate range.			

Dormant Applications (32.1)
Apply Dismiss CA Herbicide to established stands of dormant mint after post harvest and/or spring land cultivation has been completed and before emergence of new mint growth.

Split applications of Dismiss CA Herbicide may be used for preemergence sequential control of winter annuals and summer annuals. Fall applications must be applied after post harvest cultivation has been completed and spring application made after spring cultivation has been completed and before emergence of new mint growth.

Apply Dismiss CA Herbicide in tank-mixtures with a registered burndown herbicide to control emerged weeds at the time of application. A surfactant is recommended with these tank mixtures to improve control of the emerged weeds.

Dismiss CA Herbicide may also be applied in tank mixtures with other products registered for use in mint.

New Planting Applications (32.2)
Dismiss CA Herbicide may be applied to new mint plantings preemergence to the weeds and mint. The rate of application should be reduced approximately twenty five percent of the rate recommended for established plantings for particular soil characteristics. Refer to Dismiss CA Herbicide Use Rate Table (Table 24) for the appropriate use rate for the soil type and organic matter content. The higher rates in the range are recommended for soils of pH less than 7.0.

Weeds Controlled
When Applied according to directions, Dismiss CA Herbicide will provide control of:

Amaranth, Powell	Nutsedge, yellow
Bedstraw, catchweed	Pigweed, redroot
Chamomile, mayweed	Sheperdspurse
Kochia (ALS and Triazine Resistant)	Toadflax, yellow
Lambsquarters, common	Thistle, Russian
Morningglory, ivyleaf	Waterhemp, common
Nightshade, Eastern black	Waterhemp, tall

For information on other weeds not listed above, refer to Weed Controlled section (Table 5) in this label.

Precautions
Applications made to mint that has emerged will result in severe injury to exposed plant tissue.

Applications are recommended only to healthy mint fields. Applications to mint under stress from disease, pests and cultural or environmental conditions may result in crop injury.

Moisture in the form of rainfall or overhead irrigation is required after application to activate the herbicide

These Crop Specific Use directions are based upon the interactive effects of Dismiss CA Herbicide (sulfen trazone) and the primary soil and environmental factors, which affect its activity on various weed species and tolerance among crops. The user is required to observe the instructions and guidance previously presented under General Application Instructions, General Dismiss CA Herbicide Product Use Rates, Rotational Crop Guidelines, Replanting Instructions, Weed Controlled and any other section of this label pertinent to the anticipated crop use. It is important to note that not all varieties or cultivars of a given crop species have been evaluated under treatment with Dismiss CA Herbicide. Consult university or extension weed management specialists for additional information on specific local varieties or cultivars and any other pertinent information on Dismiss CA Herbicide under specific local conditions.

Restrictions
Apply Dismiss CA Herbicide only to dormant mint or new mint plantings before new growth emerges.

Do not use on soils classified as sand, which have less than 1% organic matter.

Do not apply more than 12 fluid ounces (0.375 pound active) per twelve-month period. The twelve-month period is considered to begin upon the initial Dismiss CA Herbicide application.

TURF

SOD PRODUCTION (33.0)

Dismiss CA Herbicide may be applied to established seeded, sodded or sprigged turfgrasses following the second mowing for the control of key grass, sedge and broadleaf weeds. Turf grasses should have developed a good root system, a uniform stand with healthy root systems to fill in the exposed edges prior to application. Sod injury could result from application of this product on sod that is not well established or has been weakened by stresses such as unfavorable weather conditions, diseases, chemical, recent harvesting or mechanical influences.

Turf Grass Tolerance
When applied as directed, the following established turf grasses are tolerant to Dismiss CA Herbicide at the recommended use rates.

Table 25 Tolerant grasses

Grass Type	Maximum Use Rate For Single Application	
Cool Season Grasses **	Fluid Ounces Dismiss CA Herbicide Per Acre	Pound Active Ingredient Per Acre
Bentgrass, creeping	4	0.125
Fescue, fine * (Festuca rubra) Fescue, tall * (Festuca arundinacea) Ryegrass, perennial (Lolium perenne Bluegrass, Kentucky (Poa pratensis) Bluegrass, Rough (Poa trivialis)	4-8	0.125- 0.25
Warm Season Grasses **		
Bahiagrass (Paspalum notatum) Buffalograss (Buchloe dactyloides) Carpetgrass (Axonopus affinis) Centipedegrass (Eremochloa ophuioides) Kikuyugrass (Pennisetum clandestinum)	8-12	0.25-0.375

Seashore Paspalum (Paspalum vaginatum) Zoysiagrass (Zoysia japonica) Bermudagrass (Cynadon dactylon) Bermudagrass Hybrids (Cyn Bluegrass, St. Augustinegrass (Stenotaphrum secundatum)		

* Applications of Dismiss CA Herbicide to certain varieties of Chewings Fine Fescue or Tall Fescue may result in undesirable plant response.

** It is important to note that not all varieties or cultivars have been evaluated under treatment with Dismiss CA Herbicide. Consult university or extension weed management specialists for additional information on specific local varieties or cultivars and any other pertinent information on Dismiss CA Herbicide under specific local conditions.

Applications to Reseeded, Overseeded or Sprigged Areas
Reseeding, overseeding or sprigging may be done following Dismiss CA Herbicide applications to turfgrasses. If reseeding, overseeding or sprigging is done within 1 month following a Dismiss CA Herbicide treatment, the establishment of desirable grasses may be inhibited. Overseeding of bermudagrass with perennial ryegrass may be done two (2) to four (4) weeks following a Dismiss CA Herbicide application provided slight grass plant response can be tolerated.

Optimum reseeding and overseeding results may be obtained with the use of mechanical or power seeding equipment, and where proper soil cultivation, irrigation and fertilization practices are followed.

Adjuvant use
Good spray coverage is required for optimum control of weeds. Temporary discoloration of some sod species may result from use of surfactant. Use of surfactants is not recommended.

Postemergence Control of Sedges
Dismiss CA Herbicide may be applied at the rate of four (4) to twelve (12) fluid ounces per acre to established turf grasses for the control or suppression of sedges. Select the correct Dismiss CA Herbicide use rate from Table 25.

When applied as directed, Dismiss CA Herbicide will provide control or suppression of the following sedges.
Table 26A

Common Name	Scientific Name
Kyllinga, green	*Kyllinga brevifolia*
Kullinga, false green	*Kyllinga gracillima*
Nutsedge, purple	*Cyperus rotundus*
Nutsedge, yellow	*Cyperus esculentus*
Sedge, cylindrical	*Cyperus retrorsus*
Sedge, globe	*Cyperus globulosus*
Sedge, Surinam	*Cyperus surinamensis*
Sedge, Texas	*Cyperus polystachyos*

Purple nutsedge: For optimum control of purple nutsedge, split applications are recommended below. Apply 4-8 ounces per acre as an initial application followed by a second application when evidence of actively growing purple nutsedge is visible. Do not exceed the maximum rate per acre based on the turf variety as listed in Table 25; tolerant grasses.

Split Application Rates for Optimum Purple Nutsedge Control

Grass Type	First Application (fl. ozs. per acre)	Second Application (fl. ozs. per acre
Cool Season Grasses	2-4 fl. ounces	2-6 fl. ounces
Warm Season Grasses	4-6 fl. ounces	4-6 fl. ounces

Allow 35 days after first application for second application.

Postemergence Control of Grassy Weeds

Dismiss CA Herbicide will control or suppress specific annual grasses (Table 26 B) when applied at a rate of 4 to 12 fl oz/acre . Apply the highest rate consistent with the rate needed for turfgrass tolerance in Table 25. Rates lower than 12 fl oz/acre will generally control grasses for at least 60 days. Dismiss CA Herbicide works best if applied when the annual grasses are small (pre tiller stage) and actively growing.

Table 26B

Common Name	Scientific Name
Goosegrass	*Eleusine indica*

Postemergence Control of Broadleaf Weeds
Dismiss CA Herbicide will control or suppress the weeds listed in the broadleaf chart below when applied alone shortly after weeds have emerged. Dismiss CA Herbicide may be applied at the rate of four (4) to twelve (12) fluid ounces per acre to established turf grasses for the control or suppression of broadleaf weeds. Select the correct Dismiss CA Herbicide use rate from Table 25. For optimum results, Spartan applications should be made shortly after weeds have emerged.

Dismiss CA Herbicide may be tankmixed with other herbicides, insecticides and fungicides registered for use on turfgrasses. Read and follow the label recommendations of the tank mix partner to determine turfgrass specie tolerance, use rates and application requirements. Follow all label restrictions, use directions and precautionary statements before use.

When applied as directed, Dismiss CA Herbicide will provide control or suppression of the following broadleaf weeds.

Broadleaves	Scientific Names
Bittercress	*Cardamine spp.*
Black Medic	*Medicago lupulina*
Buttercup	*Ranunculus spp.*
Carolina geranium	*Geranium carolinianum*
Carpetweed	*Mollugo verticillata*
Chickweed, common	*Stellaria media*
Chickweed, mousear	*Cerastium vulgatum*
Cinquefoil	*Potentilla spp.*
Clover	*Trifolium spp.*
Cudweed	*Gnaphalium spp.*
Dandelion	*Taraxacum officinale*
Dock, curly	*Rumex crispus*
Evening primrose	*Oenothera biennis*
Fiddleneck	*Amsinckia spp.*
Filaree	*Erodium spp.*
Garlic, wild	*Allium vineale*
Goldenrod	*Solidago spp.*
Ground ivy	*Glechema hederasea*
Henbit	*Lamium amplexicaule*
Knotweed, prostrate	*Polygonum aviculare*
Kochia	*Kochia scoparia*
Lambsquarters, common	*Chenopodium album*
Lawn burweed	*Soliva pterosperma*
Lespedeza, common	*Lespedeza striata*
Mallow, common	*Malva neglecta*
Onion, wild	*Allium canadense*

Parsley piert	*Alchemilla arvensis*
Pigweed, redroot	*Amaranthus retroflexus*
Pigweed, tumble	*Amaranthus albus*
Pineapple weed	*Matricaria matricariodes*
Plantain, buckhorn	*Plantago lanceolata*
Puncture weed	*Tribulus terrestris*
Purslane, common	*Portulaca oleracea*
Pusley, Florida	*Richardia scabra*
Redweed	*Melochia corchorifolia*
Rocket, London	*Sisymbrium irio*
Smartweed, PA	*Polygonum pensylvanicum*
Sorrel, red	*Rumex acetosella*
Speedwell	*Veronica spp.*
Spurge, annual	*Euphorbia spp.*
Spurge, prostrate	*Euphorbia humistrata*
Spurge, spotted	*Euphorbia maculata*
Star of Bethlehem	*Ornithogalum umbellatum*
Velvetleaf	*Abutilon theophrasti*
Violet, wild	*Viola pratincola*
Woodsorrel, creeping	*Oxalis corniculata*
Woodsorrel, yellow	*Oxalis stricta*

Precautions
The use of additional surfactants may cause temporary undesirable effects to turfgrasses.

Restrictions
Sod production areas must be established three (3) months prior to the initial treatment of Dismiss CA Herbicide.

Do not apply Dismiss CA Herbicide to golf course greens or tees.

Do apply Dismiss CA Herbicide to turf grasses not listed on this label.

Do not apply with surfactants without on-site evaluations for spray mixture compatibility and physical effects to turf grasses.

Do not graze or feed forage harvested from Dismiss CA Herbicide treated areas.

Do not apply to landscape ornamental plants or ornamental beds.

Do not harvest sod within three (3) months of Dismiss CA Herbicide application.

Non-CROP USES (34.0)

For Use in Railroad, Highway, Roadside, Pipeline and Utility Rights-of-Way, Industrial Areas, Fence Rows, and Other Non-crop Sites. Can Also Be Used For Selective Weed Control in Turf Sites Including Residential and Institutional Lawns, Athletic Fields, Commercial Sod Farms, Golf Course Fairways and Roughs.

DIRECTIONS FOR USE (35.0)

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.

Do not apply this product through any type of irrigation system.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your state or tribe, consult the agency responsible for pesticide regulation.

GENERAL INFORMATION (36.0)

Dismiss CA Herbicide is a selective soil applied herbicide for the control of certain broadleaf weeds, grasses and sedges. When applied according to directions, it will provide control of susceptible species. Dismiss CA Herbicide is formulated as flowable (suspension concentrate) containing four pounds of the active ingredient sulfentrazone per gallon.

The mode of action of Dismiss CA Herbicide involves uptake by weed roots and shoots. Observe all instructions, mixing directions, application precautions and other label information of each product when tank mixing with Dismiss CA Herbicide.

Proper handling instructions: This product may not be mixed or loaded within 50 feet of any wells (including abandoned wells and drainage wells), sink holes, perennial or intermittent streams and rivers, and natural or impounded lakes and reservoirs. This setback does not apply to properly capped or plugged abandoned wells and does not apply to impervious pad or properly diked mixing/loading areas.

Operations that involve mixing, loading, rinsing or washing of this product into or from pesticide handling or application equipment or containers within 50 feet of any well, are prohibited unless conducted on an impervious pad constructed to withstand the weight of the heaviest load that may be positioned on or moved across the pad. Such a pad shall be designed and maintained to contain any product spills or equipment leaks, container or equipment rinse or wash water, and rainwater that may fall on the pad. Surface water shall not be allowed to either flow over or from the pad, which means the pad must be self contained. The pad shall be sloped to facilitate material removal. An unroofed pad shall be of sufficient capacity to contain at a minimum 110% of the capacity of the largest pesticide container or application equipment on the pad. A pad that is covered by a roof of sufficient size to completely exclude precipitation from contact with the pad shall have a minimum containment capacity of 100% of the capacity of the largest pesticide container or application equipment on the pad. Containment capacities as described above shall be maintained at all times. The above specific minimum containment capacities do not apply to vehicles when delivering pesticide shipments to the mixing/loading site. States may have in effect additional requirements regarding wellhead setbacks and operational containment.

Product must be used in a manner which will prevent back siphoning in wells, spills or improper disposal of excess pesticide, spray mixtures or rinsates.

GENERAL APPLICATION INFORMATION (37.0)

Utilize a boomless application system or a boom and nozzle sprayer equipped with the appropriate nozzles, spray tips and screens and adjusted to provide optimum spray distribution and coverage at the appropriate operating pressures. Utilize nozzles and boomless sprayer configurations which produce minimal amounts of fine spray droplets. Do not exceed 25 psi spray pressure unless otherwise required by the manufacturer of drift reducing nozzles or boomless application systems. Apply a minimum of 10 gallons of finished spray per acre.

Water must be used as the carrier for this product when applied alone, or when tank mixed with other herbicides.

Avoid letting this product sit overnight as settling of product and difficulty of resuspending may occur.

Do not allow spray to drift onto adjacent plants as injury to other plants may occur.

Do not apply to ornamental shrubs and trees, turf grasses or crops.

SPRAY TANK PREPARATION (38.0)

It is important that spray equipment is clean and free of existing pesticide deposits before using this product. Follow the spray tank clean out procedures specified on the label of product previously applied before adding Dismiss CA Herbicide to the tank.

Mixing Instructions (38.1)

Dismiss CA Herbicide may be tank mixed with other herbicides for control of additional weed species. Mixtures with some other herbicides have not been tested. Conduct an appropriate compatibility test prior to tank mixing with other products. Follow all precautions and restrictions on the tank mix partner label.

For best results, fill spray tank with one half of the volume of clean water needed for the area to be treated. Start agitation system. Slowly add Dismiss CA Herbicide to the spray tank. Complete filling the spray tank to the desired level. Continuous spray tank agitation is required at all times to maintain a uniform spray solution. Make sure Dismiss CA Herbicide is thoroughly mixed before application or before adding another product to the spray tank.

For tank mixtures with other herbicides, a jar test should be conducted to ensure product compatibility before full-scale mixing. Provided the jar test indicates the mixture to be compatible, prepare the tank mixture as follows: Fill the tank one half full with water. With agitator operating, add the recommended amounts of ingredients using the following order: dry granules first, liquid suspensions (flowables) second. Add EC products followed by water soluble products to tank as agitation continues and tank is filled with water. All applicable directions, restrictions and precautions for the tank mixture herbicides must be followed.

Use the Dismiss CA Herbicide mixture immediately after mixing. Do not store the sprayer overnight or for any extended period of time with the Sulfentrazone spray mixture remaining in the tank. Premixing Dismiss CA Herbicide spray solutions in nurse tanks is not recommended.

If Dismiss CA Herbicide is tank-mixed with other herbicides, all additional directions , restrictions and precautions for the tank mixture herbicides must be followed.

SPRAY DRIFT MANAGEMENT (39.0)

Avoiding spray drift at the application site is the responsibility of the applicator. The interaction of many equipment and weather-related factors determine the potential for spray drift. The applicator and the grower are responsible for considering all these factors when making decisions.

The following drift management requirements must be followed to avoid off-target drift movement from aerial applications. These requirements do not apply to forestry applications, public health uses or to applications using dry formulations.

1. The distance of the outer most nozzles on the boom must not exceed ¾ the length of the wingspan or rotor.

2. Nozzles must always point backward and parallel with the air stream and never be pointed downwards more than 45 degrees. Where states have more stringent regulations, they should be observed.

The applicator should be familiar with and take into account the information covered in the Aerial Drift Reduction Advisory Information.

Importance of Droplet Size (39.1)

The most effective way to reduce drift potential is to apply large droplets. The best drift management strategy is to apply the largest droplets that provide sufficient coverage and control. Applying larger droplets reduces drift potential, but will not prevent drift if applications are made improperly, or under unfavorable environmental conditions (see Wind, Temperature and Humidity, and Temperature Inversion section of this label).

Controlling Droplet Size (39.2)

Volume: Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets.

Pressure: Use the lower spray pressures recommended for the nozzle. Higher pressure reduces droplet size and does not improve canopy penetration. When higher flow rates are needed, use higher flow rate nozzles instead of increasing pressure.

Number of nozzles: Use the minimum number of nozzles that provide uniform coverage.

Nozzle Orientation: Orienting nozzles so that the spray is released backwards, parallel to the airstream will produce larger droplets than other orientations. Significant deflection from the horizontal will reduce droplet size and increase drift potential.

Nozzle Type: Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles. Solid stream nozzles oriented straight back produce larger droplets than other nozzle types.

Boom Height: Making applications at the lowest height that produces a uniform spray pattern will reduce exposure of droplets to evaporation and wind.

Boom Length: For some use patterns, reducing the effective boom length to less than ¾ of the wingspan or rotor length may further reduce drift without reducing swath width.

Application Height (by air): Applications should not be made at a height greater than 10 feet above the top of the largest plants unless a greater height is required for aircraft safety. Making applications at the lowest height that is safe reduces exposure of droplets to evaporation and wind.

Swath Adjustment

When applications are made with a crosswind toward sensitive areas, the swath will be displaced downwind. Therefore, on the up and downwind edges of the field, the applicator must compensate for this displacement by adjusting the path of the aircraft upwind. Swath adjustment distance should increase, with increasing drift potential (higher wind, smaller drops, etc.). For ground applications, when applications are made with a crosswind towards sensitive areas, the application should leave a buffer to avoid off-site movement.

Wind

Drift potential is lowest between wind speeds of 2-10 mph. However, many factors, including droplet size and equipment type determine drift potential at any given speed. Application should be avoided below 2 mph due to variable wind direction and high inversion potential

Note: Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they affect drift.

Temperature and Humidity

When making applications in low relative humidity, set up equipment to produce larger droplets to compensate for evaporation. Droplet evaporation is most severe when conditions are both hot and dry.

Temperature Inversions

Applications should not occur during a temperature inversion because drift potential is high. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions due to the light variable winds common during inversions. Temperature inversions are characterized by increasing temperatures with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog; however, if fog is not present, inversions can also be identified by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upwards and rapidly dissipates indicates good vertical air mixing.

Sensitive Areas

The pesticide should only be applied when the potential for drift to adjacent sensitive areas (e.g., residential areas, bodies of water, known habitat for threatened or endangered species, non-target crops) is minimal (e.g, when wind is blowing away from the sensitive areas).

Drift Control Additives

Drift control additives may be used with all spray equipment with the exception of controlled droplet applicators. When a drift control additive is used, read and carefully observe cautionary statements and all other information on the label. It is recommended that additives be certified by the Chemical Producers and Distributors Association (CPDA).

Sprayer Equipment Clean-Out (40.0)

After spraying Dismiss CA Herbicide and before using sprayer equipment for any other applications, the sprayer must be thoroughly cleaned using the following procedure:

1. Drain sprayer tank, hoses, and spray boom and thoroughly rinse the inside of the sprayer tank with clean water to remove sediment and residues. In addition, thoroughly flush sprayer hoses, boom, and nozzles with clean water.

2. Fill the tank 1/2 full with clean water, and add appropriate detergent or ammonia (follow manufacturer's directions for use). Fill the tank to capacity and operate the sprayer for 15 minutes to flush hoses, boom, and nozzles.

3. Drain the sprayer system. Rinse the tank with clean water and flush through the hoses, boom, and nozzles. Remove and clean spray tips and screens separately.

4. Properly dispose of all cleaning solution and rinsate in accordance with Federal, State and local regulations and guidelines.

Do not drain or flush equipment on or near desirable trees or plants. Do not contaminate any body of water including irrigation water that may be used on other plants.

APPLICATION INSTRUCTIONS (41.0)

Railroad Rights-of-Way (41.1)

Dismiss CA Herbicide can be used to control many weeds and maintain bare ground on railroad rights-of-way, including railroad yards, railroad crossings and railroad bridge abutments.

Highway, Roadside, Pipeline and Utility Rights-of-Way. (41.2)

Dismiss CA Herbicide can be used to control many weeds and maintain bare ground in highway, roadside, pipeline and utility rights-of-way, Such areas would include, but are not limited to, guard rails, road shoulders, electric utility substations, pipeline pumping stations, around electric transmission towers, around distribution line poles and in other areas where complete vegetation control is desired.

Industrial Areas, Fence Rows and Other Non-crop Sites (41.3)

Dismiss CA Herbicide controls weeds and maintains bare ground in industrial areas including production facilities, tank farms, storage areas, parking areas, lumber yards, airports, military installations, along fence rows, and in similar non-crop sites where complete vegetation control is needed.

Method and Rate of Application (41.4)

For residual control of germinating weeds in non-crop land, apply this product as a broadcast treatment at 8 to 12 fluid ounces (0.25 to 0.375 pounds active ingredient) per acre by ground in a minimum of 10 gallons of spray solution per acre. Applications may be made by helicopter on railroad rights-of-way only.

DO NOT apply Dismiss CA Herbicide to soils classified as sand with less than 1% Organic Matter.

Use labeled rates of burndown herbicides such as glyphosate, glyphosate - trimesium, diquat, 2,4-D, dicamba,etc. as tank mixtures with Dismiss CA Herbicide. Use recommended adjuvants for the herbicide tank mix partner. For all products used in tank mixes, refer to the specific product labels for all restrictions on tank mixing and observe all label precautions, instructions and rotational cropping restrictions.

Timing

For best results, apply Dismiss CA Herbicide alone or in combination with other herbicides for residual control of weeds in late summer, fall, or early spring to insure adequate moisture for soil activation.

Weeds Controlled

This product, when applied at 8 to 12 fluid ounces per acre, will control the following weeds in non-cropland areas. Use the higher labeled rates to extend length of control. Use the higher rates on sites with fine soil textures and on sites with more than 2% organic matter.

Weeds Controlled	
Common Name	**Scientific Name**
Beggarweed, Florida	Desmodium tortuosum
Carpetweed	Mollugo verticillata
Chickweed, common	Stellaria media
Copperleaf, Hophornbeam	Acalypha ostryifolia
Crabgrass species	Digitaria spp.
Croton, tropic	Croton glandulosus
Daisy, American	Coreopsis grandiflora
Dayflower, common	Commelina communis
Dayflower, Virginia	Commelina virginica
Dock, curly	Rumex crispus
Fixweed	Descurainia Sophia
Galinsoga, hairy	Galinsoga ciliata
Groundcherry, clammy (seedling)	Physallis heterophylla
Groundcherry, cutleaf	Physalis angulata
Jimsonweed	Datura stramonium
Kochia	Kochia scoparia
ALS/Triazene Resistant Kochia	Kochia scoparia
Lambsquarter, common	Chenopodium album
Lettuce, wild	Lactuca virosa
Mallow, common	Malva neglecta
Milkweed, honeyvine	Ampelamus albidus
Mexicanweed	Caperonia castanifolia
Morningglory species	Ipomoea spp.
Mustard species	Brassica spp.
Nightshade species	Solanum spp.
Nutsedge species	Cyperus spp
Palmer amaranth	Amaranthus palmeri
Pigweed, smooth	Amaranthus hybridus
Pigweed, redroot	Amaranthus retroflexus
Texasweed	Caperonia palustrus
Thistle, Russian	Salsola iberica
Waterhemp, tall	Amaranthus tuberculatus

Turf Use Instructions (42.0)

General Information (42.1)

Dismiss CA Herbicide is a selective preemergence and post emergence herbicide which controls annual grasses and broadleaf weeds in established turf areas including, but not limited to, residential and institutional lawns, athletic fields, commercial sod farms, golf course fairways and golf course roughs. To broaden the spectrum for preemergence control or suppression of annual grasses and/or broadleaf weeds, Dismiss CA Herbicide should be tank mixed with an EPA registered annual grass herbicide. Observe all instructions, mixing directions, application precautions and other label information of each product when tank mixing with Dismiss CA Herbicide.

Dismiss CA Herbicide is formulated as a flowable (suspension concentrate) containing 4 lbs of active ingredient per gallon. The mode of action of Dismiss CA Herbicide involves uptake by both weed roots and shoots. Preemergence application of Dismiss CA Herbicide requires soil moisture for activation. The amount of soil moisture required for activation following application depends on existing soil moisture, organic matter content and soil texture. The most effective preemergence weed control will be obtained when Dismiss CA Herbicide is activated by at least 0.5 inches of rainfall or irrigation within 7 days after application and prior to weed seed germination.

Mixing and Application Instructions (42.2)

General handling instructions

This product may not be mixed or loaded within 50 feet of any wells (including abandoned wells and drainage wells), sink holes, perennial or intermittent streams and rivers, and natural or impounded lakes and reservoirs. This setback does not apply to properly capped or plugged abandoned wells and does not apply to impervious pad or properly diked mixing/loading areas.

Operations that involve mixing, loading, rinsing or washing of this product into or from pesticide handling or application equipment or containers within 50 feet of any well, are prohibited unless conducted on an impervious pad constructed to withstand the weight of the heaviest load that may be positioned on or moved across the pad. Such a pad shall be designed and maintained to contain any product spills or equipment leaks, container or equipment rinse or wash water, and rainwater that may fall on the pad. Surface water shall not be allowed to either flow over or from the pad, which means the pad must be self contained. The pad shall be sloped to facilitate material removal. An unroofed pad shall be of sufficient capacity to contain at a minimum 110% of the capacity of the largest pesticide container or application equipment on the pad. A pad that is covered by a roof of sufficient size to completely exclude precipitation from contact with the pad shall have a minimum containment capacity of 100% of the capacity of the largest pesticide container or application equipment on the pad. Containment capacities as described above shall be maintained at all times. The above specific minimum containment capacities do not apply to vehicles when delivering pesticide shipments to the mixing/loading site. States may have in effect additional requirements regarding wellhead setbacks and operational containment.

Product must be used in a manner which will prevent back siphoning in wells, spills or improper disposal of excess pesticide, spray mixtures or rinsates.

SPRAY TANK PREPARATION

It is important that spray equipment is clean and free of existing pesticide deposits before using this product. Follow the spray tank clean out procedures specified on the label of product previously applied before adding Dismiss CA Herbicide to the tank.

Dismiss CA Herbicide is a suspension concentrate intended for dilution with water. In certain applications, liquid fertilizer may replace water as diluent.

MIXING WITH WATER

For best results, fill spray tank with one fourth of the volume of clean water needed for the area to be treated. Start the agitation system and add Dismiss CA Herbicide to the tank. Make sure Dismiss CA Herbicide is thoroughly mixed before application or before adding another product to the spray tank.

USE OF SURFACTANTS

Temporary discoloration of some turf types may result from use of surfactants or adjuvants with Dismiss CA Herbicide. High temperatures and high relative humidity may increase the risk of temporary discoloration. Use of surfactants is not recommended.

MIXING WITH LIQUID FERTILIZERS

Utilize local recommendations for sources and rates of fertilizer and refer to mixing directions on the fertilizer labels (e.g. UAN or urea solutions). Determine the compatibility of this product with the desired fluid fertilizer by mixing small proportional quantities in advance (See the "TANK MIXTURES COMPATIBILITY" section below)

TANK MIXTURES COMPATIBILITY

Dismiss CA Herbicide is believed to be compatible with most herbicides, fungicides, insecticides, growth regulators, liquid fertilizers and spray adjuvants commonly used in turf and ornamental plant management. However, when preparing a new tank mix conduct an appropriate compatibility test by mixing proportional amounts of all spray ingredients in a test vessel (jar) prior to tank mixing with other products. Shake the mixture vigorously and allow it to stand for five to ten minutes. Rapid precipitation of the ingredients and failure to re-suspend when shaken indicates that the mixture is incompatible and should not be applied. Provided the jar test indicates the mixture to be compatible, prepare the tank mixture as follows: Fill the tank one fourth full with water. With the agitator operating, add the recommended amounts of ingredients using the following order: dry granules first, and liquid suspensions (flowables) second. As the agitation continues and the tank is filled with water add EC products third followed by the addition of water soluble products.

Read and observe mixing instructions of all tank mix partners. Also read each product's label for Directions for Use, Precautionary Statements and Restrictions and Limitations. The most restrictive labeling applies in all tank mixtures. No label dosage rate should be exceeded. Tank mixture recommendations are for use only in states where the companion products and application site are registered. In addition, certain states or geographical regions may have established dosage rate limitations. Consult your state Pesticide Control Agency for additional information regarding the maximum use rates.

Use Dismiss CA Herbicide spray mixture immediately after mixing. Do not store the mixture.

Ground Equipment

Power sprayers: Uniform and accurate spray coverage requires proper calibration and operation of spray equipment. The use of marker dyes or foams can improve application accuracy. Boom sprayers equipped with appropriate flat fan nozzles, tips and screens are ideal for broadcast applications. Power sprayers fitted with spray wand/gun may also be used for broadcast application after careful calibration by the applicator. Power sprayers fitted with spray wand/gun are suitable for spot treatments.

Hand operated sprayers: Backpack and compression sprayers are appropriate for small turfgrass areas and spot treatments. Wands fitted with a flat fan nozzle tip should be held stationary at the proper height during application. A side to side or swinging arm motion can result in uneven coverage.

Apply this product in a sufficient volume of carrier solution to provide a uniform spray distribution. Spray volumes of 20 – 175 gallons per acre (0.5 to 4.0 gal/1,000 ft^2) with spray pressures adjusted to 20 – 40 psi are appropriate. Apply the higher spray volumes for dense weed populations.

Sprayer Equipment Clean-Out

After spraying Dismiss CA Herbicide and before using sprayer equipment for any other applications, the sprayer must be thoroughly cleaned using the following procedure:

1. Drain sprayer tank, hoses, and spray boom and thoroughly rinse the inside of the sprayer tank with clean water to remove sediment and residues. In addition, thoroughly flush sprayer hoses, boom, and nozzles with clean water.

2. Fill the tank 1/2 full with clean water, and add appropriate detergent or ammonia (follow manufacturer's directions for use). Fill the tank to capacity and operate the sprayer for 15 minutes to flush hoses, boom, and nozzles.

3. Drain the sprayer system. Rinse the tank with clean water and flush through the hoses, boom, and nozzles. Remove and clean spray tips and screens separately.

4. Properly dispose of all cleaning solution and rinsate in accordance with Federal, State and local regulations and guidelines.

Do not drain or flush equipment on or near desirable trees or plants. Do not contaminate any body of water including irrigation water that may be used on other plants.

Weed Control in Turfgrasses (42.3)

Use Precautions for Turf Use

Turfgrass Safety

This product may be used on seeded, sodded or sprigged turgrasses that are well established. First application of this product can be made following the second mowing providing the turfgrass has developed into a uniform stand with a good root system. Turfgrass injury could result from application of this product on turfgrass that is not well established or has been weakened by stresses such as unfavorable weather conditions, disease, chemical or mechanical influences.

When applied as directed under the conditions described, the following established turfgrasses are tolerant to Dismiss CA Herbicide at the recommended use rates in a range from 0.125 to 0.375 lb a.i./acre (4 to 12 fl. oz/acre or 0.092 to 0.275 fl. oz./1,000 sq. ft).

Table 27. Tolerant grasses.

Grass Type*	Maximum Use Rate Single Application		
Cool Season Grasses	lb ai/A	Fluid ounces per 1000 ft^2	Fluid ounces per acre
Bentgrass, creeping *(Agrostis sp.)*	0.125	0.092	4
Bluegrass, Kentucky *(Poa pratensis)* Bluegrass, Rough[2] *(Poa trivialis)* Fescue, fine[1] *(Festuca rubra)* Fescue, tall[1] *(Festuca arundinacea)* Ryegrass, perennial *(Lolium perenne)*	0.125 - .25	0.092 - 0.18	4 - 8
Warm Season Grasses			
Bahiagrass[2] *(Paspalum notatum)* Bermudagrass *(Cynodon dactylon)* & hybrids Buffalograss *(Buchloe dactyloides)* Carpetgrass *(Axonopus affinis)* Centipedegrass *(Eremochloa ophuiroides)* Kikuyugrass *(Pennisetum clandestinum)* Seashore Paspalum (Paspalum vaginatum) St.Augustinegrass *(Stenotaphrum secundatum)*[2] Zoysiagrass *(Zoysia japonica)*[2]	0.25 - 0.375	0.18 – 0.275	8 - 12

1. Use of this product on certain cultivars of Chewings Fescue Fine Fescue or Tall Fescue cultivars may result in undesirable injury.

2. Dismiss CA Herbicide application may cause temporary discoloration to exposed leaf surfaces on St. Augustinegrass and certain cultivars of zoysiagrass bahiagrass,.or rough bluegrass. Treated turfgrass will recover with new growth. Discolored leaf tissue will be removed with mowing. To reduce potential for discoloration, do not apply Dismiss CA Herbicide on turfgrass that is weakened by weather, mechanical, chemical, disease or other related stress. Maintain proper cultural practices such as adequate moisture and fertility levels to promote healthy turf growth.

* Dismiss CA Herbicide has demonstrated tolerance on both cool and warm season turfgrasses. However, not all varieties have been evaluated. Turfgrass managers desiring to treat newly released varieties should first apply Dismiss CA Herbicide to a small area prior to treatment of larger areas.

Application to reseeded, overseeded or sprigged areas:
Reseeding, overseeding or sprigging of treated areas within one (1) month after application of this product could inhibit the establishment of desirable turfgrasses. Overseeding of bermudagrass with perennial ryegrass at two (2) to four (4) weeks after an application can be done if slight injury to perennial ryegrass can be tolerated.

Best results are obtained for reseeding or overseeding when mechanical or power seeding equipment (slit seeders) are used to give good seed to soil contact and proper soil cultivation, irrigation and fertilization practices are followed.

Sod Production:
This product may be applied to established sod. Allow sod to establish a good root system, a uniform stand and to fill in the exposed edges. It is recommended that sod be established for at least three (3) months before an application of Dismiss CA Herbicide. Do not apply this product within three (3) months of harvest.

Other Use Precautions:
Do not apply to golf course putting greens or tees.

Do not use on turfgrasses other than those listed on this label.

Do not apply with surfactants unless previous experience has demonstrated combinations with surfactant to be physically compatible and non-injurious to the grass type in question.

Do not graze or feed livestock forage cut from areas treated with Dismiss CA Herbicide.

Do not apply directly to landscape ornamentals or ornamental beds.

Temporary turfgrass discoloration has been observed when Primo has been either tank-mixed or applied within 7 days of a Dismiss CA Herbicide application. It is recommended that Primo applications be made 7 days prior to, or after Dismiss CA Herbicide application to reduce risk of turfgrass discoloration.

PREEMERGENCE CONTROL OF ANNUAL GRASSES AND BROADLEAF WEEDS

Control of Summer Annual Weeds:
Apply Dismiss CA Herbicide at the application rate for the turf species being managed (4 to 12 fluid ounces/acre or 0.092 to 0.275 fl. oz./1,000 sq. ft.) prior to weed seed germination in early spring. Applications in early spring will control or suppress the following summer annuals:

Black medic	(*Medicago lupu*)
Common purslane	(*Portulaca olera...*)
Pigweed, Redroot	(*Amaranthus retroflexus*)
Pigweed, Smooth	(*Amaranthus hybridus*)
Prostrate knotweed	(*Polygonum aviculare*)
Spurge Prostrate spurge Spotted spurge	(*Euphorbia spp.*) (*Euphorbia supina*) (*Euphorbia maculata*)
Barnyardgrass	(*Echninochloa crusgalli*)
Crabgrass, large	(*Digitraria sanguinalis*)
Crabgrass, smooth	(*Digitaria ischaemum*)
Foxtail, green	(*Setaria viridis*)
Foxtail, yellow	(*Setaria glauca*)
Goosegrass	(*Eleusine indica*)

Control of Winter Annual Weeds:
Apply Dismiss CA Herbicide at the application rate for the turf species being managed (4 to 12 fluid ounces/acre or 0.092 to 0.275 fl. oz./1,000 sq. ft.) in late summer or early fall to control or suppress the following winter annual weeds:

Buttercups	(*Ranunculus spp.*)
Carolina geranium	(*Geranium carolinianum*)
Common chickweed	(*Stellaria media*)
Common groundsel	(*Senecio vulgaris*)
Corn Speedwell	(*Veronica arvensis*)
Hairy bittercress	(*Cardamine hirsuta*)
Henbit	(*Lamium amplexicaule*)
Johnnyjumpup violet	(*Viola rafeinesquii*)
Knawel	(*Scleranthus annuus*)
Large hop clover	(*Trifolium campestre*)
Mouseear chickweed	(*Cerastium vulgatum*)
Parsley-piert	(*Alchemilla microcarpa*)
Spurweed	(Soliva pterosperma)
Annual bluegrass	(*Poa annua*)
Annual ryegrass	(*Lolium multiflorum*)

To broaden the spectrum for preemergence control or suppression of annual grasses and/or broadleaf weeds, Dismiss CA Herbicide can be tank mixed with an EPA registered annual grass herbicide. Applications in combination with prodiamine, pendimethalin, dithiopyr or oxadiazon will provide broad spectrum control of the weeds listed in Table 28. Read the label recommendations of the tank mix partner to determine grass species safety, use rate and application procedures. Follow all label restrictions, use directions and precautionary statements before using these tank mixtures. Read and follow the "TANK MIXTURES COMPATIBILITY" section of this label for instructions on how to determine the compatibility of tank mixtures.

POSTEMERGENCE CONTROL OF ANNUAL, BIENNIAL & PERENNIAL BROADLEAF WEEDS
Dismiss CA Herbicide will control or suppress the weeds listed in Table 23 when applied alone shortly after weeds have emerged. Apply Dismiss CA Herbicide at rates from 4 to 12 fl. oz/acre (0.092 to 0.275 fl. oz./1,000 sq. ft.). Do not exceed the application rate specified for the turfgrass species in Table 27. To broaden the weed spectrum and increase effectiveness for certain weeds listed in Table 4, Dismiss CA Herbicide may be tank mixed with other EPA registered postemergence herbicides. Control of emerged annual grass weeds may be improved by combining Dismiss CA Herbicide with Acclaim®, Dimension®, MSMA or Drive®. Read the label recommendations of the tank mix partner to determine turfgrass species safety, use rate and application procedures. Follow all label restrictions, use directions and precautionary statements before using these tank mixtures. Read and follow the "TANK MIXTURES COMPATIBILITY" section of this label for instructions on how to determine the compatibility of tank mixtures.

When used as directed Dismiss CA Herbicide will control or suppress the following weeds.

Table 28. Weeds Controlled or Suppressed by Dismiss CA Herbicide

BROADLEAVES	SCIENTIFIC NAMES
Bedstraw, catchweed	(*Galium aparine*)
Beggarweed, Florida	(*Desmodium tortuosum*)
Bittercress	(*Cardamine spp.*)
Black medic	(*Medicago lupulina*)
Buttercups	(*Ranunculus spp.*)
Carolina geranium	(*Geranium carolinianum*)
Carpetweed	(*Mollugo verticillata*)
Chickweed, common	(*Stellaria media*)
Chickweed, mouseear	(*Cerastium vulgatum*)
Cinquefoil	(*Potentilla spp.*)
Clover	(*Trifolium spp.*)
Copperleaf	(*Ascalypha spp.*)
Cudweed	(*Gnaphalium spp.*)
Dandelion	(*Taraxacum officinale*)
Dock, Curly	(*Rumex crispus*)
Dollarweed	(*Hydrocotyl umbellata*)
Eclipta	(*Eclipta prostrata*)
Evening primrose	(*Oenothera biennis*)
Fiddleneck	(*Amsinckia spp.*)
Filaree	(*Erodium spp.*)
Galinsoga	(*Galinsoga ciliate*)
Goldenrod	(*Solidago spp.*)
Ground ivy	(*Glechoma hederacea*)
Groundsel, common	(*Senecio vulgaris*)
Henbit	(*Lamium amplexicaule*)
Knawel	(*Scleranthus annuus*)
Knotweed, prostrate	(*Polygonum aviculare*)
Kochia	(*Kochia scoparia*)
Lambsquarters, common	(*Chenopodium album*)

Lawn burweed (spurweed)	*(Soliva pterosp[illegible]a)*
Lespedeza, common	*(Lespedeza str[illegible])*
Mallow, common	*(Malva neglecta)*
Parsley piert	*(Alchemilla arvensis)*
Pigweed, Redroot	*(Amaranthus retroflexus)*
Pigweed, Smooth	*(Amaranthus hybridus)*
Pigweed, Tumble	*(Amaranthus albus)*
Pineapple weed	*(Matricaria matricarioides)*
Plantain, buckhorn	*(Plantago lanceolata)*
Puncture weed	*(Tribulus terrestris)*
Purslane, common	*(Portulaca oleracea)*
Pusley, Florida	*(Richardia scabra)*
Redweed	*(Melochia corchorifolia)*
Rocket, London	*(Sisymbrium irio)*
Shepherd's purse	*(Capsella bursa-pastoris)*
Smartweed, Pennsylvania	*(Polygonum pensylvanicum)*
Sorrel, Red	*(Rumex acetosella)*
Speedwell	*(Veronica spp.)*
Spurge, (annuals)	*(Euphorbia spp.)*
Spurge, prostrate	*(Euphorbia humistrata)*
Spurge, spotted	*(Euphorbia maculata)*
Star of Bethlehem	*(Ornithogalum umbellatum)*
Velvetleaf	*(Abutilon theophrasti)*
Violet, wild	*(Viola pratincola)*
Violet, Johnny-jump-up	*(Viola rafeinesquii)*
Wild garlic	*(Allium vineale)*
Wild onion	*(Allium canadense)*
Woodsorrel, creeping	*(Oxalis corniculata)*
Woodsorrel, yellow	*(Oxalis stricta)*

POSTEMERGENCE CONTROL OF ANNUAL AND PERENNIAL SEDGES

Dismiss CA Herbicide will control or suppress sedges (Table 29) when applied at a rate of 4 to 12 fl oz/acre (0.092 to 0.275 fl. oz./1,000 sq. ft.). Apply the highest rate consistent with the rate needed for turfgrass safety in Table 27. Rates lower than 12 fl oz/acre (0.275 fl. oz/1,000 sq. ft.) will generally control sedges for at least 60 days. A rate of 12 fl oz/acre (0.275 fl oz/1,000 sq. ft.) will provide approximately 75% control for at least 60 days. Yellow nutsedge (*Cyperus esculentus*) is the most susceptible sedge species.

Good spray coverage is needed for optimum control of sedges. Temporary discoloration of some turfgrass species may result from use of surfactant. Use of surfactants is not recommended.

Table 29. Sedge species controlled or suppressed by Dismiss CA Herbicide

Common Name	SCIENTIFIC NAME
Kyllinga, green	*(Kyllinga brevifolia)*
Kyllinga, false green	*(Kyllinga gracillima)*
Nutsedge, purple[1]	*(Cyperus rotundus)*
Nutsedge, yellow	*(Cyperus esculentus)*
Sedge, globe	*(Cyperus globulosus)*
Sedge, cylindric	*(Cyperus retrorsus)*
Sedge, Surinam	*(Cyperus surinamensis)*
Sedge, Texas	*(Cyperus polystachyos)*

1. PURPLE NUTSEDGE; For optimum control of purple nutsedge, split applications are recommended (Table 30). Apply 4-8 ounces per acre as an initial application followed by a second application when evidence of actively growing purple nutsedge is visible. Do not exceed the maximum rate per acre based on turfgrass variety listed in Table 27; Tolerant grases.

Table 30

Split Application Rate Options		
Grass Type	Option 1 (fluid ounces/acre)	Option 2 (fluid ounces/acre)
Cool Season Grasses excluding Bentgrass (see Table 1)	4 oz followed by 4 oz 35 DAIT	6 oz followed by 2 oz 35 DAIT
Warm Season Grasses (see Table 1)	8 oz followed by 4 oz 35 DAIT	6 oz followed by 6 oz 35 DAIT

DAIT = Days After Initial Treatment

POSTEMERGENCE CONTROL OF GRASSY WEEDS

Dismiss CA Herbicide will control or suppress specific annual grasses (Table 26) when applied at a rate of 4 to 12 fl oz/acre (0.092 to 0.275 fl. oz./1,000 sq. ft.). Apply the highest rate consistent with the rate needed for turfgrass tolerance in Table 27. Rates lower than 12 fl oz/acre (0.275 fl. oz/1,000 sq. ft.) will generally control grasses for at least 60 days. Dismiss CA Herbicide works best if applied when the annual grasses are small (pre tiller stage) and actively growing.

Good spray coverage is needed for optimum control of grasses. Temporary discoloration of some turfgrass species may result from use of surfactant. Use of surfactants is not recommended.

Table 30

Common Name	Scientific Name
Goosegrass	*Eleusine indica*

LABEL TRACKING INFORMATION (43.0)

Label Code: Dismiss CA Herbicide 09-21-09 ABN

FMC Corporation
Agricultural Products Group
1735 Market Street
Philadelphia Pennsylvania 19103
215-299-6000

NEXT

LABEL

279-3370 10-30-2009 1/14

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF
PREVENTION, PESTICIDES AND
TOXIC SUBSTANCES

OCT 30 2009

Mr. Michael C. Zucker
Senior Registration & Label Specialist
FMC Corporation – Agricultural Product Group
1735 Market Street
Philadelphia, PA 19103

RE: Notification of an Alternate Brand Name: Crossing CAL Herbicide
EPA Registration Number: 279-3370
Date of Submission: September 16, 2009

Dear Mr. Zucker:

The Agency is in receipt of your Application for Pesticide Notification under Pesticide Registration Notice (PRN) 98-10 dated September 16, 2009, for the above mentioned product. The Registration Division (RD) has conducted a review of this request for its applicability under PRN 98-10 and finds that the actions requested fall within the scope of PRN 98-10. The label submitted with the application has been stamped "Notification" and will be placed in our records.

If you have any questions, please me directly at 703-305-6249 or Joyce Edwards of my staff at 703-308-5479.

Sincerely,

Linda Arrington
Notifications & Minor Formulations Team Leader
Registration Division (7505P)
Office of Pesticide Programs

Please read instructions on reverse before completi rm. Form Approved. O No. 2070-0060. Approval expires 2-28-95

EPA

United States
Environmental Protection Agency
Washington, DC 20460

- [ ] Registration
- [ ] Amendment
- [x] Other

OPP Identifier Number

Application for Pesticide - Section I

1. Company/Product Number	2. EPA Product Manager	3. Proposed Classification
FMC Corporation/ 279 -3370	Ms. Joanne I. Miller	[x] None [ ] Restricted
4. Company/Product (Name)	**PM#**	
FMC Corporation/Crossing CAL Herbicide	23	

5. Name and Address of Applicant *(Include ZIP Code)*

FMC Corporation - Agricultural Products Group
1735 Market Street
Philadelphia, PA 19103

[ ] *Check if this is a new address*

6. Expedited Reveiw. In accordance with FIFRA Section 3(c)(3)(b)(i), my product is similar or identical in composition and labeling to:

EPA Reg. No. 279 - 3370

Product Name F6285 4F CAL Herbicide

Section - II

- [ ] Amendment - Explain below.
- [ ] Resubmission in response to Agency letter dated _____
- [L] Notification - Explain below.
- [ ] Final printed labels in repsonse to Agency letter dated _____
- [ ] "Me Too" Application.
- [ ] Other - Explain below.

NOTIFICATION

OCT 3 0 2009

Explanation: Use additional page(s) if necessary. (For section I and Section II.)

Notification of an alternate brand name per PR Notice 98-10.
This notification is consistent with the provisions of PR Notice 98-10 and EPA regulations at 40 CFR 152.46, and no other changes have been made to the labeling or the confidential statement of formula of this product. I understand that it is a violation of U.S.C. Sec.1001 to willfully make any false statement to EPA. I further understand that if this notification is not consistent with the terms of PR Notice 98-10 and 40 CFR 152.46, this product may be in violation of FIFRA and I may be subject to enforcement action and penalties under sections 12 and 14 of FIFRA.

Section - III

1. Material This Product Will Be Packaged In:

Child-Resistant Packaging	Unit Packaging	Water Soluble Packaging	2. Type of Container
[ ] Yes [x] No	[ ] Yes [x] No	[ ] Yes [x] No	[ ] Metal [x] Plastic [ ] Glass [ ] Paper [ ] Other (Specify)
* *Certification must be submitted*	If "Yes" Unit Packaging wgt. / No. per container	If "Yes" Package wgt / No. per container	

3. Location of Net Contents Information	4. Size(s) Retail Container	5. Location of Label Directions
[ ] Label [x] Container		[x] on label/container

6. Manner in Which Label is Affixed to Product [x] Lithograph / Paper glued / Stenciled [ ] Other _____

Section - IV

1. Contact Point *(Complete items directly below for identification of individual to be contacted, if necessary, to process this application.)*

Name	Title	Telephone No. (Include Area Code)
Michael C. Zucker	Senior Registration & Label Specialist	(215)299-5876

Certification

I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowlingllly false or misleading statement may be punishable by fine or imprisonmentor both under applicable law.

6. Date Application Received (Stamped)

2. Signature	3. Title	
Michael C. Zucker	Senior Registration & Label Specialist	
4. Typed Name	**5. Date**	
Michael C. Zucker	September 16, 2009	

FMC Agricultural Products

FMC Corporation
1735 Market Street
Philadelphia, PA 19103

215.299.6000 Phone
215.299.6468 Fax

www.fmc.com

September 16, 2009

United States Environmental Protection Agency
Document Processing Desk (Notifications)
Office of Pesticide Programs (7504P)
One Potomac Yard, Room S-4900
2777 South Crystal Drive
Arlington, VA 22202

Dear Ms. Miller:

Subject: Crossing CAL Herbicide
EPA Reg. No. 279-3370

Notification of an Alternate Brand Name per PR Notice 98-10.

FMC is notifying the Agency that Crossing CAL Herbicide is an alternate brand name for F6285 4F CAL Herbicide.

Enclosed please find the following documents:

Cover Letter
Form 8570-1
One copy of the Crossing CAL Herbicide label.

If you have any questions, or if I can be of any further assistance, please feel free to contact me at (215) 299-5876 or by e-mail at mike_zucker@fmc.com.

Sincerely,

Michael C. Zucker
Senior Registration & Label Specialist
FMC Corporation
Agricultural Products Group

FMC

Crossing CAL
Herbicide

For Use Only by Individuals/Firms Certified And/or Licensed as Pesticide Applicators

NOTIFICATION

OCT 3 0 2009

EPA Reg. No. 279-3370 **EPA Est. 279-**

Active Ingredient: By Wt. (1)

Sulfentrazone	39.6%
Inert Ingredients:	60.4%
	100.0%

Contains 4 pounds of active ingredient per gallon.
U.S. Patent No. 4,818,275

KEEP OUT OF REACH OF CHILDREN

CAUTION

FIRST AID (2.0)

If Inhaled
Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice.

If on Skin or Clothing
Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

If in Eyes
Hold eye open and rinse slowly and gently with water for 15- 20 minutes. Remove contact lenses, if present, after the first 5 minutes. Then continue rinsing eye. Call a poison control center or doctor for treatment advice.

If Swallowed
Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person.

HOTLINE NUMBER (3)

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-331-3148 for emergency medical treatment information.

Note to Physician: Sulfentrazone is expected to have low oral and dermal toxicity, and moderate inhalation toxicity. It is expected to be slightly irritating to the skin and minimally irritating to the eyes. Treatment is otherwise controlled removal of exposure followed by symptomatic and supportive care.

See other sections for precautionary information.

ACTIVE INGREDIENT MADE IN CHINA AND FORMULATED AND PACKAGED IN USA.

From FMC

Group 14 Herbicide

ATTENTION

-Although this label may appear similar to the label on a product you may have used, there may be important label differences. Users must read, understand and strictly follow all label directions, precautions and restrictions.

-It is the user's responsibility to be sure the product is approved for sale or use on the intended crop and for use in the specific geographic area.

-It is the user's responsibility to be aware of and to follow all State or local precautions or restrictions not appearing on this product label.

-Prior to purchase or use of this product, read the Terms of Sale or Use and Limitation of Warranty and Liability on page 2 of this label. If the terms and conditions are unacceptable, return the product immediately in the original and unopened container.

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PRECAUTIONARY STATEMENTS (4.0)

Hazards to Humans and Domestic Animals (4.1)

Caution

Causes moderate eye irritation. Harmful if inhaled, swallowed, or absorbed through skin. Avoid breathing vapor or spray mist. Avoid contact with skin, eyes or clothing.

Personal Protective Equipment (PPE) (4.2)

Applicators and other handlers must wear: long-sleeved shirt and long pants, chemical-resistant gloves made of any waterproof material such as polyethylene or polyvinyl chloride, and shoes plus socks.

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product. Do not reuse them. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

User Safety Recommendations:

Users should:

• Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

Environmental Hazards (4.3)

This pesticide is toxic to marine/estuarine invertebrates. Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Drift and runoff may be hazardous to terrestrial and aquatic plants in neighboring areas. Do not contaminate water when disposing of equipment washwaters or rinsate.

Groundwater advisories: This chemical is known to leach through soil into groundwater under certain conditions as a result of label use. Use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination.

Do not use on coarse soils classified as sand, which have less than 1% organic matter.

Surface water advisory: Sulfentrazone can contaminate surface water through spray drift. Under some conditions, sulfentrazone may also have a high potential for runoff into surface water (primarily via dissolution in runoff water), for several to many months post-application. These include poorly draining or wet soils with readily visible slopes toward adjacent surface waters, frequently flooded areas, areas overlying extremely shallow groundwater, areas with in-field canals or ditches that drain to surface water, areas not separated from adjacent surface waters with vegetated filter strips, and areas over-lying tile drainage systems that drain to surface waters.

Physical/Chemical Hazards (4.4)

Do not use or store near heat or open flame.

DIRECTIONS FOR USE (5.0)

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

For Use Only in the State of California.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application.

Do not apply more than the allowed amount of Crossing CAL Herbicide per acre per twelve-month period as stated in Table 2. The twelve-month period is considered to begin upon the initial Crossing CAL Herbicide application.

For any requirements specific to your State or Tribe, consult the Agency responsible for pesticide regulation.

AGRICULTURAL USE REQUIREMENTS (5.1)

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry interval. These requirements only apply to uses of this product that are covered by the Worker Protection Standard.

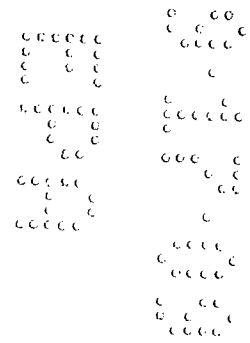
Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 12 hours.

Personal Protective Equipment (PPE) required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water is: Coveralls over long-sleeved shirt and long pants, chemical-resistant gloves made of any waterproof material, and shoes plus socks.

Non-Agricultural Use Requirements

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries, or greenhouses.

Re-entry Statement: Do not allow people (other than applicator) or pets on treatment area during application. Do not enter treatment area until spray has dried.



STORAGE AND DISPOSAL (5)

Do not contaminate water, food or feed by storage or disposal. Do not use or store around the home.

Pesticide Storage
Store product in original container only, away from other pesticides, fertilizer, food or feed.
Store in a cool, dry place and avoid excess heat.

In Case of Spill
In case of spill, avoid contact, isolate area and keep out animals and unprotected persons. Confine spills. Call FMC: (800) 331-3148.

To Confine Spill
To confine spill: If liquid, dike surrounding area or absorb with sand, cat litter or commercial clay. If dry material, cover to prevent dispersal. Place damaged package in a holding container. Identify contents.

Pesticide Disposal
Waste resulting from the use of this product may be disposed of at an approved waste disposal facility.

Container Disposal
Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: (For containers greater than 5 gallons) Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. (For containers 5 gallons or less) Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow
begins to drip. Repeat this procedure two more times. Triple rinse (or equivalent). Then offer for recycling if available, or reconditioning, or puncture and dispose of in a sanitary landfill, or incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of
smoke.

Returnable/Refillable Containers - Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. ¶ To clean the container before final disposal, empty the remaining contents into application equipment or mix tank. Fill the container about 10% full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times.

CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY (6.0)

Notice: Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before buying or using this product. If the terms are not acceptable, return the product at once, unopened, and the purchase price will be refunded.

The Directions for Use of this product must be followed carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Crop injury, ineffectiveness, or other unintended consequences may result because of such factors as manner of use or application, weather or crop conditions beyond the control or FMC or Seller. All such risks shall be assumed by Buyer and User, and, to the extent consistent with applicable law, Buyer and User agree to hold FMC and Seller harmless for any claims relating to such factors.

Seller warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated on the Directions for Use when used in accordance with the directions under normal conditions of use. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, FMC MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE, NOR ANY OTHER EXPRESS OR IMPLIED WARRANTIES WITH RESPECT TO THE SELECTION, PURCHASE, OR USE OF THIS PRODUCT. Any warranties, express or implied, having been made are inapplicable if this product has been used contrary to label instructions, or under abnormal conditions, or under conditions not reasonably foreseeable to (or beyond the control of) seller or FMC, and, to the extent consistent with applicable law, buyer assumes the risk of any such use.

To the extent consistent with applicable law, FMC or seller shall not be liable for any incidental, consequential or special damages resulting from the use or handling of this product. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF FMC AND SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT OR, AT THE ELECTION OF FMC OR SELLER, THE REPLACEMENT OF THE PRODUCT.

This Conditions of Sale and Limitation of Warranty and Liability may not be amended by any oral or written agreement.

RESISTANCE MANAGEMENT (7.0)

Some weeds are known to develop resistance to herbicides that have been used repeatedly. While the development of herbicide resistance is well understood, it is not easily predicted. Therefore herbicides should be used in conjunction with the resistance management strategies in the area. Consult the local or State agricultural advisors for details. If herbicide resistance should develop in the area, this product used alone may not continue to provide sufficient levels of weed control. If the reduced levels of control can not be attributed to improper application techniques, improper use rates, improper application timing, unfavorable weather conditions or abnormally high weed pressure, a resistant strain of weeds may have developed.

To reduce the potential for weed resistance use this product in a rotation program with other classes of chemistry and modes of action. Always apply this product at the recommended rates and in accordance with the use directions. Do not use less than recommended label rates alone or in tank mixtures. Do not use reduced rates of the tank mix partner. For optimum performance, scout fields carefully and begin applications when weeds are smaller rather than larger. If resistance is suspected, contact the local or State agricultural advisors.

GENERAL INFORMATION (8.0)

Crossing CAL Herbicide is a selective soil-applied herbicide for the control of susceptible broadleaf, grass and sedge weeds. Crossing CAL Herbicide is formulated as a 4 pounds per gallon flowable containing the active ingredient, sulfentrazone. **If adequate moisture (1/2" to 1") from rainfall or irrigation is not received within 7 to 10 days after the Crossing CAL Herbicide treatment, a shallow incorporation may be needed to obtain desired weed control.** When activating moisture is received after dry conditions, Crossing CAL Herbicide will provide a reduced level of control of susceptible germinating weeds. Soil applications of Crossing CAL Herbicide must be made before crop seed germination to prevent injury to the emerging crop seedlings. When applications after planting are delayed, injury may occur if seeds are germinating or if they are located near the soil surface

Observe all instructions, crop restrictions, mixing directions, application precautions, replanting directions, rotational crop guidelines and other label information of each product when tank mixing with Crossing CAL Herbicide.

Proper handling instructions: Crossing CAL Herbicide may not be mixed or loaded within 50 feet of any wells (including abandoned wells and drainage wells), sinkholes, perennial or intermittent streams and rivers, and natural or impounded lakes and reservoirs. This setback does not apply to properly capped or plugged abandoned wells and does not apply to impervious pads or properly diked mixing/loading areas.

Operations that involve mixing, loading, rinsing, or washing of this product into or from pesticide handling or application equipment or containers within 50 feet of any well are prohibited unless conducted on an impervious pad constructed to withstand the weight of the heaviest load that may be positioned on or moved across the pad. Such a pad shall be designed and maintained to contain any product spills or equipment leaks, container or equipment rinse or washwater, and rainwater that may fall on the pad. Surface water shall not be allowed to either flow over or from the pad, which means the pad must be self-contained. The pad shall be sloped to facilitate material removal. An unroofed pad shall be of sufficient capacity to contain at a minimum 110% of the capacity of the largest pesticide container or application equipment on the pad. A pad that is covered by a roof of sufficient size to completely exclude precipitation from contact with the pad shall have a minimum containment capacity of 100% of the capacity of the largest pesticide container or application equipment on the pad. Containment capacities as described above shall be maintained at all times. The above specific minimum containment capacities do not apply to vehicles when delivering pesticide shipments to the mixing/loading site. States may have in effect additional requirements regarding wellhead setbacks and operational containment.

Product must be used in a manner that will prevent back siphoning in wells, spills or improper disposal of excess pesticide, spray mixtures or rinsates.

GENERAL APPLICATION INSTRUCTIONS (9.0)

Crossing CAL Herbicide may be applied to soil as a preplant incorporated treatment or as a pre-emergence (prior to weed and/or crop emergence) surface application. Additional application methods include post-plant treatments, over-the-top and layby, in various crops. Application methods are defined in the following Crop Use Directions sections.

Preplant incorporated treatments require a uniform surface application followed by incorporation. Do not incorporate to a depth greater than 2 inches which may result in poor weed control. Care must be taken not to create overlaps in treated zones due to soil movement, which will result in excessive Crossing CAL Herbicide rates that could result in adverse crop response.

All soil applications and the residual activity of post-plant applications of Crossing CAL Herbicide require adequate moisture for herbicidal activation. The ultimate amount of moisture, whether supplied by rainfall or irrigation, is dependent on several factors. These factors include but are not limited to existing soil moisture at application, soil type, organic matter and tilth. In crop situations dependent on rainfall, Crossing CAL Herbicide can await activating moisture for extended periods (10 to 14 days or longer) depending on the soil parameters described above. Once activated, Crossing CAL Herbicide will provide activity on existing weeds. The level of activity will depend on the weed species and their size at time of activation. Where irrigation is not available and rainfall has not provided activation, particularly for surface applications of Crossing CAL Herbicide, a shallow incorporation is recommended for destruction of any germinating weeds and to incorporate Crossing CAL Herbicide. Herbicide incorporation will initiate the process of activation with existing soil moisture. In circumstances where prolonged periods without rainfall and/or irrigation is not possible, alternative or additional weed management practices (cultivation or post-applied herbicides) may be required.

Extreme care must be exercised and the Crop Specific Use Directions followed exactly in crops allowing post plant applications of Crossing CAL Herbicide. Over-the-top and lay-by applications will provide contact and residual weed control, depending on species. The addition of surfactants may increase contact weed control performance but may also increase the risk of adverse crop response as well.

CALIFORNIA ONLY SPECIFIC RESTRICTIONS ON APPLICATIONS OF CROSSING CAL HERBICIDE. (9.1)

Artificial Recharge Basins. Do not use below the high water line inside artificial recharge basins (a surface facility, such as an infiltration pond or basin, or spreading ground that is specifically designed and managed to increase the infiltration of introduced surface water supplies into a ground water basin), unless this product is applied six months or more before the basin is used to recharge ground water.

Unlined Canals and Ditches. Do not use below the high water line inside unlined canals and ditches unless either (a) the pesticide user can document that the percolation rate of the canal or ditch is equal to or less than 0.2 inches per hour (0.002 gallons per minute per square foot), or (b) the pesticide is applied six months before water is run in the canal or ditch.

Rights-of-Way. Do not use on engineered rights-of-way in areas established by the California Department of Pesticide Regulation as leaching or runoff ground water protection areas* unless either (a) any runoff from the treated right-of-way shall pass through a noncrop fully vegetated area adjacent, and equal in area, to the treated area, or spread out onto an adjacent unenclosed fallow field that is at least 300 feet long and that will not be irrigated for six months following application with the exception of the addition of adequate moisture that is required for herbicidal activation following application as described under General Application Instructions, with full consideration of any plantback restrictions, or (b) the property operator complies with any permit issued pursuant to the storm water provisions of the federal Clean Water Act eprtaining to the treated area.

Runoff Ground Water Protection Areas. Do not use in areas identified by the California Department of Pesticide Regulation as a runoff ground water protection areas* unless one of the following management practices can be met:

(a) Soil disturbance. Within seven days before this product is applied, the soil to be treated shall be disturbed by using a disc, harrow, rotary tiller, or other mechanical method. This subsection does not apply to the area to be treated that is immediately adjacent to the crop row and that does not exceed 33 percent of the distance between crop rows or, in citrus, to the band from the tree row to the dripline; or

(b) Incorporation of the pesticide. Within 48 hours after the day this product is applied, the pesticide shall be incorporated on at least 90 percent of the area treated; using a disc, harrow, rotary tiller, or other mechanical method, or by sprinkler or low flow irrigation, including chemigation where allowed by the label, using a minimum of ¼ inch of irrigation water and a maximum of one inch as described under General Application Instructions, at application rates that do not cause surface water runoff from the treated property or to wells on the treated property; or

(c) Band treatment. This product is applied as a band treatment immediately adjacent to the crop row so that not more than 33 percent of the distance between rows is treated or, in citrus, not more than the area from the tree row to the dripline is treated; or

(d) Timing of application. This product is applied between April 1 and July 31; or

(e) Retention of runoff on field. For six months following the application, the field shall be designed, by berms, levees, or nondraining circulation systems, to retain all irrigation runoff and all precipitation on, and drainage through, the field. The retention area on the field shall not have a percolation rate of more than 0.2 inches per hour (5 inches per 24 hours); or

(f) Retention of runoff in a holding area off the field. For six months following the application, all runoff shall be channeled to a holding area off the application site, under the control of the property operator, that is designed to retain all irrigation runoff and all precipitation on, and drainage through, the treated field and all other areas draining into that holding area. The holding area shall not have a percolation rate of more than 0.2 inches per hour (5 inches per 24 hours); or

(g) Runoff onto a fallow field. For six months following application, runoff shall be managed so that it runs into an adjacent unenclosed fallow field at least 300 feet long that is not irrigated for six months after application with the exception of the addition of adequate moisture that is required for herbicidal activation following application as described under General Application Instructions, with full consideration of any plant back restrictions.

Leaching Ground Water Protection Areas. Do not use in areas designated by the California Department of Pesticide Regulation as leaching ground water protection areas* unless either (a) the user does not apply any irrigation water for six months following application of this product or (b) the user applies this product to the planting bed or the berm above the level of irrigation water in the furrow or basin and the water level shall remain at or below that level for six months following application of the pesticide with the exception of the addition of adequate moisture that is required for herbicidal activation following application as described under General Application Instructions, or (c) irrigation is managed so that the ratio of the amount of irrigation water applied divided by the net irrigation requirement is 1.25 or less for six months following application of this product.

* Consult with your County Agricultural Commissioner to determine whether the application will be within an area designated by the California Department of Pesticide Regulation as either a Runoff Ground Water Protection Area or a Leaching Ground Water Protection Area. Details regarding the locations of these Areas are also available via the internet at www.cdpr.ca.gov/docs/emon/ grndwtr/gwp_regs.htm.

CROSSING CAL HERBICIDE PRODUCT USE RATES (10.0)

The following directions for the selection of Crossing CAL Herbicide application rates are critical to achieve maximum performance and to insure maximum crop safety. The user is required to read and follow the specific Crossing CAL Herbicide use directions and restrictions for each crop as defined in subsequent sections of this label. The user is cautioned that some crops respond differently to Crossing CAL Herbicide. This response is governed by the Crossing CAL Herbicide application rate, various soil factors and inherent crop sensitivity. The Crop Specific Use Directions have been designed to minimize the risk of adverse crop response while maintaining optimum weed control.

Mode of Action (10.1)

Sulfentrazone, the active ingredient in Crossing CAL Herbicide, is a potent inhibitor of the enzyme Protoporpyrinogen Oxidase IX (PPO IX) required for the formation of chlorophyll. Inhibition of PPO IX enzyme results in the liberation of singlet oxygen (O) that, in turn, disrupts cellular membranes and causes cellular leakage. The ultimate manifestation of the process is cellular death leading to plant death. The selective herbicidal activity of sulfentrazone is based on its greater affinity for the PPO IX enzyme in weed species versus crop plants.

Mechanism of Action (10.2)

Following the application of Crossing CAL Herbicide to soil, germinating seeds and seedlings take up sulfentrazone from the soil solution. The amount of sulfentrazone in soil solution, and available for weed uptake, is determined primarily by soil type, organic matter and soil pH. Sulfentrazone adsorbs to the clay and organic matter (OM) fractions of soils; effectively limiting the amount of active ingredient immediately available to control weeds. Soils typically increase in clay content through the series from coarse to fine as noted in the following Soil Classification Chart, Table 1.

SOIL CLASSIFICATION CHART

Table 1

COARSE	MEDIUM	FINE
Sand	Sandy clay loam	Silty clay loam
Loamy sand	Sandy clay	Silty clay
Sandy loam	Loam	Clay loam
	Silt loam	Clay
	Silt	

Influence of Soil type, organic matter and pH on Crossing CAL Herbicide Use Rates and Crop Response

Soil organic matter content can vary widely and independently of soil type and requires an accurate analysis of representative soil samples to determine its content.

Soil pH also exerts a dramatic affect on sulfentrazone availability in the soil solution. As soil pH increases, sulfentrazone availability increases. Accurate soil pH information will require an accurate analysis of representative soil samples.

The total amount of sulfentrazone available in solution, in any given soil, is determined by the interaction of soil type (clay content), % organic matter and pH. The application timing (relative to the emergence of the crop and weeds) and amount of rainfall and/or irrigation received will ultimately determine, in conjunction with the soil parameters and pH, the amount of sulfentrazone in soil solution. It is important to note that Crossing CAL Herbicide can await activating moisture. However, diminished weed control may result due to the successive increase in weed growth versus timing of activation.

It is important to note that irrigation with highly alkaline water (high pH) following a Crossing CAL Herbicide soil application can also significantly increase the amount of sulfentrazone available in the soil solution. Irrigation with water having a pH greater than 7.5 could result in adverse crop response. This response will ultimately depend on initial Crossing CAL Herbicide application rate, timing, amount and pH of irrigation water and sensitivity of the crop and it's growth stage when irrigated. The risk of adverse crop response will lessen with the advance in growth stage among most crops.

The following Crop Specific Use Directions have been designed with specific Crossing CAL Herbicide recommendations for each crop based on the soil type, soil organic matter, and soil pH interactions described above. The user is cautioned that crop tolerance and weed control performance are based on strict adherence to these recommendations.

APPLICATION INFORMATION (11.0)

Ground Application

Utilize a boom and nozzle sprayer equipped with the appropriate nozzles, spray tips and screens and adjusted to provide optimum spray distribution and coverage at the appropriate operating pressures. Utilize nozzles that produce minimal amounts of fine spray droplets to avoid spray drift or inadequate foliar and/or soil coverage. Apply a minimum of 10 gallons of finished spray per acre by ground. Be aware that overlaps and slower ground speeds while starting, stopping or turning while spraying may result in excessive application and subsequent crop response.

Do not apply when wind speed favors drift beyond the area intended for treatment.

Aerial Application (11.2)

Use nozzle types and arrangements that will provide optimum coverage while producing a minimal amount of fine droplets. Apply sufficient spray volume to achieve adequate coverage. Apply a minimum of 5 gallons of finished spray per acre.

Do not apply when wind speed favors drift beyond the area intended for treatment.

Chemigation Application (11.3)

Crossing CAL Herbicide may be applied through sprinkler irrigation systems including center pivot, lateral move, end tow, solid set, or hand move irrigation systems. Do not apply this product through any other type of irrigation system. Do not connect any irrigation system (including greenhouse systems) used for pesticide application to a public water system. Crop injury, lack of effectiveness or illegal residues on or in the crop can result from non-uniform distribution of treated water. If you have questions about calibration, you should contact State Extension Service specialists, equipment manufacturers, or other experts. A person knowledgeable of the chemigation system and responsible for its operation, or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.

It is important to note that irrigation with highly alkaline water (high pH) following a Crossing CAL Herbicide soil application can also significantly increase the amount of sulfentrazone available in soil solution. Irrigation with water having a pH greater than 7.5 could result in adverse crop response. This response will ultimately depend on initial Crossing CAL Herbicide application rate, application timing, amount and pH of the irrigation water, and the sensitivity of the crop and the growth stage when irrigated. The risk of adverse crop response will lessen with advancing growth stages of most crops.

The system must contain a functional check valve, vacuum relief valve, and low-pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow. The pesticide injection pipeline must also contain a functional automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump. The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops. The irrigation line or water pump must include a functional pressure switch, which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.

Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

Crossing CAL Herbicide should be metered into the irrigation system continuously for the duration of the water application. Crossing CAL Herbicide should be diluted in sufficient volume to insure accurate application over the area to be treated. Use the appropriate amount of water to carry the product to the soil surface. Continuous agitation is required to maintain product suspension in the solution tank. A jar test should be conducted to ensure that phase separation would not occur during dilution and application. Failure to achieve a uniform dilution throughout the time of application may result in undesirable residues or less than desirable weed control. Flush the lines at the completion of the application and then turn the water off promptly.

When using water from public water systems; DO NOT APPLY Crossing CAL Herbicide THROUGH ANY IRRIGATION SYSTEM **PHYSICALLY CONNECTED** TO A PUBLIC WATER SYSTEM. Public water system means a system for the provision to the public of piped water for human consumption if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days of the year. Crossing CAL Herbicide may be applied through irrigation systems, which may be **supplied** by a public water system **only if** water from the water system is discharged into a reservoir tank prior to pesticide introduction. There shall be a complete physical break (air gap) between the outlet end of the fill pipe and to top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe. Before beginning chemigation, always make sure that the air gap exists and that there is no blockage of the overflow of the reservoir tank.

Application with Dry Fertilizers (11.40)

Crossing CAL Herbicide may be applied impregnated on dry fertilizers. When applied as directed with adequate soil coverage, Crossing CAL Herbicide dry bulk fertilizer mixtures will provide satisfactory weed control.

Follow all Crossing CAL Herbicide label directions regarding product use rates per acre, registered crops, incorporation, special instructions and precautions.

Apply Crossing CAL Herbicide/dry fertilizer mixtures with ground equipment only.

All individual state regulations relating to dry bulk fertilizer blending, registration, labeling, and application are the responsibility of the individual and/or company preparing, storing, transporting, selling or applying the Crossing CAL Herbicide /dry fertilizer mixture.

Impregnation Directions (11.41)

To impregnate Crossing CAL Herbicide on dry bulk fertilizer, use a closed rotary-drum mixer or other commonly used dry bulk fertilizer blender equipped with suitable spray equipment.

Prepare a slurry of Crossing CAL Herbicide in a clean container using clear water. Slowly add the Crossing CAL Herbicide /water slurry to the impregnation spray tank and finish filling as needed with clear water. Spray nozzles must be placed to provide uniform coverage of Crossing CAL Herbicide onto the fertilizer during mixing.

Refer to the SPRAYER EQUIPMENT CLEAN-OUT section for directions for cleaning impregnation equipment, transport equipment, loading equipment and application equipment.

Apply the Crossing CAL Herbicide dry bulk fertilizer with an accurately calibrated dry fertilizer spreader. The Crossing CAL Herbicide dry bulk fertilizer mixture must be spread uniformly on the soil surface. Uneven spreading leaving untreated areas can cause poor weed control or overlapping areas with potential increased Crossing CAL Herbicide use rates could result in possible crop response.

A minimum of 200 pounds of dry bulk fertilizer impregnated with the recommended amount of Crossing CAL Herbicide must be applied per acre to achieve adequate soil coverage for satisfactory weed control.

DO NOT impregnate Crossing CAL Herbicide onto coated ammonium nitrate or limestone because these materials will not absorb the herbicide.

Refer to the appropriate crop section of the Crossing CAL Herbicide label to determine the rate of Crossing CAL Herbicide to be applied per acre. Use the following table to determine the amount of Crossing CAL Herbicide to be impregnated on a ton (2000 pounds) of dry bulk fertilizer based on the rate of fertilizer that will be applied per acre.

For those rates not listed in the following table, calculate the amount of Crossing CAL Herbicide to be impregnated on a ton of dry bulk fertilizer using the following formula:

$$\frac{2000}{\text{Pounds dry fertilizer per acre}} \times \text{Crossing CAL use rate in fluid ounces per acre} = \text{ounces of Crossing CAL to be applied per ton of fertilizer}$$

RATE CHART FOR IMPREGNATION OF DRY BULK FERTILIZERS WITH CROSSING CAL Herbicide
Table 2

	Ounces Crossing CAL Herbicide per ton of fertilizer		
	Crossing CAL Herbicide Use Rate Per Acre		
Dry Fertilizer Rate (lb/acre)	8.0 Fluid Ounces per Acre	10.1 Fluid Ounces per Acre	12.0 Fluid Ounces per Acre
200	80	101	120
250	64	80.8	96
300	53.3	67.3	80
350	45.7	57.7	68.6
400	40	50.5	60
450	35.6	44.9	53.3

Application with Liquid Fertilizer (11.42)

Crossing CAL Herbicide may be applied using liquid fertilizer solutions as the carrier. The fertilizer solutions may either be concentrate formulations as blended or diluted with water. When applied as directed with adequate soil coverage, Crossing CAL Herbicide applied with liquid fertilizer mixtures will provide satisfactory weed control. However, adequate soil coverage is essential to achieve acceptable levels of weed control.

Herbicide mixing, solution stability and/or compatibility problems can occur when liquid fertilizers are used as a carrier. Compatibility tests must be conducted prior to mixing to insure tank mixture compatibility and stability. The use of compatibility agents may be beneficial to achieve and maintain a homogenous solution.

Mixing Instructions for Liquid Fertilizer Applications (11.43)
Fill the clean spray tank to one half of the total volume with the fertilizer solution. Start the spray tank agitation system. Prepare a slurry of Crossing CAL Herbicide in a clean container with clean water using equal volumes of Crossing CAL Herbicide and clean water. Slowly add the Crossing CAL Herbicide /water slurry to the spray tank. Carefully rinse the slurry container, adding the rinsate to the spray tank. Better mixing of the Crossing CAL Herbicide /water slurry may be achieved if the slurry is added using induction systems on the sprayer fill plumbing system.

Complete filling the spray tank to the desired level. Sufficient and continuous spray tank agitation is required at all times to maintain a homogenous spray solution. The spray system must be designed such that there is sufficient flow capacity to uniformly apply the spray mixture and maintain adequate tank agitation. Some systems may require separate pumps to simultaneously supply the spray system and the spray tank agitation system. Insure the Crossing CAL Herbicide slurry is thoroughly mixed before application.

For tank mixtures with other herbicide(s), a compatibility test must be conducted to insure product compatibility before mixing. Read and follow all the directions, precautions and restrictions of the tank mixture products prior to mixing.

Apply the Crossing CAL Herbicide spray mixture immediately after mixing. Do not store the sprayer overnight or for any extended period of time with the Crossing CAL Herbicide spray mixture remaining in the tank.

Do not premix Crossing CAL Herbicide spray solutions in nurse tanks.

Follow all Crossing CAL Herbicide label directions regarding product use rates per acre, registered crops, application instructions, incorporation directions, special instructions and all precautions.

All individual state regulations relating to liquid fertilizer blending, storage, transportation, registration, labeling, and application are the responsibility of the individual and/or company preparing, selling or applying the Crossing CAL Herbicide and fertilizer mixture.

SPRAY DRIFT REDUCTION ADVISORY (12.0)

To avoid drift, do not apply when wind speeds exceed 10 mph. Do not exceed spray pressures of 40 psi unless specified by the manufacturer of drift reducing spray tips and nozzles.

Spray Drift Management (12.1)
AVOIDING SPRAY DRIFT AT THE APPLICATION SITE IS THE RESPONSIBILITY OF THE APPLICATOR AND THE GROWER.

The interaction of many equipment and weather related factors determine the potential for spray drift. The applicator and the grower are responsible for considering all these factors when making decisions.

The following drift management requirements must be followed to avoid off-target movement from aerial applications. These requirements do not apply to forestry applications, public health uses or to applications of dry materials.

1. The distance of the outermost nozzles on the boom must not exceed ¾ the length of the wingspan or rotor.
2. Nozzles must always point backward parallel with the air stream and never be pointed downwards more than 45 degrees.
3. Observe the regulations of the State where applications are made.
4. Applicators must observe and abide by the requirements of the Aerial Drift Reduction Advisory.

Information on Droplet Size
The most effective way to reduce drift potential is to apply large droplets. The best drift management strategy is to apply the largest droplets that provide sufficient coverage for pesticide performance. Applying larger droplets reduces drift potential but will not prevent drift if applications are made improperly or under unfavorable environmental conditions. (See information on Wind, Temperature and Humidity, and Temperature Inversions in subsequent sections).

Controlling Spray Droplet Size (12.3)
Volume – Use high flow rate nozzles to apply the greatest practical spray volume. Nozzles with higher rated flow generally produce larger droplets.

Pressure - When higher flow rates are needed, use higher flow rate nozzles rather than increasing spray pressure.

Do not exceed the nozzle manufacturer's recommended pressures. Lower pressure produces larger droplets in many types of nozzles.

Number of Nozzles – Use the minimum number of nozzles that provide uniform coverage.

Nozzle Orientation – For aerial application, the recommended practice is to orient nozzles so that the spray is released parallel to the airstream. This orientation usually produces larger droplets as compared to other nozzle orientations. Significant nozzle deflection from horizontal will reduce droplet size and increase drift potential.

Nozzle Type - Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low drift nozzles for both ground and aerial applications. Solid stream nozzles oriented straight back usually produce the largest droplets and the lowest drift potential in aerial applications

Boom Length – For some aerial use patterns, reducing the effective boom length to less than ¾ of the wingspan or rotor length may further reduce drift without reducing swath width.

Application Height - Aerial applications should not be made at a height greater than 10 feet above the top of the target plant canopy unless a greater height is required for aircraft safety. Making applications at the lowest height that is safe reduces exposure of droplets to evaporation and wind.

Swath Adjustment – When aerial applications are made with a crosswind, the swath will be displaced downwind. Therefore, on the upwind and downwind edges of the field, the applicator must compensate for this displacement by the path of the aircraft upwind. Swath adjustment or offset distance should increase when conditions favor increased drift potential (higher winds, smaller droplets, etc).

Wind – Drift potential is lowest between wind speeds of 3-10 mph. However, many factors, including droplet size and equipment type determine drift potential at any given wind speed. Application should be avoided below 3 mph due to variable wind direction and high inversion potential. NOTE: Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they may potentially affect spray drift .

Temperature and Humidity – When making applications in low relative humidity, set up equipment to produce larger droplets to compensate for evaporation. Droplet evaporation is most severe when conditions are both hot and dry.

Temperature Inversions – Applications should not occur during a temperature inversion because drift potential is high. Temperature inversions restrict vertical air mixing, which causes small-suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions due to the low speed and variable winds common during inversions. Temperature inversions are characterized by increasing temperatures with altitude and are common during conditions of limited cloud cover and little to no wind. They often begin to form as the sun sets and may often continue into the morning. The presence of a temperature inversion may be indicated by ground fog. However if fog is not present, the movement of smoke from a ground source or an aircraft smoke generator can also identify inversions. Smoke that remains in layers and moves laterally in a concentrated cloud (under low speed wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.

Sensitive Areas – The pesticide should only be applied when the wind is blowing away from sensitive areas (e.g. residential areas, bodies of water, known habitat for threatened or endangered species, non-target crops).

Off-Target Movement of Crossing CAL Herbicide
Drift of dilute spray mixtures containing Crossing CAL Herbicide must be prevented. Observation of the preceding environmental conditions, correct application equipment design, calibration and application practices will significantly diminish the risk of off-target spray drift. Crossing CAL Herbicide can cause significant symptomology by drift on to sensitive crops and other plants. This symptomology may manifest initially as discreet, localized spots where contacted by Crossing CAL Herbicide drift mixtures. Depending on concentration of the spray solution and droplets size (effectively determining the dosage of sulfentrazone) and also depending on the inherent sensitivity of the plants involved, these spots or lesions may or may not coalesce. These effects will usually not have lasting effects on plant growth, but will likely reduce the value of affected fruit or foliage where grade or quality is associated with appearance. In severe drift instances with particularly sensitive crops, defoliation of affected foliage could result. Failure to follow these

guidelines and environmental prohibitions that the sult in off-target movement or drift of Crossing CAL erbicide on to unintended crops or plants, irrespective of severity, constitutes misapplication is product. FMC accepts no responsibility or liability potential crop effects that may result from such misapplication of Crossing CAL Herbicide.

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MAXIMUM ALLOWABLE CROSSING CAL HERBICIDE USE PER ACRE PER 12 MONTH PERIOD* (13.0)

Refer to the crop section of this label for specific product use directions.
Table 3

Crop	Ounces Crossing CAL Herbicide Per Acre	Pound Active Sulfentrazone Per Acre
Row Crops		
Corn	12.0	0.375
Fallow	8.0	0.25
Peanuts	9.6	0.30
Potatoes	8.0	0.25
Soybeans	12.0	0.375
Sugarcane	12.0	0.375
Sunflowers	8.0	0.25
Tobacco	8.0	0.375
Vegetable Crops		
Asparagus	12.0	0.375
Cabbage	12.0	0.375
Dry Beans & Peas	8.0	0.25
Horseradish	8.0	0.25
Oil Crops		
Mint	12.0	0.375

*The total allowed usage per twelve-month period includes all applications made to the field per twelve-month interval. This includes fallow treatments, burndown treatments, planting time and all in-season treatments. The twelve-month period is considered to begin upon the initial Crossing CAL Herbicide application.

CROP ROTATIONAL RESTRICTIONS (14.0)

The following Table 4 shows the minimum interval in months from the time of the last Crossing CAL Herbicide application until Crossing CAL Herbicide treated soil can be replanted to the crops listed. When Crossing CAL Herbicide is tank mixed with another herbicide, refer to the partner label for recropping instructions, following the directions that are most restrictive.

For all other crops not listed below, the rotational interval is a minimum of 12 months. Some crops have rotational intervals greater than 12 months after a Crossing CAL Herbicide application due to potential crop injury. A representative bioassay of the field shall be completed with the rotational crop to accurately determine the planned crop's sensitivity to sulfentrazone.

CROP ROTATIONAL RESTRICTIONS**
Table 4

Crop	Interval (Months)
Asparagus	Anytime
Barley	4
Cabbage	Anytime
Canola	24
Cereal Grains (Buckwheat, Oats, Pearl Millet, Proso Millet, Teosinte, Wild Rice)	12
Corn, Field	10
Corn, Pop	18
Corn, Sweet	18
Cotton	18
Dry Shell Peas and Beans	Anytime
Horseradish	Anytime
Limas	Anytime
Mint	Anytime
Peanuts	Anytime
Potatoes	Anytime
Rice	10
Rye	4
Sorghum	10 *
Soybeans	Anytime
Sugar Beets	36
Sugarcane	Anytime
Sunflowers	Anytime
Sweet Potatoes	12
Triticale	4
Tobacco	Anytime
Turf	Anytime
Wheat	4

*Sorghum – 18-month rotation for rates above 8.0 oz/acre
**For all other crops not listed, the rotation interval is a minimum of 12 months.

BAND TREATMENT APPLICATIONS (15.0)

For band treatments, apply the broadcast equivalent rate and volume per acre. To determine these:

Band Width Inches / Row Width Inches	X	Broadcast Rate Per Acre	=	Band Rate
Band Width Inches / Row Width Inches	X	Broadcast Volume Per Acre	=	Band Volume

MIXING AND LOADING INSTRUCTIONS (16.0)

Crossing CAL Herbicide may be applied alone, or in tank mixtures with other herbicides for the control of additional weed species. Mixtures with some other pesticides have not been tested. Conduct appropriate compatibility tests prior to tank mixing with other pesticides. Follow all precautions and restrictions on the tank mix partner label.

It is important that spray equipment is clean and free of existing pesticide residues before preparing Crossing CAL Herbicide spray mixtures. Follow the spray tank clean out procedures specified on the label of the product or products previously applied.

For best results fill spray tank with one half of the volume of clean water needed for the field to be treated. Start agitation system. Prepare a slurry of Crossing CAL Herbicide in a clean container using clean water. Slowly add the Crossing CAL Herbicide /water slurry to the spray tank. Carefully rinse the slurry container, adding the rinsate to the spray tank. Complete filling the spray tank to the desired level. Continuous spray tank agitation is required at all times to maintain a uniform spray solution.

Make sure Crossing CAL Herbicide is thoroughly mixed before application or before adding another product to the spray tank.

Use the Crossing CAL Herbicide spray mixture immediately after mixing. Do not store the sprayer overnight or for any extended period of time with the Crossing CAL Herbicide spray mixture remaining in the tank.

Do not premix Crossing CAL Herbicide spray solutions in nurse tanks.

If Crossing CAL Herbicide is tank mixed with other herbicides, all additional directions, restrictions and precautions for the tank mixture herbicides must be followed.

SPRAYER EQUIPMENT CLEAN-OUT (17.0)

As soon as possible after spraying Crossing CAL Herbicide and before using sprayer equipment for any other applications, the sprayer must be thoroughly cleaned to avoid potential crop affects using the following procedure. Residues left in mixing equipment, spray tanks, hoses, spray booms and nozzles can cause crop effects if they are not properly cleaned. In addition, users must take appropriate steps to ensure proper equipment clean-out for any other products mixed with Crossing CAL Herbicide as required on the other product labels. More complete cleaning can be achieved if the spray system is cleaned immediately following the application.

1. Drain sprayer tank, hoses, spray boom and spray nozzles. Use a high-pressure detergent wash to remove physical sediment and residues from the inside of the sprayer tank and thoroughly rinse. Then, thoroughly flush sprayer hoses, spray boom and spray nozzles with a clean water rinse. Remove and clean spray tips and all filters and screens (tank, spray hose and spray tips) separately in the ammonia solution of Step 2.

2. Next, prepare a sprayer cleaning solution by adding three gallons of ammonia (containing at least 3% active) per 100 gallons of clean water. Prepare sufficient cleaning solution to allow the operation of the spray system for a minimum of 15 minutes to thoroughly flush hoses, spray boom and spray nozzles.

3. Convenient and thorough cleaning of the sprayer can be achieved if the ammonia solution or fresh water is left in the spray tank, hoses, spray booms and spray nozzles overnight or during storage.

4. Before using the sprayer, completely drain the sprayer system. Rinse the tank with clean water and flush through the hoses, spray boom, and spray nozzles with clean water. Remove and clean spray tips and all filters and screens (tank, spray hose and spray tip) separately in an ammonia solution.

5. Properly dispose of all cleaning solution and rinsate in accordance with Federal, State, and local regulations and guidelines.

Do not apply sprayer cleaning solutions or rinsate to sensitive crops.

Do not store the sprayer overnight or for any extended period of time with Crossing CAL Herbicide spray solution remaining in the tank, spray lines, spray boom plumbing, spray nozzles or strainers.

If the sprayer has been stored or idle, purge the spray boom and nozzles with clean water before beginning any application.

Should small quantities of Crossing CAL Herbicide remain in inadequately cleaned mixing, loading and/or spray equipment, they may be released during subsequent applications potentially causing effects to certain crops and other vegetation. FMC accepts no liability for any effects due to inadequately cleaned equipment.

Do not drain of flush equipment on or near desirable trees or plants.

Do not contaminate any body of water including irrigation water that may be used on other crops.

WEEDS LIST (18.0)

When Crossing CAL Herbicide is applied in accordance with the General Application information and the specific crop use directions, Crossing CAL Herbicide applied alone or in recommended tank mixtures will provide control of the following weeds. Refer to the specific crop section.

Table 5

Scientific Name	Scientific Name
Amaranth, livid	*Amaranthus lividus*
Amaranth, Palmer	*Amaranthus palmeri*
Amaranth, Powell	*Amaranthus Powell II*
Amaranth, spiny	*Amaranthus spinosus*
Amaranth, spleen	*Amaranthus dubius*
Anoda, spurred	*Anoda cristata*
Bedstraw, catchweed	*Galium aparine*
Carpetweed	*Mollugo verticillata*
Chickweed, common	*Stellaria media*
Copperleaf, hophornbeam	*Acalypha ostryeafolia*
Copperleaf, Virginia	*Acalypha virginica*
Crabgrass, large	*Digitaria sanguinalis*

Crabgrass, smooth	*Digitaria isc[illegible]num*
Crabgrass, Southern	*Digitaria ciliaris*
Croton, tropic	*Croton glandulosus*
Crownbeard, golden	*Verbesina encelioides*
Cupgrass, wooly	*Erichloa villosa*
Cyperus, hedgehog	*Cyperus compressus*
Daisy, American	*Eclipta alba*
Devilsclaw	*Proboscidea louisiana*
Dock, curly	*Rumex crispus*
Eclipta	*Eclipta prostrata*
Filaree, redstem	*Erodium cicutarium*
Flixweed	*Descurainia sophia*
Galinsoga, hairy	*Galinsoga ciliata*
Goosegrass	*Eleusine indica*
Groundcherry, clammy (seedling)	*Physalis heterophylla*
Groundcherry, cutleaf	*Physalis angulata*
Jimsonweed	*Datura stramonium*
Kochia (ALS and Triazine Resistant)	*Kochia scoparia*
Ladysthumb	*Polygonum persicaria*
Lambsquarters, common	*Chenopodium album*
Lettuce, miners	*Montia perfoliata*
Mallow, common	*Malva neglecta wall r.*
Mayweed, Chamomile	*Anthemis cotula l.*
Milkweed, honeyvine	*Ampelamus albidus*
Morningglory, entireleaf	*Ipomoea hederacea integriuscula*
Morningglory, ivyleaf	*Ipomoea hederacea hederacea*
Morningglory, palmleaf	*Ipomoea wrightii*
Morningglory, purple	*Ipomoea turbinata*
Morningglory, red	*Ipomoea, coccinea L.*
Morningglory, scarlet	*Ipomoea coccinea*
Morningglory, smallflower	*Jacquemontia tamnifolia*
Morningglory, tall	*Ipomoea, purpurea*
Mustard, tumble	*Sisybrium altissimum*
Nightshade, black	*Solanum nigrum*
Nightshade, Eastern black	*Solanum ptycanthum*
Nutsedge, purple	*Cyperus rotundus*
Nutsedge, yellow	*Cyperus esculentus*
Orchardgrass	*Dactylis glomerata*
Panicum, fall	*Panicum dichotomiflorum*
Pigweed, redroot	*Amaranthus retroflexus*
Pigweed, smooth	*Amaranthus hybridus*
Plantain, blackseed	*Plantago rugelii decne*
Plantain, narrow-leaved	*Plantago lanceolata*
Poorjoe	*Diodia teres*
Porophyllum	*Porophyllum rederale*
Poinsettia, wild	*Euphorbia heterophylla*
Purslane, common	*Portulaca oleracea*
Redmaids	*Calandrinia ciliata*
Redweed	*Melochia corchorifolia*
Sedge, annual	*Carex spp.*
Senna, coffee	*Cassia occidentalis*
Sheperdspurse	*Capsella bursa-pastoris*
Sida, prickly	*Sida spinosa*
Sida, Southern	*Sida acuta*
Signalgrass, broadleaf	*Brachiaria platyphylla*
Smartweed, PA (seedling)	*Polygonum pensylvanicum*
Smellmellon	*Cucumis melo*
Starbur, bristly	*Acanthospermum hispidum*
Stinkgrass	*Eragrostis cilianensis*
Toadflax, yellow	*Linaria vulgaris*
Tassleflower, red	*Emilio sonchifolia*
Thistle, Russian	*Salsola kali*
Waterhemp, common	*Amaranthus rudis*
Waterhemp, tall	*Amaranthus tuberculatos*
Waterprimrose, winged	*Ludwigia decurrens*
Witchgrass	*Panicum capillare*

REPLANTING INSTRUCTIONS (20.0)

If initial planting of labeled crops fails to produce a stand, only labeled crops for Crossing CAL Herbicide or the tank mix partner; whichever is most restrictive, may be planted. Do not retreat field with Crossing CAL Herbicide or other herbicide containing sulfentrazone. Do not plant treated fields with any crop at intervals that are inconsistent with the Rotational Crop Guidelines on this label. When replanting use minimum soil tillage to preserve the herbicide barrier and achieve maximum weed control.

ROW CROPS

CORN (Field Corn, Seed Corn, Popcorn) (For Use Only with GMO Varieties Tolerant to PPO Herbicides) (20.0)

Table 6

Crossing CAL Use Rate Table (Corn) Fall, Spring Early Preplant, Preemergence, and Preplant Incorporated Applications			
Broadcast Rate	**Fluid Ounces Crossing CAL per acre**		
	Soil Texture		
% Organic Matter	**Coarse**	**Medium**	**Fine**
<1.5	3.0 – 4.5	3.0 – 4.5	3.75 – 5.25
1.5-3.0	3.0 – 4.5	3.75 – 6.0	4.5 – 6.75
>3	3.75 – 6.0	4.5 – 6.75	6.0 – 8.0
Refer to the previous information on soil types under the COARSE, MEDIUM, and FINE categories Use higher rates for soils of pH less than 7.0 and lower rates for pH greater than 7.0 within the rate range.			

Preplant (Fall Applications) (20.1)
Crossing CAL Herbicide may be applied in the fall as a preplant treatment prior to corn planting the following spring.

Crossing CAL Herbicide can be used alone or in a tank mixture with other herbicides to control susceptible broadleaves, sedges and grasses in corn. Apply Crossing CAL in conventional tillage or conservation tillage (reduced tillage or no-tillage) cropping systems using rates recommended in the Table 6. Crossing CAL Herbicide should be applied to the stubble or soil surface and allow moisture from rainfall or snow to move the product into the soil. Do not mechanically incorporate in the fall or spring as this operation can destroy the herbicide barrier allowing weed escapes to occur. Do not apply to frozen soils or existing snow cover to prevent Crossing CAL Herbicide runoff from rain or snowmelt that may occur following application. Crossing CAL Herbicide may be tankmixed with other burndown herbicides to control emerged weeds in the fall or residual soil herbicides that are labeled for fall use on corn. Select the correct Crossing CAL Herbicide use rate for corn from the Table 6 for your soil type and organic matter. Due to the extended period of time between the fall application and corn planting, the use rate of Crossing CAL Herbicide should be the mid to high rate within the rate range for the appropriate soil type and organic matter.

Early Preplant and Preemergence (Spring Applications) (20.2)
Crossing CAL Herbicide may be applied preplant on the soil surface in the spring to control weeds in conventional and conservation tillage systems. Crossing CAL Herbicide can be applied from 45 days prior to planting until 3 days after planting as a preemergence broadcast or banded soil application if corn seedlings have not broken the soil surface and if the seed furrow is completely closed. For preemergence applications 14 to 45 days prior to planting, use the mid to high rate in the appropriate rate range for the soil and organic matter type listed in Table 6. Crossing CAL Herbicide can be tank mixed with other herbicides labeled for use in corn. To control insect pests such as cutworm or armyworm that may be present, Crossing CAL Herbicide may be tankmixed with insecticides including Mustang Max or Capture 2EC. If dry conditions persist following preemergence application of Crossing CAL Herbicide, a shallow incorporation may be needed to activate the herbicide. If weeds are emerged at the time of Crossing CAL Herbicide application, use a burndown herbicide in conjunction with Crossing CAL as needed. When planting into soil treated preplant with Crossing CAL Herbicide, minimize soil disturbance to maintain the herbicide barrier on the soil surface to achieve maximum weed control. Observe all precautions, instructions, and rotational cropping guidelines of each product's label when tank mixing, including all references to potential carryover and crop injury warnings or restrictions.

Preplant Incorporated (20.3)
Crossing CAL Herbicide may be applied as a Preplant Incorporated treatment in the spring prior to planting in reduced and conventional tillage corn. Crossing CAL Herbicide should be shallowly incorporated or mixed thoroughly into the soil to a maximum depth of 2 inches using a correctly adjusted implement such as a field cultivator, field finisher or disk harrow. Incorporating Crossing CAL Herbicide deeper than 2 inches may result in inconsistent weed control. Use the appropriate rate from Table 6 for the soil texture, organic matter, and pH level of the soil. Crossing CAL Herbicide can be tankmixed with other soil-applied herbicides and insecticides labeled for preplant incorporation in corn. Observe all precautions, instructions, and rotational cropping guidelines of each product's label when tank mixing, including all references to potential carryover and crop injury warnings or restrictions.

Crossing CAL Herbicide may be applied more than once to the same crop in split or sequential applications to provide season-long control of difficult-to-control existing or late emerging weeds.

Precautions
These Crop Specific Use directions are based upon the interactive effects of Crossing CAL Herbicide (sulfentrazone) and the primary soil and environmental factors, which affect its activity on various weed species and tolerance among crops. The user is required to observe the instructions and guidance previously presented under General Application Instructions, General Crossing CAL Herbicide Product Use Rates, Rotational Crop Guidelines, Replanting Instructions, Weed Controlled and any other section of this label pertinent to the anticipated crop use. It is important to note that not all varieties or cultivars of a given crop species have been evaluated under treatment with Crossing CAL Herbicide. Consult university or extension weed management specialists for additional information on specific local varieties or cultivars and any other pertinent information on Crossing CAL Herbicide under specific local conditions.

Restrictions
Do not apply more than 12.0 fluid ounces (0.375 pound active) per twelve-month period. The twelve-month period is considered to begin upon the initial Crossing CAL Herbicide application.

Do not use on soils classified as sand, which have less than 1% organic matter.

Do not apply to frozen soils or existing snow cover to prevent Crossing CAL Herbicide runoff from rain or snowmelt that may occur following application.

FALLOW OR POST HARVEST BURNDOWN (21.0)

Crossing CAL Herbicide may be applied in the fall following crop harvest or in existing fallow fields of asparagus, cabbage, corn, dry shell peas and beans, horseradish, limas, mint, peanuts, potatoes, soybeans, sugarcane, sunflowers and tobacco.

Table 7

Crossing CAL Herbicide Use Rate Table (Fallow or Post Harvest Burndown) Fall and Spring Fallow Applications			
Broadcast Rate	**Fluid Ounces Crossing CAL Herbicide per acre**		
	Soil Texture		
% Organic Matter	**Coarse**	**Medium**	**Fine**
<1.5	3.0 – 3.75	3.0 – 4.5	3.75 – 5.25
1.5-3.0	3.75 – 5.25	3.75 – 6.0	4.5 – 6.75
>3	4.5 – 6.0	4.5 – 8.0	5.25 – 8.0
Refer to the previous information on soil types under the COARSE, MEDIUM, and FINE categories Use higher rates for soils of pH less than 7.0 and lower rates for pH greater than 7.0 within the rate range.			

Fall Application (21.1)
Crossing CAL Herbicide may be applied in the fall following crop harvest or in existing fallow fields to control or suppress weeds the following season. The Crossing CAL Herbicide Rotational Crop Guidelines in Table 4 must be followed if crops are planted the next season. Crossing CAL Herbicide should be applied to the harvested crop stubble or soil surface without incorporation. Moisture in the form of rain or snow will move and activate the product. Do not mechanically incorporate in the fall or spring after application because this activity may destroy the herbicide barrier and weed escapes can occur. Do not apply to frozen soils to prevent Crossing CAL Herbicide runoff from rain or snow that may occur following application. Crossing CAL Herbicide may be tankmixed with herbicides to control emerged weeds. Sequential applications may be needed depending on weed size. In situations where weed size may interfere with Crossing CAL Herbicide reaching the soil surface, a separate burndown application prior to the application of Crossing CAL Herbicide will be required. Use full, recommended rates of burndown herbicides in combination with Crossing CAL Herbicide, or sequential applications as needed. Higher aerial spray volumes are required when there is a dense weed population or canopy.

Crossing CAL Herbicide can be tankmixed with other herbicides. Observe all precautions, instructions, and rotational cropping guidelines of each product's label when tank mixing, including all references to potential carryover and crop injury warnings or restrictions.

Spring Preemerge Application (21.2)
Crossing CAL Herbicide may be applied as a fallow treatment early in the spring provided the application is made prior to weed emergence, and adequate moisture is available to activate the Crossing CAL Herbicide. Follow the same use rate recommendations and application guidelines listed under the Fall Application section above.

Weeds Controlled
When applied according to directions, Crossing CAL Herbicide will provide control of:

Filaree, redstem	Pigweed, redroot
Kochia (ALS and Triazine Resistant)	Pigweed, smooth
Lambsquarters, common	Thistle, Russian
Morningglory, ivyleaf	Waterhemp, common
Morningglory, tall	Waterhemp, tall
Nightshade, Eastern Black	

For information on other weeds not listed above, refer to Weeds Controlled section (Table 5) of this label.

Precautions
These Crop Specific Use directions are based upon the interactive effects of Crossing CAL Herbicide (sulfentrazone) and the primary soil and environmental factors, which affect its activity on various weed species and tolerance among crops. The user is required to observe the instructions and guidance previously presented under General Application Instructions, General Crossing CAL Herbicide Product Use Rates, Rotational Crop Guidelines, Replanting Instructions, Weed Controlled and any other section of this label pertinent to the anticipated crop use. It is important to note that not all varieties or cultivars of a given crop species have been evaluated under treatment with Crossing CAL Herbicide. Consult university or extension weed management specialists for additional information on specific local varieties or cultivars and any other pertinent information on Crossing CAL Herbicide under specific local conditions.

Use Restrictions
Do not apply more than 8.0 fluid ounces (0.25 lb active) per twelve-month period. The twelve-month period is considered to begin upon the initial Crossing CAL Herbicide application.

Do not use on soils classified as sand, which have less than 1% organic matter.

Do not apply to frozen soils or existing snow cover to prevent Crossing CAL Herbicide runoff from rain or snowmelt that may occur following application.

PEANUTS (22.0)

Apply Crossing CAL Herbicide alone or in combination with other registered herbicides for the control of key grass and broadleaf weeds in peanut production. Refer to the information below for specific use directions.

Application Instructions
Crossing CAL Herbicide may be preplant incorporated (to a depth no greater than 2 inches) up to 14 days prior to planting. Alternatively, Crossing CAL Herbicide may be applied to the soil surface at planting, or within 12 hours after planting. Incorporation of Crossing CAL Herbicide deeper than 2 inches can result in adverse crop response and/or inconsistent weed control. Do not use Crossing CAL Herbicide for "at-crack" type applications or apply to exposed peanut tissue. Such use can result in significant adverse crop response. For optimum performance, a combination of Crossing CAL Herbicide plus a grass herbicide labeled for peanuts is recommended. Under conditions of exceptionally high weed populations or when weeds not controlled by Crossing CAL Herbicide are anticipated, the use of suitable post-emergent peanut herbicides is recommended. Broadcast apply the correct Crossing CAL Herbicide use rate from Table 8 below, in a minimum of 10 gallons of water per acre of finished spray. Banded Crossing CAL Herbicide application rates must be adjusted in proportion to the broadcast rate.

Crossing CAL Herbicide Use Rates and Weeds Controlled in Coarse Soils[1]

Table 8
When applied, as directed, at 4.8 fluid ounces (0.15 pound active ingredient) per acre, Crossing CAL Herbicide will provide:
Control of the listed weeds.

Amaranth, spleen	Jimsonweed
Copperleaf, hophornbeam	Lambsquarters, common
Croton, tropic	Morningglory, entireleaf

Crownbeard, golden	Morningglory, [illegible]
Devilsclaw	

When applied, as directed, at 6.4 fluid ounces (0.2 pound active ingredient) per acre, Crossing CAL Herbicide will provide: Control of the listed weeds.

All the weeds controlled at 4.8 fl. ozs. plus:	
Amaranthus, Palmer	Morningglory, smallflower
Crabgrass, large	Poinsettia, wild [2]
Crabgrass, Southern	Redweed
Eclipta	Senna, coffee
Goosegrass	Signalgrass, broadleaf
Morningglory, pitted	Smartweed, PA (seedling)

When applied, as directed, at 8.0 fluid ounces (0.25 pound active ingredient) per acre, Crossing CAL Herbicide will provide: Control of the listed weeds.

All the weeds controlled at 6.4 fl. ozs. plus:	
Anoda, spurred	Purslane, common
Cocklebur, common	Sida, prickly
Nutsedge, yellow	Starbur, prickly
Nutsedge, purple [3]	

[1]Use rates are Crossing CAL Herbicide fluid ounces per acre. Specified weeds are controlled in coarse (sand and loamy sand) soils. Medium and fine soils (sandy loam, clay loam, clay) or soils with organic matter greater than 1.0% should use the next higher rate in Table 8 above. The next higher rate for 8.0 fluid ounces (0.25 lb ai) should not exceed 9.6 fluid ounces (0.3 lb ai) per acre.

[2] Controls initial and several continuing flushes (germinations) of wild poinsettia.

[3] Purple nutsedge activity is based on preplant incorporated applications of Crossing CAL Herbicide. Pre-emergence surface applications may provide control (>85%) under certain circumstances. Otherwise, purple nutsedge will be partially controlled (71 to 84%).

In soils with pH greater than 7, use the next lower Crossing CAL Herbicide application rate. Irrigation with alkaline (pH 8 to 9) water can result in adverse crop response. The extent of crop response is dependent on Crossing CAL Herbicide application rate, soil type (including %OM and pH), timing (after Crossing CAL application relative to crop emergence), amount and pH of irrigation water. Do not irrigate with water greater than pH 9.

After peanuts are established (4" to 6" across in size), the alkalinity of irrigation water has minimal impact on crop growth.

For information on other weeds not listed above, refer to Weed Controlled section (Table 5) in this label.

Precautions

These Crop Specific Use directions are based upon the interactive effects of Crossing CAL Herbicide (sulfentrazone) and the primary soil and environmental factors, which affect its activity on various weed species and tolerance among crops. The user is required to observe the instructions and guidance previously presented under General Application Instructions, General Crossing CAL Herbicide Product Use Rates, Rotational Crop Guidelines, Replanting Instructions, Weed Controlled and any other section of this label pertinent to the anticipated crop use. It is important to note that not all varieties or cultivars of a given crop species have been evaluated under treatment with Crossing CAL Herbicide. Consult university or extension weed management specialists for additional information on specific local varieties or cultivars and any other pertinent information on Crossing CAL Herbicide under specific local conditions.

Restrictions

Do not apply more than 9.6 fluid ounces (0.3 lb ai) of Crossing CAL Herbicide per acre per twelve-month period. The twelve-month period is considered to begin upon the initial Crossing CAL application.

Do not feed treated peanut forage or peanut hay to livestock.

Do not use on soils classified as sand, which have less than 1% organic matter.

Do not irrigate with water having a pH higher than 9.

Do not apply at cracking time.

POTATOES (23.0)

Table 9

Crossing CAL Herbicide Use Rate Table (Potatoes)
Preemergence Application

Broadcast Rate	Fluid Ounces Crossing CAL per acre		
	Soil Texture		
% Organic Matter	Coarse	Medium	Fine
<1.5	3.0 – 4.5	3.0 – 4.5	3.75 – 5.25
1.5-3.0	3.0 – 4.5	3.75 – 6.0	4.5 – 6.0
>3	4.5 – 6.0	5.25 – 6.75	6.0 – 8.0

*Refer to the previous information on soil types under the COARSE, MEDIUM, and FINE categories
Use higher rates for soils of pH less than 7.0 and lower rates for pH greater than 7.0 within the rate range.

Ground and Aerial Applications (23.1)

Apply Crossing CAL Herbicide by aerial application as a preemergence treatment following planting and after dragoff, but prior to potato emergence. Optimum performance can be achieved if Crossing CAL Herbicide is applied to the soil surface and either rainfall or overhead irrigation is used to activate the product. If no moisture is received within 7 days following application in areas without irrigation, a shallow incorporation (less than 2 inches) may be needed prior to weed and potato emergence to activate the product. Select the appropriate use rate based on soil texture and organic matter as shown in Table 9 above. For control of emerged weeds at the time of the Crossing CAL application, an appropriate burndown herbicide and adjuvants labeled for potatoes may be tankmixed with Crossing CAL to control these weeds. Do not apply Crossing CAL Herbicide if the potatoes have emerged from the soil as undesirable crop response may occur. Crossing CAL Herbicide may be tankmixed with other soil-applied herbicides labeled for use in potatoes to improve weed management and increase weed control spectrum.

Apply Crossing CAL Herbicide in a minimum of 10 gallons of spray by ground application and 5 gallons of spray by air.

Chemigation Applications (23.2)

Crossing CAL Herbicide may be applied to potatoes through sprinkler irrigation systems including center pivot, lateral move, end tow, solid set or hand move irrigation systems. Apply Crossing CAL Herbicide prior to potato emergence using sufficient water (0.25 to 0.5 inch per acre) to provide thorough soil surface coverage, but to avoid runoff of irrigation water. Crossing CAL Herbicide may be applied with other products labeled for chemigation use in potatoes.

It is important to note that irrigation with highly alk[illegible] water (high pH) following a Crossing CAL Herbicide[illegible] application may significantly increase the amount of sulfentrazone available in soil solution. [illegible]tion with water having a pH greater than 7.5 could [illegible] in adverse crop response. This response will ultimately depend on initial Crossing CAL Herbicide application rate, application timing, amount and pH of irrigation water; the sensitivity of the crop and the crop growth stage when irrigated. The risk of adverse crop response will lessen with advances in the crop growth stage.

Weeds Controlled
When applied according to directions, Crossing CAL Herbicide will provide control of:

Amaranth, Palmer	Nightshade, Eastern black
Filaree, redstem	Pigweed, redroot
Kochia (ALS and Triazine Resistant)	Pigweed, smooth
Lambsquarters, common	Thistle, Russian
Morningglory, ivyleaf	Waterhemp, common
Morningglory, tall	Waterhemp, tall

For information on other weeds not listed above, refer to Weed Controlled section (Table 5) in this label.

Precautions
Potato varieties may vary in their response to herbicide applications. When using Crossing CAL Herbicide on an untested variety, always determine the crop tolerance before planting. Some potato varieties, including Sangre, Shepody and Snowden, have shown sensitivity to Crossing CAL Herbicide. Caution should be used when planting these varieties on marginal coarse soils.

These Crop Specific Use directions are based upon the interactive effects of Crossing CAL Herbicide (sulfentrazone) and the primary soil and environmental factors, which affect its activity on various weed species and tolerance among crops. The user is required to observe the instructions and guidance previously presented under General Application Instructions, General Crossing CAL Herbicide Product Use Rates, Rotational Crop Guidelines, Replanting Instructions, Weed Controlled and any other section of this label pertinent to the anticipated crop use. It is important to note that not all varieties or cultivars of a given crop species have been evaluated under treatment with Crossing CAL Herbicide. Consult university or extension weed management specialists for additional information on specific local varieties or cultivars and any other pertinent information on Crossing CAL Herbicide under specific local conditions.

Restrictions
Do not use on soils classified as sand, which have less than 1% organic matter.

Do not apply Crossing CAL Herbicide after potato emergence from the soil as undesirable crop response may occur.

Do not apply more than 8.0 fluid ounces (0.25 pound active) per acre per twelve-month period. The twelve-month period is considered to begin upon the initial Crossing CAL application.

SOYBEANS (24.0)

Table 10

Crossing CAL Herbicide Use Rate Table (Soybeans)
Fall, Spring Early Preplant, Preemergence, and Preplant Incorporated Applications

Broadcast Rate	Fluid Ounces Crossing CAL Herbicide per acre		
	Soil Texture		
% Organic Matter	Coarse	Medium	Fine
<1.5	4.5 – 6.0	6.0 – 8.0	8.0
1.5-3	6.0 – 8.0	8.0 – 10.1	10.1
>3	8.0 – 10.1	10.1 – 12.0	12.0

Refer to the previous information on soil types under the COARSE, MEDIUM, and FINE categories
Use higher rates for soils of pH less than 7.0 and lower rates for pH greater than 7.0 within the rate range.

Ground and Aerial Applications (24.1)
Apply Crossing CAL Herbicide in conventional tillage, conservation tillage, reduced tillage or no-tillage cropping systems using rates recommended in the Crossing CAL Herbicide Use Rate Table 10. Crossing CAL Herbicide may be applied with ground or aerial sprayers calibrated to deliver a minimum of 10 gallons of finished spray by ground application and 5 gallons of finished spray by air. Use nozzle types and arrangements that will provide optimum coverage while producing a minimal amount of fine droplets. Apply sufficient spray volume to achieve adequate coverage.

Preplant Incorporated and Preemergence Applications (24.2)
Crossing CAL Herbicide can be applied prior to planting or up to 3 days after planting. When applications after planting are delayed greater than 3 days after planting, injury may occur if seeds are germinating. Crossing CAL Herbicide may be applied preemergence or preplant incorporated. For preplant incorporated applications, incorporation must be uniform and no deeper than 2 inches. Improper soil incorporation may result in erratic weed control and/or crop injury. Crossing CAL Herbicide applied near or after crop emergence may cause severe injury to the crop. Crossing CAL Herbicide can be applied alone or in combination with other labeled soybean herbicides. Crossing CAL Herbicide may be followed by labeled postemergence soybean herbicides for increased control of grass and broadleaf weeds. Always follow the most restrictive label when tank mixing. When using Crossing CAL Herbicide in no-till or minimum till cropping systems, tank mix with an appropriate burndown herbicide for improved control of existing weeds.

Fall Applications (24.3)
Crossing CAL Herbicide may be applied as a fall treatment to the stubble of harvested crops for the burndown of existing vegetation and preemergence control of labeled weeds the following spring in no-till and conservation tillage production systems. Fall applications of Crossing CAL Herbicide must be made in weed control programs that include, as needed, spring applications of preplant, preemergence or postemergence herbicides for the following crop season. Crossing CAL Herbicide can be applied to the stubble of a harvested crop in no-till or to the soil surface of conservation tillage fields after harvest when the sustained soil temperature is 55 degrees F and falling at a soil depth of 4 inches. Apply after September 30 in those areas North of Interstate 90 and after October 15 in those areas North of Interstate 70. Do not apply Crossing CAL Herbicide as a fall treatment South of Interstate 70. Applications to ridge till production systems must be made after the formation of ridges or bedded.

If weeds are emerged at the time of application, utilize a tank mixture with a suitable burndown herbicide at labeled rates. Fall applied burndown treatments should be made with a minimum of 20 gallons per acre to achieve adequate coverage of the weeds being treated. When making burndown applications to emerged weeds, the addition of adjuvants such as COC or MSO to the spray mixture can be used to enhance the burndown activity of the application.

Weeds Controlled
When Applied according to directions, Crossing CAL Herbicide will provide control of:

Amaranth, Palmer	Nightshade
Copperleaf, hophornbeam	Pigweed, spp.
Kochia (ALS and Triazine Resistant)	Sida, prickly
Lambsquarters, common	Thistle, Russian
Morningglory, spp.	Waterhemp, spp.

For information on other weeds not listed above, refer to Weed Controlled section (Table 5) in this label.

Precautions
When applying Crossing CAL Herbicide with other registered herbicides, refer to specific label information on precautions, instructions, limitations, application methods and timings, and weeds controlled.

Crossing CAL Herbicide is especially effective against a wide range of economic broadleaf and grass weeds. The same processes that sulfentrazone affects in these weeds can, under certain conditions, be affected in soybeans. These conditions include high pH (7.5 and above), cool weather, prolonged and excessive moisture, seedling diseases, and any other condition, including poor agronomic practices, that are unfavorable to vigorous crop growth. Such effects in soybeans are often observed as stunting and discoloration. The duration of these effects are somewhat dependent on the duration of the adverse growing conditions. These effects lessen and generally diminish with the return to normal growing conditions.

These Crop Specific Use directions are based upon the interactive effects of Crossing CAL Herbicide (sulfentrazone) and the primary soil and environmental factors, which affect its activity on various weed species and tolerance among crops. The user is required to observe the instructions and guidance previously presented under General Application Instructions, General Crossing CAL Herbicide Product Use Rates, Rotational Crop Guidelines, Replanting Instructions, Weed Controlled and any other section of this label pertinent to the anticipated crop use. It is important to note that not all varieties or cultivars of a given crop species have been evaluated under treatment with Crossing CAL Herbicide. Consult university or extension weed management specialists for additional information on specific local varieties or cultivars and any other pertinent information on Crossing CAL Herbicide under specific local conditions.

Restrictions
Do not apply more than 12.0 fluid ounces (0.375 lbs active) per acre of Crossing CAL Herbicide per twelve-month period. The twelve-month period is considered to begin upon the initial Crossing CAL Herbicide application.

Do not use on soils classified as sand, which have less than 1% organic matter.

Do not apply to frozen soils or existing snow cover to prevent Crossing CAL Herbicide runoff from rain or snowmelt that may occur following application.

Do not apply after crop seed germination.

SUGARCANE (25.0)

Table 11

Crossing CAL Herbicide Use Rate Table (Sugarcane)
Planting Time and Lay-by Applications

Broadcast Rate	Fluid Ounces Crossing CAL Herbicide per acre		
	Soil Texture		
% Organic Matter	Coarse	Medium	Fine
<1.5	4.5 – 6.0	6.0 – 8.0	8.0
1.5-3	6.0 – 8.3	8.0 – 10.1	10.1
>3	8.0 – 10.1	10.1 – 12.0	12.0

Refer to the previous information on soil types under the COARSE, MEDIUM, and FINE categories
Use higher rates for soils of pH less than 7.0 and lower rates for pH greater than 7.0 within the rate range.

Apply Crossing CAL Herbicide as a broadcast or banded preemerge soil applied treatment for the control of broadleaf weeds, grasses and sedges in sugarcane. Refer to the Crossing CAL Herbicide Product Use Rate Section and Table 11 for specific use information.

Planting Time Applications (25.1)
Apply Crossing CAL Herbicide preemerge to newly planted or ratoon sugarcane. Use the higher rate on clay soils and/or soils with organic matter content higher than 2 percent. Apply either by air in a minimum of 5 gallons of spray per acre or by ground equipment in a minimum of 15 gallons of spray per acre. Crossing CAL Herbicide may be applied with other herbicides registered for use in sugarcane.

Aerial Applications (25.2)
Crossing CAL Herbicide may be applied by air in a minimum of 5 gallons of finished spray per acre. Crossing CAL Herbicide may be applied with other herbicides or insecticides registered for aerial application in sugarcane.

Lay-by Applications (25.3)
Apply Crossing CAL Herbicide as a directed spray to sugarcane at lay-by timing. Use the higher rate on clay soils and/or soils with organic matter content higher than 2 percent. Apply as a directed spray with ground equipment in a minimum of 15 gallons of spray per acre. Crossing CAL Herbicide may be applied with other herbicides registered for use in sugarcane.

Weeds Controlled
When applied according to directions, Crossing CAL Herbicide will provide control of:

Morningglory, entireleaf	Morningglory, tall
Morningglory, ivyleaf	Pigweed, red root
Morningglory, red	Nutsedge, yellow

For information on other weeds not listed above, refer to Weed Controlled section (Table 5) in this label.

Precautions
These Crop Specific Use directions are based upon the interactive effects of Crossing CAL Herbicide (sulfentrazone) and the primary soil and environmental factors, which affect its activity on various weed species and tolerance among crops. The user is required to observe the instructions and guidance previously presented under General Application Instructions, General Crossing CAL Herbicide Product Use Rates, Rotational Crop Guidelines, Replanting Instructions, Weed Controlled and any other section of this label pertinent to the anticipated crop use. It is important to note that not all varieties or cultivars of a given crop species have been evaluated under treatment with Crossing CAL Herbicide. Consult university or extension weed management specialists for additional information on specific local varieties or cultivars and any other pertinent information on Crossing CAL Herbicide under specific local conditions.

Restrictions
Do not apply within 120 days of harvest.

Do not use on soils classified as sand, which have less than 1% organic matter.

Do not allow spray to contact crop leaves.

Do not apply more than 12.0 fluid ounces (0.375 lbs active) per acre of Crossing CAL Herbicide per acre per twelve-month period. The twelve-month period is considered to begin upon the initial Crossing CAL Herbicide application.

SUNFLOWERS (26.0)

Table 12

Crossing CAL Herbicide Use Rate Table (Sunflowers) Fall, Early Spring Preplant, Preemergence, and Preplant Incorporated Applications			
Broadcast Rate	**Fluid Ounces Crossing CAL Herbicide per acre**		
	Soil Texture		
% Organic Matter	**Coarse**	**Medium**	**Fine**
<1.5	3.0 - 3.75	3.0 – 4.5	3.75 – 5.25
1.5-3.0	3.0 – 4.5	3.75 – 6.0	4.5 – 6.75
>3	3.75 – 6.0	4.5 – 6.75	6.0 – 8.0
Refer to the previous information on soil types under the COARSE, MEDIUM, and FINE categories Use higher rates for soils of pH less than 7.0 and lower rates for pH greater than 7.0 within the rate range.			

Fall Applications (26.1)
Crossing CAL Herbicide may be applied in the fall as a preplant treatment to control or suppress weeds prior to planting sunflowers the following spring. Crossing CAL Herbicide should be applied to the stubble or soil surface and allow moisture from rainfall or snow to move the product into the soil. Do not mechanically incorporate in the fall or spring as this can destroy the herbicide barrier and allowing weed escapes to occur. Do not apply to frozen soils or to existing snow cover to prevent Crossing CAL Herbicide runoff from rain or snow melt that may occur following application. Crossing CAL Herbicide may be tank mixed with other residual soil herbicides that are labeled for fall use on sunflowers. If weeds are emerged at the time of Crossing CAL Herbicide application, use a burndown herbicide such as glyphosate or paraquat at the full-labeled rate in combination with Crossing CAL Herbicide or split application as needed. Select the appropriate rate from Table 12 above within the correct soil type and organic matter range. When applying Crossing CAL Herbicide in the fall, use a mid to high rate within the rate range for the appropriate soil type and organic matter.

Early Preplant and Preemergence (Spring Applications) (26.2)
Crossing CAL Herbicide may be applied preplant on the soil surface in the spring to control weeds in sunflowers. Crossing CAL Herbicide can be applied early preplant prior to planting up to 3 days after planting as a preemerge soil application if seedlings have not broken the soil surface and if the seed furrow is completely closed. For preemerge applications greater than 3 weeks prior to planting, use the high rate within the appropriate rate range for the soil and organic matter type listed in the use rate chart above (Table 12). Crossing CAL Herbicide can be tank mixed with other preemerge herbicides labeled for sunflower use. If dry conditions persist following preemerge application of Crossing CAL Herbicide, a shallow incorporation may be needed to incorporate and activate the herbicide. If weeds are emerged at the time of Crossing CAL Herbicide application, use a burndown herbicide at the full-labeled rate in combination with Crossing CAL Herbicide or split application as needed.

Preplant Incorporated (PPI) (26.3)
Crossing CAL Herbicide may be applied as a Preplant Incorporated treatment in the spring prior to planting in reduced and conventional tillage sunflowers. Crossing CAL Herbicide should be shallowly incorporated in the soil no deeper than 2 inches. Incorporating Crossing CAL Herbicide deeper than 2 inches can result in inconsistent weed control. Use the appropriate rate from Table 9 above for the soil texture, organic matter, and pH level. Crossing CAL Herbicide can be tankmixed with other soil-applied herbicides labeled for preplant incorporation in sunflowers.

Weeds Controlled
When applied according to directions, Crossing CAL Herbicide will provide control of:

Amaranth, Palmer	Pigweed, red root
Filaree, redstem	Pigweed, smooth
Kochia (ALS and Triazine Resistant)	Sida, prickly
Lambsquarters, common	Thistle, Russian
Morningglory, ivyleaf	Waterhemp, common
Morningglory, tall	Waterhemp, tall
Nightshade, Eastern black	

For information on other weeds not listed above, refer to Weed Controlled section (Table 5) in this label.

Precautions
When applying Crossing CAL Herbicide to coarse textured soils, it is recommended that growers allow a minimum of 7-14 days from application to planting. Best results are achieved with Crossing CAL Herbicide when applications are made early preplant and greater than 14 days before planting.

Some adverse crop response may occur on coarse textured soils with low organic matter (less than 1.5%) and pH of 7.8 or higher, or on highly eroded soils, or in areas of calcareous outcroppings. Crossing CAL Herbicide use rates should be reduced in those areas. Inadequate seed furrow closure or shallow planting (less than 1.0 inch) may result in undesirable crop response. As expected, poor growing conditions such as excessive moisture, low temperatures, soil compaction and diseases may also cause undesirable crop response.

These Crop Specific Use directions are based upon the interactive effects of Crossing CAL Herbicide (sulfentrazone) and the primary soil and environmental factors, which affect its activity on various weed species and tolerance among crops. The user is required to observe the instructions and guidance previously presented under General Application Instructions, General Crossing CAL Herbicide Product Use Rates, Rotational Crop Guidelines, Replanting Instructions, Weed Controlled and any other section of this label pertinent to the anticipated crop use. It is important to note that not all varieties or cultivars of a given crop species have been evaluated under treatment with Crossing CAL Herbicide. Consult university or extension weed management specialists for additional information on specific local varieties or cultivars and any other pertinent information on Crossing CAL Herbicide under specific local conditions.

Restrictions
Do not apply more than 8.0 fluid ounces (0.25 pound active) of Crossing CAL Herbicide per twelve-month period to sunflowers. The twelve-month period is considered to begin upon the initial Crossing CAL Herbicide application.

Do not apply to frozen soils or existing snow cover to prevent Crossing CAL Herbicide runoff from rain or snowmelt that may occur following application.

Do not use on soils classified as sand, which have less than 1% organic matter.
Do not incorporate greater than 2 inches deep.

TOBACCO (Burley, Flue-Cured and [illegible]k) (27.0)

Table 13

Crossing CAL Herbicide Use Rate Table (Tobacco) Preemergence and Preplant Incorporated Applications			
Broadcast Rate	**Fluid Ounces Crossing CAL per acre**		
	Soil Texture		
% Organic Matter	**Coarse**	**Medium**	**Fine**
<1.5	4.5 – 6.0	6.0 – 8.0	8.0
1.5-3	6.0 – 8.0	8.0 – 10.1	10.1
>3	8.0 – 10.1	10.1 – 12.0	12.0
Refer to the previous information on soil types under the COARSE, MEDIUM, and FINE categories Use higher rates for soils of pH less than 7.0 and lower rates for pH greater than 7.0 within the rate range.			

Crossing CAL Herbicide may be surface applied or preplant incorporated (to a depth no greater than 2 inches) from 14 days to 12 hours days prior to transplanting tobacco. Incorporating Crossing CAL Herbicide deeper than 2 inches can result in inconsistent weed control.

Broadcast apply the appropriate Crossing CAL Herbicide rate from Table 14 above, in a minimum of 10 gallons per acre of water, to the soil prior to transplanting.

Non-Bedded (Fields where raised beds are NOT formed prior to transplanting) (27.1)
Perform all accepted cultural practices for land preparation, fertilizer/fungicide incorporation, etc. prior to the application of Crossing CAL Herbicide. Once the field has been prepared for planting, Crossing CAL Herbicide may be surface applied or lightly preplant incorporated from 14 days to 12 hours prior to transplanting.

If Crossing CAL Herbicide is surface applied and it is necessary to remove equipment tracks from the field after application but prior to transplanting, any light finishing equipment may be used providing the soil is not disturbed to a depth greater than 2 inches.

If timely cultivations are not performed following a pre-transplant surface application, reduced/unacceptable weed control may occur in the drill.

Bedded (Fields where raised beds ARE formed PRIOR to transplanting) (27.2)
Apply Crossing CAL Herbicide to formed beds as a surface application from 14 days to 12 hours prior to transplanting. If it is customary to drag/knock down beds prior to transplanting, this procedure must be performed prior to the Crossing CAL Herbicide application.

When incorporating prior to bedding, Crossing CAL Herbicide must be thoroughly and uniformly incorporated to a depth no greater than 2 inches to avoid concentrating Crossing CAL Herbicide in the bed.

If initial transplanting fails to produce a uniform stand, tobacco may be replanted. DO NOT re-treat field with a second application of Crossing CAL Herbicide, or any other herbicide containing sulfentrazone. DO NOT re-bed. Re-transplant into previously formed, treated beds.

For broad spectrum and optimum grass weed control a grass herbicide application will be required.

Weeds Controlled
When Applied according to directions, Crossing CAL Herbicide will provide control of:

Amaranthus, livid	Pigweed, redroot
Filaree, redstem	Pigweed, smooth
Galinsoga, hairy	Sida, prickly
Lambsquarters, common	Signalgrass, broadleaf
Morningglory, ivyleaf	Smartweed, Pennsylvania
Morningglory, tall	

For information on other weeds not listed above, refer to Weed Controlled section (Table 5) in this label.

Precautions
Poor agronomic practices, unfavorable pH soils, diseases, cold weather, excessive moisture, drought or other conditions unfavorable to normal plant growth may adversely effect the growth of tobacco transplants. Weakened transplants may be more susceptible to herbicide response and diseases, particularly under poor drainage or compacted soil conditions or when the soil has been saturated for long periods of time. Contact your State Agricultural Extension Service Specialist for consultation as to the agronomic recommendations suited for your tobacco varieties and local conditions. Temporary stunting of tobacco may occur if transplants are set too shallowly, or if heavy rainfall occurs immediately following transplanting. Splashing of treated soil onto tobacco leaves may cause some localized and inconsequential necrosis. Use sound transplanting practices that insure treated soil will not wash or crust over tobacco plants.

These Crop Specific Use directions are based upon the interactive effects of Crossing CAL (sulfentrazone) and the primary soil and environmental factors, which affect its activity on various weed species and tolerance among crops. The user is required to observe the instructions and guidance previously presented under General Application Instructions, General Crossing CAL Product Use Rates, Rotational Crop Guidelines, Replanting Instructions, Weed Controlled and any other section of this label pertinent to the anticipated crop use. It is important to note that not all varieties or cultivars of a given crop species have been evaluated under treatment with Crossing CAL Herbicide. Consult university or extension weed management specialists for additional information on specific local varieties or cultivars and any other pertinent information on Crossing CAL Herbicide under specific local conditions.

Restrictions
Do not use on Shade Grown Tobacco

Do not apply Crossing CAL Herbicide to soils classified as sands containing less than 1% organic matter.

Do not use Crossing CAL Herbicide in tobacco seeding beds or greenhouses.

Do not apply Crossing CAL Herbicide post-transplant as unacceptable injury may occur.

Do not perform tillage practices that concentrate Crossing CAL Herbicide into the bed or crop injury may occur.

Do not apply more than 12.0 fluid ounces (0.375 lbs active) per acre of Crossing CAL Herbicide per acre per twelve-month period. The twelve-month period is considered to begin upon the initial Crossing CAL application.

Do not incorporate greater than 2 inches deep.

VEGETABLE CROPS

Before applying Crossing CAL Herbicide to vegetable crops, users, producers, and/or applicators must read and follow the information presented in the Conditions of Sale and Limitation of Warranty and Liability section on page 3 of this label.

ASPARAGUS (28.0)

Table 14

Crossing CAL Herbicide Use Rate Table (Asparagus) Spring Preemergence Applications	
Broadcast Rate	**Fluid Ounces Crossing CAL Herbicide per acre**
	Soil Texture

% Organic Matter	Coarse	Medium	Fine
<1.5	4.5 – 6.0	6.0 – 8.0	8.0
1.5-3	6.0 – 8.0	8.0 – 10.1	10.1
>3.0	8.0 – 10.1	10.1 – 12.0	12.0
Refer to the use rate information on soil types under the COARSE, MEDIUM, and FINE categories. Use higher rates for soils of pH less than 7.0 and lower rates for pH greater than 7.0 within the rate range.			

Apply Crossing CAL Herbicide as a broadcast treatment to crowns established for one or more years.

Apply in the spring before the crop and weeds emerge. Crossing CAL Herbicide should be applied at 4.5 to 12 fluid ounces (0.141 to 0.375 pound active) per acre in 10 to 40 gallons of finished spray per acre. Crossing CAL Herbicide may be applied with other pesticides registered for use with asparagus.

Weeds Controlled
When Applied according to directions, Crossing CAL Herbicide will provide control of :

Amaranth, Palmer	Nightshade, Eastern black
Galinsoga, hairy	Nutsedge, yellow
Lambsquarters, common	Pigweed, redroot
Morningglory, ivyleaf	Pigweed, smooth

For information on other weeds not listed above, refer to Weed Controlled section (Table 5) in this label.

Precautions
These Crop Specific Use directions are based upon the interactive effects of Crossing CAL Herbicide (sulfentrazone) and the primary soil and environmental factors, which affect its activity on various weed species and tolerance among crops. The user is required to observe the instructions and guidance previously presented under General Application Instructions, General Crossing CAL Herbicide Product Use Rates, Rotational Crop Guidelines, Replanting Instructions, Weed Controlled and any other section of this label pertinent to the anticipated crop use. It is important to note that not all varieties or cultivars of a given crop species have been evaluated under treatment with Crossing CAL Herbicide. Consult university or extension weed management specialists for additional information on specific local varieties or cultivars and any other pertinent information on Crossing CAL Herbicide under specific local conditions.

Restrictions
Do not apply within 14 days prior to harvest.

Do not apply more than 12.0 fluid ounces (0.375 pound active) per acre per 12-month period.

Do not make more than one Crossing CAL Herbicide application per acre per 12-month period. The twelve-month period is considered to begin upon the initial Crossing CAL Herbicide application.

Do not use on soils classified as sand, which have less than 1% organic matter.

CABBAGE (Transplanted Only) (29.0)

Table 15

Crossing CAL Herbicide Use Rate Table (Cabbage) Fall or Spring Early Preplant, Preemergence, and Preplant Incorporated Applications			
Broadcast Rate	**Fluid Ounces Crossing CAL Herbicide per acre**		
	Soil Texture		
% Organic Matter	**Coarse**	**Medium**	**Fine**
<1.5%	2.25 – 3.0	3.0 – 4.5	3.0 – 6.0
1.5-3.0 %	3.0 – 6.0	6.0 – 9.0	6.0 – 9.0
>3.0 %	6.0 – 9.0	6.0 – 12.0	6.0 – 12.0
Refer to the previous information on soil types under the COARSE, MEDIUM, and FINE categories. Use higher rates for soils of pH less than 7.0 and lower rates for pH greater than 7.0 within the rate range.			

Early Preplant (Fall Application or Spring Application) (29.1)
Crossing CAL Herbicide may be applied in the fall or spring preceding the growing season to control weeds prior to or up to the planting or transplanting of cabbage. Crossing CAL Herbicide may be applied in the spring from 60 days prior to planting up to planting time. Crossing CAL Herbicide should be applied to the harvested crop stubble or soil surface without incorporation. Moisture in the form of rain or snow will move and activate the product into the soil. Do not mechanically incorporate in the fall or spring after application as this may destroy the herbicide barrier and weed escapes can occur. Do not apply to frozen soils to prevent Crossing CAL Herbicide runoff from rain or snow that may occur following application. Crossing CAL Herbicide may be tankmixed with other burndown herbicides to control emerged weeds in the fall or spring or with residual soil herbicides that are labeled for fall use on cabbage. Use the full, recommended rates of burndown herbicides in combination with Crossing CAL Herbicide, or split applications as needed. Observe all precautions, instructions, and rotational cropping guidelines of each product's label when tank mixing, including all references to potential carryover and crop injury warnings or restrictions.

Preplant Incorporated (PPI) (29.2)
Crossing CAL Herbicide may be applied as a preplant incorporated treatment in the spring prior to transplanting of cabbage. Do not incorporate to depths greater than 2 inches. Crossing CAL Herbicide can be tankmixed with other burndown or soil-applied herbicides labeled for use in cabbage. Use the full, recommended rates of burndown herbicides or split applications as needed. Observe all precautions, instructions and rotational cropping guidelines of each product's label when tank mixing including all references to potential carryover and crop injury warnings or restrictions.

Transplant Cabbage (29.3)
Crossing CAL Herbicide may be applied pre-emergence as a broadcast or banded treatment to transplanted cabbage only. Applications should be made broadcast or banded treatment prior to transplanting. Crossing CAL Herbicide may be applied as a banded treatment into the row middles within 72 hours after transplanting.

Weeds Controlled
When Applied according to directions, Crossing CAL Herbicide will provide control of:

Galinsoga, hairy	Waterhemp, common
Lambsquarters, common	Waterhemp, tall

Pigweed, redroot	

For information on other weeds not listed above, refer to Weed Controlled section (Table 5) in this label.

Precautions
These Crop Specific Use directions are based upon the interactive effects of Crossing CAL Herbicide (sulfentrazone) and the primary soil and environmental factors, which affect its activity on various weed species and tolerance among crops. The user is required to observe the instructions and guidance previously presented under General Application Instructions, General Crossing CAL Herbicide Product Use Rates, Rotational Crop Guidelines, Replanting Instructions, Weed Controlled and any other section of this label pertinent to the anticipated crop use. It is important to note that not all varieties or cultivars of a given crop species have been evaluated under treatment with Crossing CAL Herbicide. Consult university or extension weed management specialists for additional information on specific local varieties or cultivars and any other pertinent information on Crossing CAL Herbicide under specific local conditions.

Restrictions
Do not apply more than 12 fluid ounces (0.375 pound active) per acre of Crossing CAL Herbicide per application or per twelve-month period. The twelve-month period is considered to begin upon the initial Crossing CAL Herbicide application.

Do not use on soils classified as sand, which have less than 1% organic matter.

Do not incorporate to depths greater than 2 inches.

DRY SHELLED BEANS AND PEAS (30.0)

Dried cultivars of bean (*Lupinus*); bean (*Phaseolus*)(includes field bean, kidney bean, lima bean (dry), navy bean, pinto bean, tepary bean); bean (*Vigna*) (includes adzuki bean, blackeyed pea, catjang, cowpea, crowder pea moth bean, lentil, mung bean, rice bean, southern pea, urd bean); broad bean (dry); chickpea; guar; lab lab bean; pea (*Pisum*) (includes field pea) and pigeon pea.

Table 16

Crossing CAL Use Rate Table (Dry Shelled Beans Peas)
Fall or Spring Early Preplant, Preemergence, and Preplant Incorporated Applications

Broadcast Rate	Fluid Ounces Crossing CAL per acre		
	Soil Texture		
% Organic Matter	Coarse	Medium	Fine
<1.5%	2.25 – 3.0	3.0 – 4.5	3.0 – 4.5
1.5-3.0 %	3.0 – 4.5.0	3.75 – 6.0	4.5 – 6.0
>3.0 %	3.75 – 6.0	4.5 – 6.75	5.25 – 8.0

Refer to the previous information on soil types under the COARSE, MEDIUM, and FINE categories
Use higher rates for soils of pH less than 7.0 and lower rates for pH greater than 7.0 within the rate range.

Early Preplant and Fall Applications (30.1)
Crossing CAL Herbicide may be applied in the fall as a preplant treatment to control or suppress weeds prior to planting the following spring. Crossing CAL Herbicide should be applied to the stubble or soil surface and allow moisture from rainfall or snow to move the product into the soil. Do not mechanically incorporate in the fall or spring as this can destroy the herbicide barrier and weed escapes can occur. Do not apply to frozen soils or to existing snow cover to prevent Crossing CAL Herbicide runoff from rain or snow melt that may occur following application. Crossing CAL Herbicide may be tank mixed with other residual soil herbicides that are labeled for fall use on dry bean and dry peas. If weeds are emerged at the time of Crossing CAL Herbicide application, use a burndown Herbicide such as glyphosate or paraquat at the full-labeled rate in combination with Crossing CAL Herbicide or split application as needed. Select the appropriate rate from Table 16 above within the correct soil type and organic matter range. When applying Crossing CAL Herbicide in the fall, use a mid to high rate within the rate range for the appropriate soil type and organic matter.

Early Preplant and Preemergence (Spring Applications) (30.2)
Crossing CAL Herbicide may be applied preplant on the soil surface in the spring to control weeds in dry bean and dry peas. Crossing CAL Herbicide can be applied early preplant prior to planting up to 3 days after planting as a preemerge soil application if seedlings have not broken the soil surface and if the seed furrow is completely closed. For preemerge applications greater than 3 weeks prior to planting, use the high rate within the appropriate rate range for the soil and organic matter type listed in the use rate chart above Table16. Crossing CAL Herbicide can be tank mixed with other preemerge herbicides labeled for dry bean and dry peas use. If dry conditions persist following preemerge application of Crossing CAL Herbicide, a shallow incorporation may be needed to incorporate and activate the herbicide. If weeds are emerged at the time of Crossing CAL Herbicide application, use a burndown herbicide at the full-labeled rate in combination with Crossing CAL Herbicide or split application as needed.

Preplant Incorporated (PPI) (30.3)
Crossing CAL Herbicide may be applied as a Preplant Incorporated treatment in the spring prior to planting in reduced and conventional tillage dry bean and dry pea. Do not incorporate to depths greater than 2 inches. Crossing CAL Herbicide use rates for PPI applications are similar to those used in preplant and preemergence applications. Crossing CAL Herbicide can be tankmixed with other burndown or soil-applied herbicides labeled for use in dry bean or dry pea. Use the full, recommended rates of burndown herbicides, or split applications as needed. Observe all precautions, instructions, and rotational cropping guidelines of each product's label when tank mixing, including all references to potential carryover and crop injury warnings or restrictions.

Weeds Controlled
When applied according to directions, Crossing CAL Herbicide will provide control of:

Amaranth, Palmer	Pigweed, red root
Filaree, redstem	Pigweed, smooth
Kochia (ALS and Triazine Resistant)	Sida, prickly
Lambsquarters, common	Thistle, Russian
Morningglory, ivyleaf	Waterhemp, common
Morningglory, tall	Waterhemp, tall
Nightshade, Eastern black	

For information on other weeds not listed above, refer to Weed Controlled section (Table 5) in this label.

Precautions
When applying Crossing CAL Herbicide to coarse textured soils, it is recommended that growers allow a minimum of 7-14 days from application to planting. Best results are achieved with Crossing CAL Herbicide when applications are made early preplant and greater than 14 days before planting. Under extended periods of dry weather, adequate weed control may not be achieved

Some adverse crop response may occur on coarse textured soils with low organic matter (less than 1.5%) and pH of 7.8 or higher, or on highly eroded soils, or in areas of calcareous outcroppings. Crossing CAL Herbicide use rates should be reduced in those areas. Inadequate seed furrow closure or shallow planting (less than 1.0 inch) may result in undesirable crop response. As expected, poor growing conditions such as excessive moisture, low temperatures, soil compaction and diseases may also cause undesirable crop response.

These Crop Specific Use directions are based upon the interactive effects of Crossing CAL Herbicide (sulfentrazone) and the primary soil and environmental factors, which affect its activity on various weed species and tolerance among crops. The user is required to observe the instructions and guidance previously presented under General Application Instructions, General Crossing CAL Herbicide Product Use Rates, Rotational Crop Guidelines, Replanting Instructions, Weed Controlled and any other section of this label pertinent to the anticipated crop use. It is important to note that not all varieties or cultivars of a given crop species have been evaluated under treatment with Crossing CAL Herbicide. Consult university or extension weed management specialists for additional information on specific local varieties or cultivars and any other pertinent information on Crossing CAL Herbicide under specific local conditions.

Restrictions
Do not apply more than 8.0 fluid ounces (0.25 pound active) total per twelve-month period. The twelve-month period is considered to begin upon the initial Crossing CAL application.

Do not apply after crop emerges, or if the seedling is close to the soil surface.

Do not incorporate to depths greater than 2 inches.

Do not apply to frozen soils or to existing snow cover to prevent Crossing CAL Herbicide runoff from rain or snow melt that may occur following application.

Do not use on soils classified as sand, which have less than 1% organic matter.

Do not use on soils classified as sand, which have less than 1% organic matter.

HORSERADISH (31.0)

Table 17

Crossing CAL Herbicide Use Rate Table (Horseradish) Fall or Spring Early Preplant, Preemergence, and Preplant Incorporated Applications			
Broadcast Rate	**Fluid Ounces Crossing CAL Herbicide per acre**		
	Soil Texture		
% Organic Matter	**Coarse**	**Medium**	**Fine**
<1.5%	2.25 – 4.5	3.0 – 4.5	3.0 – 4.5
1.5-3.0 %	4.5 – 6.0	6.0 – 8.0	6.0 – 8.0
>3.0 %	6.0 – 7.5	6.0 – 8.0	6.0 – 8.0
Refer to the previous information on soil types under the COARSE, MEDIUM, and FINE categories Use higher rates for soils of pH less than 7.0 and lower rates for pH greater than 7.0 within the rate range.			

Crossing CAL Herbicide may be applied as an preplant preemerge or preplant incorporated treatment by ground in a minimum of 15 gallons of finished spray.

Early Preplant (Fall Application or Spring Application) (31.1)
Crossing CAL Herbicide may be applied in the fall or spring preceding the growing season to control or suppress weeds prior to or up to the planting of horseradish. Crossing CAL Herbicide may be applied in the spring from 60 days prior to planting up to planting. Crossing CAL Herbicide should be applied to the harvested crop stubble or soil surface without incorporation. Moisture in the form of rain or snow will move and activate the product into the soil. Do not mechanically incorporate in the fall or spring after application as this may destroy the herbicide barrier and weed escapes may occur. Do not apply to frozen soils to prevent Crossing CAL Herbicide runoff from rain or snow that may occur following application. Crossing CAL Herbicide may be tankmixed with other burndown herbicides to control emerged weeds in the fall or spring or with residual soil herbicides that are labeled for use on horseradish. Use full, recommended rates of burndown herbicides in combination with Crossing CAL Herbicide, or split applications as needed. Observe all precautions, instructions, and rotational cropping guidelines of each product label when tank mixing, including all references to potential carryover and crop injury warnings or restrictions.

Preplant Incorporated (PPI) (31.2)
Crossing CAL Herbicide may be applied as a preplant incorporated treatment in the spring prior to planting of horseradish. Do not incorporate to depths greater than 2 inches. Crossing CAL Herbicide can be tankmixed with other burndown or soil-applied herbicides labeled for use on horseradish. Use the full, recommended rates of burndown herbicides or split applications as needed. Observe all precautions, instructions and rotational cropping guidelines of each product's label when tank mixing including all references to potential carryover and crop injury warnings or restrictions.

Pre-Emergence (PRE) (31.3)
Crossing CAL Herbicide may be applied pre-emergence as a broadcast or banded treatment on horseradish. Applications should be made broadcast prior to planting, broadcast soon after planting but at least 5 days before crop emergence. Crossing CAL Herbicide may be applied as a banded treatment into the row middles after crop emergence. Use the higher Crossing CAL Herbicide rates on clay soils and/or soils with greater than 1% organic matter. Crossing CAL Herbicide may be applied with other pesticides registered for use on horseradish.

Weeds Controlled
When applied according to directions, Crossing CAL Herbicide will provide control of:

Lambsquarters, common	Pigweed, redroot
Morningglory, ivyleaf	Waterhemp, common
Nutsedge, yellow	Waterhemp, tall

For information on other weeds not listed above, refer to Weed Controlled section (Table 5) in this label.

Precautions
These Crop Specific Use directions are based upon the interactive effects of Crossing CAL Herbicide (sulfentrazone) and the primary soil and environmental factors, which affect its activity on various weed species and tolerance among crops. The user is required to observe the instructions and guidance previously presented under General Application Instructions, General Crossing CAL Herbicide Product Use Rates, Rotational Crop Guidelines, Replanting Instructions, Weed Controlled and any other section of this label pertinent to the anticipated crop use. It is important to note that not all varieties or cultivars of a given crop species have been evaluated under treatment with Crossing CAL Herbicide. Consult university or extension weed management specialists for additional information on specific local varieties or cultivars and any other pertinent information on Crossing CAL Herbicide under specific local conditions.

Restrictions
Do not apply more than 8.0 fluid ounces (0.25 pound active) per acre of Crossing CAL Herbicide per application or per twelve-month period. The twelve-month period is considered to begin upon the initial Crossing CAL Herbicide application.

Do not apply directly on the crop after the crop emerges or if the seedling sprouts are close to the soil surface.

Do not use on soils classified as sand, which have less than 1% organic matter.

Do not incorporate to depths greater than 2 inches.

OIL CROPS

MINT (32.0)

Table 24

Crossing CAL Herbicide Use Rate Table (Mint) For Dormant and New Planting Applications			
Broadcast Rate	**Fluid Ounces Crossing CAL Herbicide per acre**		
	Soil Texture		
% Organic Matter	**Coarse**	**Medium**	**Fine**
<1.5%	4.5 – 6.0	6.0 – 8.0	8.0
1.5 - 3.0 %	6.0 – 8.0	8.0 – 10.1	10.1
>3.0 %	8.0 – 10.1	10.1 – 12.0	12.0
Refer to the previous information on soil types under the COARSE, MEDIUM, and FINE categories Use higher rates for soils of pH less than 7.0 and lower rates for pH greater than 7.0 within the rate range.			

Dormant Applications (32.1)
Apply Crossing CAL Herbicide to established stands of dormant mint after post harvest and/or spring land cultivation has been completed and before emergence of new mint growth.

Split applications of Crossing CAL Herbicide may be used for preemergence sequential control of winter annuals and summer annuals. Fall applications must be applied after post harvest cultivation has been completed and spring application made after spring cultivation has been completed and before emergence of new mint growth.

Apply Crossing CAL Herbicide in tank-mixtures with a registered burndown herbicide to control emerged weeds at the time of application. A surfactant is recommended with these tank mixtures to improve control of the emerged weeds.

Crossing CAL Herbicide may also be applied in tank mixtures with other products registered for use in mint.

New Planting Applications (32.2)
Crossing CAL Herbicide may be applied to new mint plantings preemergence to the weeds and mint. The rate of application should be reduced approximately twenty five percent of the rate recommended for established plantings for particular soil characteristics. Refer to Crossing CAL Herbicide Use Rate Table (Table 24) for the appropriate use rate for the soil type and organic matter content. The higher rates in the range are recommended for soils of pH less than 7.0.

Weeds Controlled
When Applied according to directions, Crossing CAL Herbicide will provide control of:

Amaranth, Powell	Nutsedge, yellow
Bedstraw, catchweed	Pigweed, redroot
Chamomile, mayweed	Sheperdspurse
Kochia (ALS and Triazine Resistant)	Toadflax, yellow
Lambsquarters, common	Thistle, Russian
Morningglory, ivyleaf	Waterhemp, common
Nightshade, Eastern black	Waterhemp, tall

For information on other weeds not listed above, refer to Weed Controlled section (Table 5) in this label.

Precautions
Applications made to mint that has emerged will result in severe injury to exposed plant tissue.

Applications are recommended only to healthy mint fields. Applications to mint under stress from disease, pests and cultural or environmental conditions may result in crop injury.

Moisture in the form of rainfall or overhead irrigation is required after application to activate the herbicide

These Crop Specific Use directions are based upon the interactive effects of Crossing CAL Herbicide (sulfentrazone) and the primary soil and environmental factors, which affect its activity on various weed species and tolerance among crops. The user is required to observe the instructions and guidance previously presented under General Application Instructions, General Crossing CAL Herbicide Product Use Rates, Rotational Crop Guidelines, Replanting Instructions, Weed Controlled and any other section of this label pertinent to the anticipated crop use. It is important to note that not all varieties or cultivars of a given crop species have been evaluated under treatment with Crossing CAL Herbicide. Consult university or extension weed management specialists for additional information on specific local varieties or cultivars and any other pertinent information on Crossing CAL Herbicide under specific local conditions.

Restrictions
Apply Crossing CAL Herbicide only to dormant mint or new mint plantings before new growth emerges.

Do not use on soils classified as sand, which have less than 1% organic matter.

Do not apply more than 12 fluid ounces (0.375 pound active) per twelve-month period. The twelve-month period is considered to begin upon the initial Crossing CAL Herbicide application.

TURF

SOD PRODUCTION (33.0)

Crossing CAL Herbicide may be applied to established seeded, sodded or sprigged turfgrasses following the second mowing for the control of key grass, sedge and broadleaf weeds. Turf grasses should have developed a good root system, a uniform stand with healthy root systems to fill in the exposed edges prior to application. Sod injury could result from application of this product on sod that is not well established or has been weakened by stresses such as unfavorable weather conditions, diseases, chemical, recent harvesting or mechanical influences.

Turf Grass Tolerance
When applied as directed, the following established turf grasses are tolerant to Crossing CAL Herbicide at the recommended use rates.

Table 25 Tolerant grasses

Grass Type	Maximum Use Rate For Single Application	
	Fluid Ounces Crossing CAL Herbicide	Pound Active Ingredient Per Acre
Cool Season Grasses **		

	Per Ac	
Bentgrass, creeping		0.125
Fescue, fine * (Festuca rubra) Fescue, tall * (Festuca arundinacea) Ryegrass, perennial (Lolium perenne Bluegrass, Kentucky (Poa pratensis) Bluegrass, Rough (Poa trivialis)	4-8	0.125- 0.25
Warm Season Grasses **		
Bahiagrass (Paspalum notatum) Buffalograss (Buchloe dactyloides) Carpetgrass (Axonopus affinis) Centipedegrass (Eremochloa ophuioides) Kikuyugrass (Pennisetum clandestinum) Seashore Paspalum (Paspalum vaginatum) Zoysiagrass (Zoysia japonica) Bermudagrass (Cynadon dactylon) Bermudagrass Hybrids (Cyn Bluegrass, St. Augustinegrass (Stenotaphrum secundatum)	8-12	0.25-0.375

* Applications of Crossing CAL Herbicide to certain varieties of Chewings Fine Fescue or Tall Fescue may result in undesirable plant response.

** It is important to note that not all varieties or cultivars have been evaluated under treatment with Crossing CAL Herbicide. Consult university or extension weed management specialists for additional information on specific local varieties or cultivars and any other pertinent information on Crossing CAL Herbicide under specific local conditions.

Applications to Reseeded, Overseeded or Sprigged Areas
Reseeding, overseeding or sprigging may be done following Crossing CAL Herbicide applications to turfgrasses. If reseeding, overseeding or sprigging is done within 1 month following a Crossing CAL Herbicide treatment, the establishment of desirable grasses may be inhibited. Overseeding of bermudagrass with perennial ryegrass may be done two (2) to four (4) weeks following a Crossing CAL Herbicide application provided slight grass plant response can be tolerated.

Optimum reseeding and overseeding results may be obtained with the use of mechanical or power seeding equipment, and where proper soil cultivation, irrigation and fertilization practices are followed.

Adjuvant use
Good spray coverage is required for optimum control of weeds. Temporary discoloration of some sod species may result from use of surfactant. Use of surfactants is not recommended.

Postemergence Control of Sedges
Crossing CAL Herbicide may be applied at the rate of four (4) to twelve (12) fluid ounces per acre to established turf grasses for the control or suppression of sedges. Select the correct Crossing CAL Herbicide use rate from Table 25.

When applied as directed, Crossing CAL Herbicide will provide control or suppression of the following sedges.
Table 26A

Common Name	Scientific Name
Kyllinga, green	*Kyllinga brevifolia*
Kullinga, false green	*Kyllinga gracillima*
Nutsedge, purple	*Cyperus rotundus*
Nutsedge, yellow	*Cyperus esculentus*
Sedge, cylindrical	*Cyperus retrorsus*
Sedge, globe	*Cyperus globulosus*
Sedge, Surinam	*Cyperus surinamensis*
Sedge, Texas	*Cyperus polystachyos*

Purple nutsedge: For optimum control of purple nutsedge, split applications are recommended below. Apply 4-8 ounces per acre as an initial application followed by a second application when evidence of actively growing purple nutsedge is visible. Do not exceed the maximum rate per acre based on the turf variety as listed in Table 25; tolerant grasses.

Split Application Rates for Optimum Purple Nutsedge Control

Grass Type	First Application (fl. ozs. per acre)	Second Application (fl. ozs. per acre
Cool Season Grasses	2-4 fl. ounces	2-6 fl. ounces
Warm Season Grasses	4-6 fl. ounces	4-6 fl. ounces

Allow 35 days after first application for second application.

Postemergence Control of Grassy Weeds

Crossing CAL Herbicide will control or suppress specific annual grasses (Table 26 B) when applied at a rate of 4 to 12 fl oz/acre . Apply the highest rate consistent with the rate needed for turfgrass tolerance in Table 25. Rates lower than 12 fl oz/acre will generally control grasses for at least 60 days. Crossing CAL Herbicide works best if applied when the annual grasses are small (pre tiller stage) and actively growing.

Table 26B

Common Name	Scientific Name
Goosegrass	*Eleusine indica*

Postemergence Control of Broadleaf Weeds
Crossing CAL Herbicide will control or suppress the weeds listed in the broadleaf chart below when applied alone shortly after weeds have emerged. Crossing CAL Herbicide may be applied at the rate of four (4) to twelve (12) fluid ounces per acre to established turf grasses for the control or suppression of broadleaf weeds. Select the correct Crossing CAL Herbicide use rate from Table 25. For optimum results, Spartan applications should be made shortly after weeds have emerged.

Crossing CAL Herbicide may be tankmixed with other herbicides, insecticides and fungicides registered for use on turfgrasses. Read and follow the label recommendations of the tank mix partner to determine turfgrass specie tolerance, use rates and application requirements. Follow all label restrictions, use directions and precautionary statements before use.

When applied as directed, Crossing CAL Herbicide will provide control or suppression of the following broadleaf weeds.

Broadleaves	*Scientific Names*
Bittercress	*Cardamine spp.*
Black Medic	*Medicago lupulina*
Buttercup	*Ranunculus spp.*
Carolina geranium	*Geranium carolinianum*
Carpetweed	*Mollugo verticillata*
Chickweed, common	*Stellaria media*
Chickweed, mousear	*Cerastium vulgatum*
Cinquefoil	*Potentilla spp.*
Clover	*Trifolium spp.*
Cudweed	*Gnaphalium spp.*

Dandelion	*Taraxacum offici*
Dock, curly	*Rumex crispus*
Evening primrose	*Oenothera biennis*
Fiddleneck	*Amsinckia spp.*
Filaree	*Erodium spp.*
Garlic, wild	*Allium vineale*
Goldenrod	*Solidago spp.*
Ground ivy	*Glechema hederasea*
Henbit	*Lamium amplexicaule*
Knotweed, prostrate	*Polygonum aviculare*
Kochia	*Kochia scoparia*
Lambsquarters, common	*Chenopodium album*
Lawn burweed	*Soliva pterosperma*
Lespedeza, common	*Lespedeza striata*
Mallow, common	*Malva neglecta*
Onion, wild	*Allium canadense*
Parsley piert	*Alchemilla arvensis*
Pigweed, redroot	*Amaranthus retroflexus*
Pigweed, tumble	*Amaranthus albus*
Pineapple weed	*Matricaria matricariodes*
Plantain, buckhorn	*Plantago lanceolata*
Puncture weed	*Tribulus terrestris*
Purslane, common	*Portulaca oleracea*
Pusley, Florida	*Richardia scabra*
Redweed	*Melochia corchorifolia*
Rocket, London	*Sisymbrium irio*
Smartweed, PA	*Polygonum pensylvanicum*
Sorrel, red	*Rumex acetosella*
Speedwell	*Veronica spp.*
Spurge, annual	*Euphorbia spp.*
Spurge, prostrate	*Euphorbia humistrata*
Spurge, spotted	*Euphorbia maculata*
Star of Bethlehem	*Ornithogalum umbellatum*
Velvetleaf	*Abutilon theophrasti*
Violet, wild	*Viola pratincola*
Woodsorrel, creeping	*Oxalis corniculata*
Woodsorrel, yellow	*Oxalis stricta*

Precautions
The use of additional surfactants may cause temporary undesirable effects to turfgrasses.

Restrictions
Sod production areas must be established three (3) months prior to the initial treatment of Crossing CAL Herbicide.

Do not apply Crossing CAL Herbicide to golf course greens or tees.

Do apply Crossing CAL Herbicide to turf grasses not listed on this label.

Do not apply with surfactants without on-site evaluations for spray mixture compatibility and physical effects to turf grasses.

Do not graze or feed forage harvested from Crossing CAL Herbicide treated areas.

Do not apply to landscape ornamental plants or ornamental beds.

Do not harvest sod within three (3) months of Crossing CAL Herbicide application.

Non-CROP USES (34.0)

For Use in Railroad, Highway, Roadside, Pipeline and Utility Rights-of-Way, Industrial Areas, Fence Rows, and Other Non-crop Sites. Can Also Be Used For Selective Weed Control in Turf Sites Including Residential and Institutional Lawns, Athletic Fields, Commercial Sod Farms, Golf Course Fairways and Roughs.

DIRECTIONS FOR USE (35.0)

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.

Do not apply this product through any type of irrigation system.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your state or tribe, consult the agency responsible for pesticide regulation.

GENERAL INFORMATION (36.0)

Crossing CAL Herbicide is a selective soil applied herbicide for the control of certain broadleaf weeds, grasses and sedges. When applied according to directions, it will provide control of susceptible species. Crossing CAL Herbicide is formulated as flowable (suspension concentrate) containing four pounds of the active ingredient sulfentrazone per gallon.

The mode of action of Crossing CAL Herbicide involves uptake by weed roots and shoots. Observe all instructions, mixing directions, application precautions and other label information of each product when tank mixing with Crossing CAL Herbicide.

Proper handling instructions: This product may not be mixed or loaded within 50 feet of any wells (including abandoned wells and drainage wells), sink holes, perennial or intermittent streams and rivers, and natural or impounded lakes and reservoirs. This setback does not apply to properly capped or plugged abandoned wells and does not apply to impervious pad or properly diked mixing/loading areas.

Operations that involve mixing, loading, rinsing or washing of this product into or from pesticide handling or application equipment or containers within 50 feet of any well, are prohibited unless conducted on an impervious pad constructed to withstand the weight of the heaviest load that may be positioned on or moved across the pad. Such a pad shall be designed and maintained to contain any product spills or equipment leaks, container or equipment rinse or wash water, and rainwater that may fall on the pad. Surface water shall not be allowed to either flow over or from the pad, which means the pad must be self contained. The pad shall be sloped to facilitate material removal. An unroofed pad shall be of sufficient capacity to contain at a minimum 110% of the capacity of the largest pesticide container or application equipment on the pad. A pad that is covered by a roof of sufficient size to completely exclude precipitation from contact with the pad shall have a minimum containment capacity of 100% of the capacity of the largest pesticide container or application equipment on the pad. Containment capacities as described above shall be maintained at all times. The above specific minimum containment capacities do not apply to vehicles when delivering pesticide shipments to the mixing/loading site. States may have in effect additional requirements regarding wellhead setbacks and operational containment.

Product must be used in a manner which will prevent back siphoning in wells, spills or improper disposal of excess pesticide, spray mixtures or rinsates.

GENERAL APPLICATION INFORMATION (37.0)

Utilize a boomless application system or a boom and nozzle sprayer equipped with the appropriate nozzles, spray tips and screens and adjusted to provide optimum spray distribution and coverage at the appropriate operating pressures. Utilize nozzles and boomless sprayer configurations which produce minimal amounts of fine spray droplets. Do not exceed 25 psi spray pressure unless otherwise required by the manufacturer of drift reducing nozzles or boomless application systems. Apply a minimum of 10 gallons of finished spray per acre.

Water must be used as the carrier for this product when applied alone, or when tank mixed with other herbicides.

Avoid letting this product sit overnight as settling of product and difficulty of resuspending may occur.

Do not allow spray to drift onto adjacent plants as injury to other plants may occur.

Do not apply to ornamental shrubs and trees, turf grasses or crops.

SPRAY TANK PREPARATION (38.0)

It is important that spray equipment is clean and free of existing pesticide deposits before using this product. Follow the spray tank clean out procedures specified on the label of product previously applied before adding Crossing CAL Herbicide to the tank.

Mixing Instructions (38.1)

Crossing CAL Herbicide may be tank mixed with other herbicides for control of additional weed species. Mixtures with some other herbicides have not been tested. Conduct an appropriate compatibility test prior to tank mixing with other products. Follow all precautions and restrictions on the tank mix partner label.

For best results, fill spray tank with one half of the volume of clean water needed for the area to be treated. Start agitation system. Slowly add Crossing CAL Herbicide to the spray tank. Complete filling the spray tank to the desired level. Continuous spray tank agitation is required at all times to maintain a uniform spray solution. Make sure Crossing CAL Herbicide is thoroughly mixed before application or before adding another product to the spray tank.

For tank mixtures with other herbicides, a jar test should be conducted to ensure product compatibility before full-scale mixing. Provided the jar test indicates the mixture to be compatible, prepare the tank mixture as follows: Fill the tank one half full with water. With agitator operating, add the recommended amounts of ingredients using the following order: dry granules first, liquid suspensions (flowables) second. Add EC products followed by water soluble products to tank as agitation continues and tank is filled with water. All applicable directions, restrictions and precautions for the tank mixture herbicides must be followed.

Use the Crossing CAL Herbicide mixture immediately after mixing. Do not store the sprayer overnight or for any extended period of time with the Sulfentrazone spray mixture remaining in the tank. Premixing Crossing CAL Herbicide spray solutions in nurse tanks is not recommended.

If Crossing CAL Herbicide is tank-mixed with other herbicides, all additional directions , restrictions and precautions for the tank mixture herbicides must be followed.

SPRAY DRIFT MANAGEMENT (39.0)

Avoiding spray drift at the application site is the responsibility of the applicator. The interaction of many equipment and weather-related factors determine the potential for spray drift. The applicator and the grower are responsible for considering all these factors when making decisions.

The following drift management requirements must be followed to avoid off-target drift movement from aerial applications. These requirements do not apply to forestry applications, public health uses or to applications using dry formulations.

1. The distance of the outer most nozzles on the boom must not exceed ¾ the length of the wingspan or rotor.

2. Nozzles must always point backward and parallel with the air stream and never be pointed downwards more than 45 degrees. Where states have more stringent regulations, they should be observed.

The applicator should be familiar with and take into account the information covered in the Aerial Drift Reduction Advisory Information.

Importance of Droplet Size (39.1)

The most effective way to reduce drift potential is to apply large droplets. The best drift management strategy is to apply the largest droplets that provide sufficient coverage and control. Applying larger droplets reduces drift potential, but will not prevent drift if applications are made improperly, or under unfavorable environmental conditions (see Wind, Temperature and Humidity, and Temperature Inversion section of this label).

Controlling Droplet Size (39.2)

Volume: Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets.

Pressure: Use the lower spray pressures recommended for the nozzle. Higher pressure reduces droplet size and does not improve canopy penetration. When higher flow rates are needed, use higher flow rate nozzles instead of increasing pressure.

Number of nozzles: Use the minimum number of nozzles that provide uniform coverage.

Nozzle Orientation: Orienting nozzles so that the spray is released backwards, parallel to the airstream will produce larger droplets than other orientations. Significant deflection from the horizontal will reduce droplet size and increase drift potential.

Nozzle Type: Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles. Solid stream nozzles oriented straight back produce larger droplets than other nozzle types.

Boom Height: Making applications at the lowest height that produces a uniform spray pattern will reduce exposure of droplets to evaporation and wind.

Boom Length: For some use patterns, reducing the effective boom length to less than ¾ of the wingspan or rotor length may further reduce drift without reducing swath width.

Application Height (by air): Applications should not be made at a height greater than 10 feet above the top of the largest plants unless a greater height is required for aircraft safety. Making applications at the lowest height that is safe reduces exposure of droplets to evaporation and wind.

Swath Adjustment

When applications are made with a crosswind toward sensitive areas, the swath will be displaced downwind. Therefore, on the up and downwind edges of the field, the applicator must compensate for this displacement by adjusting the path of the aircraft upwind. Swath adjustment distance should increase, with increasing drift potential (higher wind, smaller drops, etc.). For ground applications, when applications are made with a crosswind towards sensitive areas, the application should leave a buffer to avoid off-site movement.

Wind

Drift potential is lowest between wind speeds of 2-10 mph. However, many factors, including droplet size and equipment type determine drift potential at any given speed. Application should be avoided below 2 mph due to variable wind direction and high inversion potential

Note: Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they affect drift.

Temperature and Humidity

When making applications in low relative humidity, set up equipment to produce larger droplets to compensate for evaporation. Droplet evaporation is most severe when conditions are both hot and dry.

Temperature Inversions

Applications should not occur during a temperature inversion because drift potential is high. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions due to the light variable winds common during inversions. Temperature inversions are characterized by increasing temperatures with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog; however, if fog is not present, inversions can also be identified by the movement of smoke from a ground source or an aircraft smoke generator. Smoke

that layers and moves laterally in a concentrated c[illegible] (under low wind conditions) indicates an inversion, while smoke that moves upwards and rapidly dissipates indicates good vertical air mixing.

Sensitive Areas
The pesticide should only be applied when the potential for drift to adjacent sensitive areas (e.g., residential areas, bodies of water, known habitat for threatened or endangered species, non-target crops) is minimal (e.g, when wind is blowing away from the sensitive areas).

Drift Control Additives
Drift control additives may be used with all spray equipment with the exception of controlled droplet applicators. When a drift control additive is used, read and carefully observe cautionary statements and all other information on the label. It is recommended that additives be certified by the Chemical Producers and Distributors Association (CPDA).

Sprayer Equipment Clean-Out (40.0)
After spraying Crossing CAL Herbicide and before using sprayer equipment for any other applications, the sprayer must be thoroughly cleaned using the following procedure:

1. Drain sprayer tank, hoses, and spray boom and thoroughly rinse the inside of the sprayer tank with clean water to remove sediment and residues. In addition, thoroughly flush sprayer hoses, boom, and nozzles with clean water.
2. Fill the tank 1/2 full with clean water, and add appropriate detergent or ammonia (follow manufacturer's directions for use). Fill the tank to capacity and operate the sprayer for 15 minutes to flush hoses, boom, and nozzles.
3. Drain the sprayer system. Rinse the tank with clean water and flush through the hoses, boom, and nozzles. Remove and clean spray tips and screens separately.
4. Properly dispose of all cleaning solution and rinsate in accordance with Federal, State and local regulations and guidelines.

Do not drain or flush equipment on or near desirable trees or plants. Do not contaminate any body of water including irrigation water that may be used on other plants.

APPLICATION INSTRUCTIONS (41.0)
Railroad Rights-of-Way (41.1)
Crossing CAL Herbicide can be used to control many weeds and maintain bare ground on railroad rights-of-way, including railroad yards, railroad crossings and railroad bridge abutments.

Highway, Roadside, Pipeline and Utility Rights-of-Way. (41.2)
Crossing CAL Herbicide can be used to control many weeds and maintain bare ground in highway, roadside, pipeline and utility rights-of-way, Such areas would include, but are not limited to, guard rails, road shoulders, electric utility substations, pipeline pumping stations, around electric transmission towers, around distribution line poles and in other areas where complete vegetation control is desired.

Industrial Areas, Fence Rows and Other Non-crop Sites (41.3)
Crossing CAL Herbicide controls weeds and maintains bare ground in industrial areas including production facilities, tank farms, storage areas, parking areas, lumber yards, airports, military installations, along fence rows, and in similar non-crop sites where complete vegetation control is needed.

Method and Rate of Application (41.4)
For residual control of germinating weeds in non-crop land, apply this product as a broadcast treatment at 8 to 12 fluid ounces (0.25 to 0.375 pounds active ingredient) per acre by ground in a minimum of 10 gallons of spray solution per acre. Applications may be made by helicopter on railroad rights-of-way only.

DO NOT apply Crossing CAL Herbicide to soils classified as sand with less than 1% Organic Matter.

Use labeled rates of burndown herbicides such as glyphosate, glyphosate - trimesium, diquat, 2,4-D, dicamba,etc. as tank mixtures with Crossing CAL Herbicide. Use recommended adjuvants for the herbicide tank mix partner. For all products used in tank mixes, refer to the specific product labels for all restrictions on tank mixing and observe all label precautions, instructions and rotational cropping restrictions.

Timing
For best results, apply Crossing CAL Herbicide alone or in combination with other herbicides for residual control of weeds in late summer, fall, or early spring to insure adequate moisture for soil activation.

Weeds Controlled
This product, when applied at 8 to 12 fluid ounces per acre, will control the following weeds in non-cropland areas. Use the higher labeled rates to extend length of control. Use the higher rates on sites with fine soil textures and on sites with more than 2% organic matter.

Weeds Controlled	
Common Name	**Scientific Name**
Beggarweed, Florida	Desmodium tortuosum
Carpetweed	Mollugo verticillata
Chickweed, common	Stellaria media
Copperleaf, Hophornbeam	Acalypha ostryifolia
Crabgrass species	Digitaria spp.
Croton, tropic	Croton glandulosus
Daisy, American	Coreopsis grandiflora
Dayflower, common	Commelina communis
Dayflower, Virginia	Commelina virginica
Dock, curly	Rumex crispus
Fixweed	Descurainia Sophia
Galinsoga, hairy	Galinsoga ciliata
Groundcherry, clammy (seedling)	Physallis heterophylla
Groundcherry, cutleaf	Physalis angulata
Jimsonweed	Datura stramonium
Kochia	Kochia scoparia
ALS/Triazene Resistant Kochia	Kochia scoparia
Lambsquarter, common	Chenopodium album
Lettuce, wild	Lactuca virosa
Mallow, common	Malva neglecta
Milkweed, honeyvine	Ampelamus albidus
Mexicanweed	Caperonia castanifolia

Morningglory species	Ipomoea spp.
Mustard species	Brassica spp.
Nightshade species	Solanum spp.
Nutsedge species	Cyperus spp
Palmer amaranth	Amaranthus palmeri
Pigweed, smooth	Amaranthus hybridus
Pigweed, redroot	Amaranthus retroflexus
Texasweed	Caperonia palustrus
Thistle, Russian	Salsola iberica
Waterhemp, tall	Amaranthus tuberculatus
Waterhemp, common	Amaranthus rudis

Turf Use Instructions (42.0)

General Information (42.1)

Crossing CAL Herbicide is a selective preemergence and post emergence herbicide which controls annual grasses and broadleaf weeds in established turf areas including, but not limited to, residential and institutional lawns, athletic fields, commercial sod farms, golf course fairways and golf course roughs. To broaden the spectrum for preemergence control or suppression of annual grasses and/or broadleaf weeds, Crossing CAL Herbicide should be tank mixed with an EPA registered annual grass herbicide. Observe all instructions, mixing directions, application precautions and other label information of each product when tank mixing with Crossing CAL Herbicide.

Crossing CAL Herbicide is formulated as a flowable (suspension concentrate) containing 4 lbs of active ingredient per gallon. The mode of action of Crossing CAL Herbicide involves uptake by both weed roots and shoots. Preemergence application of Crossing CAL Herbicide requires soil moisture for activation. The amount of soil moisture required for activation following application depends on existing soil moisture, organic matter content and soil texture. The most effective preemergence weed control will be obtained when Crossing CAL Herbicide is activated by at least 0.5 inches of rainfall or irrigation within 7 days after application and prior to weed seed germination.

Mixing and Application Instructions (42.2)

General handling instructions

This product may not be mixed or loaded within 50 feet of any wells (including abandoned wells and drainage wells), sink holes, perennial or intermittent streams and rivers, and natural or impounded lakes and reservoirs. This setback does not apply to properly capped or plugged abandoned wells and does not apply to impervious pad or properly diked mixing/loading areas.

Operations that involve mixing, loading, rinsing or washing of this product into or from pesticide handling or application equipment or containers within 50 feet of any well, are prohibited unless conducted on an impervious pad constructed to withstand the weight of the heaviest load that may be positioned on or moved across the pad. Such a pad shall be designed and maintained to contain any product spills or equipment leaks, container or equipment rinse or wash water, and rainwater that may fall on the pad. Surface water shall not be allowed to either flow over or from the pad, which means the pad must be self contained. The pad shall be sloped to facilitate material removal. An unroofed pad shall be of sufficient capacity to contain at a minimum 110% of the capacity of the largest pesticide container or application equipment on the pad. A pad that is covered by a roof of sufficient size to completely exclude precipitation from contact with the pad shall have a minimum containment capacity of 100% of the capacity of the largest pesticide container or application equipment on the pad. Containment capacities as described above shall be maintained at all times. The above specific minimum containment capacities do not apply to vehicles when delivering pesticide shipments to the mixing/loading site. States may have in effect additional requirements regarding wellhead setbacks and operational containment.

Product must be used in a manner which will prevent back siphoning in wells, spills or improper disposal of excess pesticide, spray mixtures or rinsates.

SPRAY TANK PREPARATION

It is important that spray equipment is clean and free of existing pesticide deposits before using this product. Follow the spray tank clean out procedures specified on the label of product previously applied before adding Crossing CAL Herbicide to the tank.

Crossing CAL Herbicide is a suspension concentrate intended for dilution with water. In certain applications, liquid fertilizer may replace water as diluent.

MIXING WITH WATER

For best results, fill spray tank with one fourth of the volume of clean water needed for the area to be treated. Start the agitation system and add Crossing CAL Herbicide to the tank. Make sure Crossing CAL Herbicide is thoroughly mixed before application or before adding another product to the spray tank.

USE OF SURFACTANTS

Temporary discoloration of some turf types may result from use of surfactants or adjuvants with Crossing CAL Herbicide. High temperatures and high relative humidity may increase the risk of temporary discoloration. Use of surfactants is not recommended.

MIXING WITH LIQUID FERTILIZERS

Utilize local recommendations for sources and rates of fertilizer and refer to mixing directions on the fertilizer labels (e.g. UAN or urea solutions). Determine the compatibility of this product with the desired fluid fertilizer by mixing small proportional quantities in advance (See the "TANK MIXTURES COMPATIBILITY" section below)

TANK MIXTURES COMPATIBILITY

Crossing CAL Herbicide is believed to be compatible with most herbicides, fungicides, insecticides, growth regulators, liquid fertilizers and spray adjuvants commonly used in turf and ornamental plant management. However, when preparing a new tank mix conduct an appropriate compatibility test by mixing proportional amounts of all spray ingredients in a test vessel (jar) prior to tank mixing with other products. Shake the mixture vigorously and allow it to stand for five to ten minutes. Rapid precipitation of the ingredients and failure to re-suspend when shaken indicates that the mixture is incompatible and should not be applied. Provided the jar test indicates the mixture to be compatible, prepare the tank mixture as follows: Fill the tank one fourth full with water. With the agitator operating, add the recommended amounts of ingredients using the following order: dry granules first, and liquid suspensions (flowables) second. As the agitation continues and the tank is filled with water add EC products third followed by the addition of water soluble products.

Read and observe mixing instructions of all tank mix partners. Also read each product's label for Directions for Use, Precautionary Statements and Restrictions and Limitations. The most restrictive labeling applies in all tank mixtures. No label dosage rate should be exceeded. Tank mixture recommendations are for use only in states where the companion products and application site are registered. In addition, certain states or geographical regions may have established dosage rate limitations. Consult your state Pesticide Control Agency for additional information regarding the maximum use rates.

Use Crossing CAL Herbicide spray mixture immediately after mixing. Do not store the mixture.

Ground Equipment

Power sprayers: Uniform and accurate spray coverage requires proper calibration and operation of spray equipment. The use of marker dyes or foams can improve application accuracy. Boom sprayers equipped with appropriate flat fan nozzles, tips and screens are ideal for broadcast applications.

Power sprayers fitted with spray wand/gun may al[illegible]e used for broadcast application after careful calibra[illegible]n by the applicator. Power sprayers fitted with spray wand/gun are suitable for spot treatmen[illegible]

Hand operated sprayers: Backpack and compression sprayers are appropriate for small turfgrass areas and spot treatments. Wands fitted with a flat fan nozzle tip should be held stationary at the proper height during application. A side to side or swinging arm motion can result in uneven coverage.

Apply this product in a sufficient volume of carrier solution to provide a uniform spray distribution. Spray volumes of 20 – 175 gallons per acre (0.5 to 4.0 gal/1,000 ft^2) with spray pressures adjusted to 20 – 40 psi are appropriate. Apply the higher spray volumes for dense weed populations.

Sprayer Equipment Clean-Out
After spraying Crossing CAL Herbicide and before using sprayer equipment for any other applications, the sprayer must be thoroughly cleaned using the following procedure:

1. Drain sprayer tank, hoses, and spray boom and thoroughly rinse the inside of the sprayer tank with clean water to remove sediment and residues. In addition, thoroughly flush sprayer hoses, boom, and nozzles with clean water.
2. Fill the tank 1/2 full with clean water, and add appropriate detergent or ammonia (follow manufacturer's directions for use). Fill the tank to capacity and operate the sprayer for 15 minutes to flush hoses, boom, and nozzles.
3. Drain the sprayer system. Rinse the tank with clean water and flush through the hoses, boom, and nozzles. Remove and clean spray tips and screens separately.
4. Properly dispose of all cleaning solution and rinsate in accordance with Federal, State and local regulations and guidelines.

Do not drain or flush equipment on or near desirable trees or plants. Do not contaminate any body of water including irrigation water that may be used on other plants.

Weed Control in Turfgrasses (42.3)

Use Precautions for Turf Use

Turfgrass Safety

This product may be used on seeded, sodded or sprigged turgrasses that are well established. First application of this product can be made following the second mowing providing the turfgrass has developed into a uniform stand with a good root system. Turfgrass injury could result from application of this product on turfgrass that is not well established or has been weakened by stresses such as unfavorable weather conditions, disease, chemical or mechanical influences.

When applied as directed under the conditions described, the following established turfgrasses are tolerant to Crossing CAL Herbicide at the recommended use rates in a range from 0.125 to 0.375 lb a.i./acre (4 to 12 fl. oz/acre or 0.092 to 0.275 fl. oz./1,000 sq. ft).

Table 27. Tolerant grasses.

Grass Type*	Maximum Use Rate Single Application		
Cool Season Grasses	lb ai/A	Fluid ounces per 1000 ft^2	Fluid ounces per acre
Bentgrass, creeping *(Agrostis sp.)*	0.125	0.092	4
Bluegrass, Kentucky *(Poa pratensis)* Bluegrass, Rough[2] *(Poa trivialis)* Fescue, fine[1] *(Festuca rubra)* Fescue, tall[1] *(Festuca arundinacea)* Ryegrass, perennial *(Lolium perenne)*	0.125 - .25	0.092 - 0.18	4 - 8
Warm Season Grasses			
Bahiagrass[2] *(Paspalum notatum)* Bermudagrass *(Cynodon dactylon)* & hybrids Buffalograss *(Buchloe dactyloides)* Carpetgrass *(Axonopus affinis)* Centipedegrass *(Eremochloa ophuiroides)* Kikuyugrass *(Pennisetum clandestinum)* Seashore Paspalum (Paspalum vaginatum) St.Augustinegrass *(Stenotaphrum secundatum)*[2] Zoysiagrass *(Zoysia japonica)*[2]	0.25 - 0.375	0.18 – 0.275	8 - 12

1. Use of this product on certain cultivars of Chewings Fescue Fine Fescue or Tall Fescue cultivars may result in undesirable injury.
2. Crossing CAL Herbicide application may cause temporary discoloration to exposed leaf surfaces on St. Augustinegrass and certain cultivars of zoysiagrass bahiagrass,.or rough bluegrass. Treated turfgrass will recover with new growth. Discolored leaf tissue will be removed with mowing. To reduce potential for discoloration, do not apply Crossing CAL Herbicide on turfgrass that is weakened by weather, mechanical, chemical, disease or other related stress. Maintain proper cultural practices such as adequate moisture and fertility levels to promote healthy turf growth.

* Crossing CAL Herbicide has demonstrated tolerance on both cool and warm season turfgrasses. However, not all varieties have been evaluated. Turfgrass managers desiring to treat newly released varieties should first apply Crossing CAL Herbicide to a small area prior to treatment of larger areas.

Application to reseeded, overseeded or sprigged areas:
Reseeding, overseeding or sprigging of treated areas within one (1) month after application of this product could inhibit the establishment of desirable turfgrasses. Overseeding of bermudagrass with perennial ryegrass at two (2) to four (4) weeks after an application can be done if slight injury to perennial ryegrass can be tolerated.

Best results are obtained for reseeding or overseeding when mechanical or power seeding equipment (slit seeders) are used to give good seed to soil contact and proper soil cultivation, irrigation and fertilization practices are followed.

Sod Production:
This product may be applied to established sod. Allow sod to establish a good root system, a uniform stand and to fill in the exposed edges. It is recommended that sod be established for at least three (3) months before an application of Crossing CAL Herbicide. Do not apply this product within three (3) months of harvest.

Other Use Precautions:
Do not apply to golf course putting greens or tees.

Do not use on turfgrasses other than those listed on this label.

Do not apply with surfactants unless previous experience has demonstrated combinations with surfactant to be physically compatible and non-injurious to the grass type in question.

Do not graze or feed livestock forage cut from areas treated with Crossing CAL Herbicide.

Do not apply directly to landscape ornamentals or ornamental beds.

Temporary turfgrass discoloration has been observed when Primo has been either tank-mixed or applied within 7 days of a Crossing CAL Herbicide application. It is recommended that Primo applications be made 7 days prior to, or after Crossing CAL Herbicide application to reduce risk of turfgrass discoloration.

PREEMERGENCE CONTROL OF ANNUAL GRASSES AND BROADLEAF WEEDS

Control of Summer Annual Weeds:
Apply Crossing CAL Herbicide at the application rate for the turf species being managed (4 to 12 fluid ounces/acre or 0.092 to 0.275 fl. oz./1,000 sq. ft.) prior to weed seed germination in early spring. Applications in early spring will control or suppress the following summer annuals:

Black medic	*(Medicago lupulina)*
Common purslane	*(Portulaca oleracea)*
Pigweed, Redroot	*(Amaranthus retroflexus)*
Pigweed, Smooth	*(Amaranthus hybridus)*
Prostrate knotweed	*(Polygonum aviculare)*
Spurge	*(Euphorbia spp.)*
Prostrate spurge	*(Euphorbia supina)*
Spotted spurge	*(Euphorbia maculata)*
Barnyardgrass	*(Echninochloa crusgalli)*
Crabgrass, large	*(Digitraria sanguinalis)*
Crabgrass, smooth	*(Digitaria ischaemum)*
Foxtail, green	*(Setaria viridis)*
Foxtail, yellow	*(Setaria glauca)*
Goosegrass	*(Eleusine indica)*

Control of Winter Annual Weeds:
Apply Crossing CAL Herbicide at the application rate for the turf species being managed (4 to 12 fluid ounces/acre or 0.092 to 0.275 fl. oz./1,000 sq. ft.) in late summer or early fall to control or suppress the following winter annual weeds:

Buttercups	*(Ranunculus spp.)*
Carolina geranium	*(Geranium carolinianum)*
Common chickweed	*(Stellaria media)*
Common groundsel	*(Senecio vulgaris)*
Corn Speedwell	*(Veronica arvensis)*
Hairy bittercress	*(Cardamine hirsuta)*
Henbit	*(Lamium amplexicaule)*
Johnnyjumpup violet	*(Viola rafeinesquii)*
Knawel	*(Scleranthus annuus)*
Large hop clover	*(Trifolium campestre)*
Mouseear chickweed	*(Cerastium vulgatum)*
Parsley-piert	*(Alchemilla microcarpa)*
Spurweed	(Soliva pterosperma)
Annual bluegrass	*(Poa annua)*
Annual ryegrass	*(Lolium multiflorum)*

To broaden the spectrum for preemergence control or suppression of annual grasses and/or broadleaf weeds, Crossing CAL Herbicide can be tank mixed with an EPA registered annual grass herbicide. Applications in combination with prodiamine, pendimethalin, dithiopyr or oxadiazon will provide broad spectrum control of the weeds listed in Table 28. Read the label recommendations of the tank mix partner to determine grass species safety, use rate and application procedures. Follow all label restrictions, use directions and precautionary statements before using these tank mixtures. Read and follow the "TANK MIXTURES COMPATIBILITY" section of this label for instructions on how to determine the compatibility of tank mixtures.

POSTEMERGENCE CONTROL OF ANNUAL, BIENNIAL & PERENNIAL BROADLEAF WEEDS
Crossing CAL Herbicide will control or suppress the weeds listed in Table 23 when applied alone shortly after weeds have emerged. Apply Crossing CAL Herbicide at rates from 4 to 12 fl. oz/acre (0.092 to 0.275 fl. oz./1,000 sq. ft.). Do not exceed the application rate specified for the turfgrass species in Table 27. To broaden the weed spectrum and increase effectiveness for certain weeds listed in Table 4, Crossing CAL Herbicide may be tank mixed with other EPA registered postemergence herbicides. Control of emerged annual grass weeds may be improved by combining Crossing CAL Herbicide with Acclaim®, Dimension®, MSMA or Drive®. Read the label recommendations of the tank mix partner to determine turfgrass species safety, use rate and application procedures. Follow all label restrictions, use directions and precautionary statements before using these tank mixtures. Read and follow the "TANK MIXTURES COMPATIBILITY" section of this label for instructions on how to determine the compatibility of tank mixtures.

When used as directed Crossing CAL Herbicide will control or suppress the following weeds.

Table 28. Weeds Controlled or Suppressed by Crossing CAL Herbicide

BROADLEAVES	SCIENTIFIC NAMES
Bedstraw, catchweed	*(Galium aparine)*
Beggarweed, Florida	*(Desmodium tortuosum)*
Bittercress	*(Cardamine spp.)*
Black medic	*(Medicago lupulina)*
Buttercups	*(Ranunculus spp.)*
Carolina geranium	*(Geranium carolinianum)*
Carpetweed	*(Mollugo verticillata)*
Chickweed, common	*(Stellaria media)*
Chickweed, mouseear	*(Cerastium vulgatum)*
Cinquefoil	*(Potentilla spp.)*
Clover	*(Trifolium spp.)*
Copperleaf	*(Ascalypha spp.)*

Cudweed	*(Gnaphalium)*
Dandelion	*(Taraxacum nale)*
Dock, Curly	*(Rumex crispus)*
Dollarweed	*(Hydrocotyl umbellata)*
Eclipta	*(Eclipta prostrata)*
Evening primrose	*(Oenothera biennis)*
Fiddleneck	*(Amsinckia spp.)*
Filaree	*(Erodium spp.)*
Galinsoga	*(Galinsoga ciliate)*
Goldenrod	*(Solidago spp.)*
Ground ivy	*(Glechoma hederacea)*
Groundsel, common	*(Senecio vulgaris)*
Henbit	*(Lamium amplexicaule)*
Knawel	*(Scleranthus annuus)*
Knotweed, prostrate	*(Polygonum aviculare)*
Kochia	*(Kochia scoparia)*
Lambsquarters, common	*(Chenopodium album)*
Lawn burweed (spurweed)	*(Soliva pterosperma)*
Lespedeza, common	*(Lespedeza striata)*
Mallow, common	*(Malva neglecta)*
Parsley piert	*(Alchemilla arvensis)*
Pigweed, Redroot	*(Amaranthus retroflexus)*
Pigweed, Smooth	*(Amaranthus hybridus)*
Pigweed, Tumble	*(Amaranthus albus)*
Pineapple weed	*(Matricaria matricarioides)*
Plantain, buckhorn	*(Plantago lanceolata)*
Puncture weed	*(Tribulus terrestris)*
Purslane, common	*(Portulaca oleracea)*
Pusley, Florida	*(Richardia scabra)*
Redweed	*(Melochia corchorifolia)*
Rocket, London	*(Sisymbrium irio)*
Shepherd's purse	*(Capsella bursa-pastoris)*
Smartweed, Pennsylvania	*(Polygonum pensylvanicum)*
Sorrel, Red	*(Rumex acetosella)*
Speedwell	*(Veronica spp.)*
Spurge, (annuals)	*(Euphorbia spp.)*
Spurge, prostrate	*(Euphorbia humistrata)*
Spurge, spotted	*(Euphorbia maculata)*
Star of Bethlehem	*(Ornithogalum umbellatum)*
Velvetleaf	*(Abutilon theophrasti)*
Violet, wild	*(Viola pratincola)*
Violet, Johnny-jump-up	*(Viola rafeinesquii)*
Wild garlic	*(Allium vineale)*
Wild onion	*(Allium canadense)*
Woodsorrel, creeping	*(Oxalis corniculata)*
Woodsorrel, yellow	*(Oxalis stricta)*

POSTEMERGENCE CONTROL OF ANNUAL AND PERENNIAL SEDGES

Crossing CAL Herbicide will control or suppress sedges (Table 29) when applied at a rate of 4 to 12 fl oz/acre (0.092 to 0.275 fl. oz./1,000 sq. ft.). Apply the highest rate consistent with the rate needed for turfgrass safety in Table 27. Rates lower than 12 fl oz/acre (0.275 fl. oz/1,000 sq. ft.) will generally control sedges for at least 60 days. A rate of 12 fl oz/acre (0.275 fl oz/1,000 sq. ft.) will provide approximately 75% control for at least 60 days. Yellow nutsedge (*Cyperus esculentus*) is the most susceptible sedge species.

Good spray coverage is needed for optimum control of sedges. Temporary discoloration of some turfgrass species may result from use of surfactant. Use of surfactants is not recommended.

Table 29. Sedge species controlled or suppressed by Crossing CAL Herbicide

Common Name	SCIENTIFIC NAME
Kyllinga, green	*(Kyllinga brevifolia)*
Kyllinga, false green	*(Kyllinga gracillima)*
Nutsedge, purple[1]	*(Cyperus rotundus)*
Nutsedge, yellow	*(Cyperus esculentus)*
Sedge, globe	*(Cyperus globulosus)*
Sedge, cylindric	*(Cyperus retrorsus)*
Sedge, Surinam	*(Cyperus surinamensis)*
Sedge, Texas	*(Cyperus polystachyos)*

1. PURPLE NUTSEDGE; For optimum control of purple nutsedge, split applications are recommended (Table 30). Apply 4-8 ounces per acre as an initial application followed by a second application when evidence of actively growing purple nutsedge is visible. Do not exceed the maximum rate per acre based on turfgrass variety listed in Table 27; Tolerant grases.

Table 30

Split Application Rate Options		
Grass Type	Option 1 (fluid ounces/acre)	Option 2 (fluid ounces/acre)
Cool Season Grasses excluding Bentgrass (see Table 1)	4 oz followed by 4 oz 35 DAIT	6 oz followed by 2 oz 35 DAIT
Warm Season Grasses (see Table 1)	8 oz followed by 4 oz 35 DAIT	6 oz followed by 6 oz 35 DAIT

DAIT = Days After Initial Treatment

34
34

POSTEMERGENCE CONTROL OF GRASSY WEEDS

Crossing CAL Herbicide will control or suppress specific annual grasses (Table 26) when applied at a rate of 4 to 12 fl oz/acre (0.092 to 0.275 fl. oz./1,000 sq. ft.). Apply the highest rate consistent with the rate needed for turfgrass tolerance in Table 27. Rates lower than 12 fl oz/acre (0.275 fl. oz/1,000 sq. ft.) will generally control grasses for at least 60 days. Crossing CAL Herbicide works best if applied when the annual grasses are small (pre tiller stage) and actively growing.

Good spray coverage is needed for optimum control of grasses. Temporary discoloration of some turfgrass species may result from use of surfactant. Use of surfactants is not recommended.

Table 30

Common Name	Scientific Name
Goosegrass	*Eleusine indica*

LABEL TRACKING INFORMATION (43.0)

Label Code: Crossing CAL Herbicide 09-15-09 ABN

FMC Corporation
Agricultural Products Group
1735 Market Street
Philadelphia Pennsylvania 19103
215-299-6000

NEXT

LABEL

279-3370 10-30-2009 1/34

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF
PREVENTION, PESTICIDES AND
TOXIC SUBSTANCES

Mr. Michael C. Zucker
Senior Registration & Label Specialist
FMC Corporation – Agricultural Product Group
1735 Market Street
Philadelphia, PA 19103

OCT 30 2009

RE: Notification of an Alternate Brand Name: Dismiss CAL Herbicide
EPA Registration Number: 279-3370
Date of Submission: September 16, 2009

Dear Mr. Zucker:

The Agency is in receipt of your Application for Pesticide Notification under Pesticide Registration Notice (PRN) 98-10 dated September 16, 2009, for the above mentioned product. The Registration Division (RD) has conducted a review of this request for its applicability under PRN 98-10 and finds that the actions requested fall within the scope of PRN 98-10. The label submitted with the application has been stamped "Notification" and will be placed in our records.

If you have any questions, please me directly at 703-305-6249 or Joyce Edwards of my staff at 703-308-5479.

Sincerely,

Linda Arrington
Notifications & Minor Formulations Team Leader
Registration Division (7505P)
Office of Pesticide Programs

Please read instructions on reverse before completing form. Form Approved. OMB No. 2070-0060. Approval expires 2-28-95

EPA

United States
Environmental Protection Agency
Washington, DC 20460

- [ ] Registration
- [ ] Amendment
- [x] Other

OPP Identifier Number

Application for Pesticide - Section I

1. Company/Product Number	2. EPA Product Manager	3. Proposed Classification
FMC Corporation/ 279 -3370	Ms. Joanne I. Miller	[x] None [ ] Restricted
4. Company/Product (Name)	**PM#**	
FMC Corporation/Dismiss CAL Herbicide	23	

5. Name and Address of Applicant *(Include ZIP Code)*

FMC Corporation - Agricultural Products Group
1735 Market Street
Philadelphia, PA 19103

[ ] *Check if this is a new address*

6. Expedited Reveiw. In accordance with FIFRA Section 3(c)(3)(b)(i), my product is similar or identical in composition and labeling to:

EPA Reg. No. 279 - 3370

Product Name F6285 4F CAL Herbicide

Section - II

- [ ] Amendment - Explain below.
- [ ] Resubmission in response to Agency letter dated _____
- [x] Notification - Explain below.
- [ ] Final printed labels in repsonse to Agency letter dated
- [ ] "Me Too" Application.
- [ ] Other - Explain below.

NOTIFICATION

OCT 30 2009

Explanation: Use additional page(s) if necessary. (For section I and Section II.)

Notification of an alternate brand name per PR Notice 98-10.
This notification is consistent with the provisions of PR Notice 98-10 and EPA regulations at 40 CFR 152.46, and no other changes have been made to the labeling or the confidential statement of formula of this product. I understand that it is a violation of U.S.C. Sec.1001 to willfully make any false statement to EPA. I further understand that if this notification is not consistent with the terms of PR Notice 98-10 and 40 CFR 152.46, this product may be in violation of FIFRA and I may be subject to enforcement action and penalties under sections 12 and 14 of FIFRA.

Section - III

1. Material This Product Will Be Packaged In:

Child-Resistant Packaging	Unit Packaging	Water Soluble Packaging	2. Type of Container
[ ] Yes	[ ] Yes	[ ] Yes	[ ] Metal
[x] No	[x] No	[x] No	[x] Plastic
** Certification must be submitted*	If "Yes" Unit Packaging wgt. / No. per container	If "Yes" Package wgt / No. per container	[ ] Glass [ ] Paper [ ] Other (Specify) _____

3. Location of Net Contents Information	4. Size(s) Retail Container	5. Location of Label Directions
[ ] Label [x] Container		[x] on label/container

6. Manner in Which Label is Affixed to Product: [x] Lithograph / Paper glued / Stenciled [ ] Other _____

Section - IV

1. Contact Point *(Complete items directly below for identification of individual to be contacted, if necessary, to process this application.)*

Name	Title	Telephone No. (Include Area Code)
Michael C. Zucker	Senior Registration & Label Specialist	(215)299-5876

Certification

I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowlingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.

6. Date Application Received (Stamped)

2. Signature	3. Title	4. Typed Name	5. Date
Michael C. Zucker	Senior Registration & Label Specialist	Michael C. Zucker	September 16, 2009

FMC Agricultural Products

FMC Corporation
1735 Market Street
Philadelphia, PA 19103

215.299.6000 Phone
215.299.6468 Fax

www.fmc.com

September 16, 2009

United States Environmental Protection Agency
Document Processing Desk (Notifications)
Office of Pesticide Programs (7504P)
One Potomac Yard, Room S-4900
2777 South Crystal Drive
Arlington, VA 22202

Dear Ms. Miller:

Subject: Dismiss CAL Herbicide
EPA Reg. No. 279-3370

Notification of an Alternate Brand Name per PR Notice 98-10.

FMC is notifying the Agency that Dismiss CAL Herbicide is an alternate brand name for F6285 4F CAL Herbicide.

Enclosed please find the following documents:

Cover Letter
Form 8570-1
One copy of the Dismiss CAL Herbicide label.

If you have any questions, or if I can be of any further assistance, please feel free to contact me at (215) 299-5876 or by e-mail at mike_zucker@fmc.com.

Sincerely,

Michael C. Zucker
Senior Registration & Label Specialist
FMC Corporation
Agricultural Products Group

FMC

Dismiss CAL
Herbicide

For Use Only by Individuals/Firms Certified And/or Licensed as Pesticide Applicators

NOTIFICATION

OCT 3 0 2009

EPA Reg. No. 279-3370 **EPA Est. 279-**

Active Ingredient: By Wt. (1)

Sulfentrazone	39.6%
Inert Ingredients:	60.4%
	100.0%

Contains 4 pounds of active ingredient per gallon.
U.S. Patent No. 4,818,275

KEEP OUT OF REACH OF CHILDREN

CAUTION

FIRST AID (2.0)

If Inhaled
Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice.
If on Skin or Clothing
Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.
If in Eyes
Hold eye open and rinse slowly and gently with water for 15- 20 minutes. Remove contact lenses, if present, after the first 5 minutes. Then continue rinsing eye. Call a poison control center or doctor for treatment advice.
If Swallowed
Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person.

HOTLINE NUMBER (3)

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-331-3148 for emergency medical treatment information.

Note to Physician: Sulfentrazone is expected to have low oral and dermal toxicity, and moderate inhalation toxicity. It is expected to be slightly irritating to the skin and minimally irritating to the eyes. Treatment is otherwise controlled removal of exposure followed by symptomatic and supportive care.

See other sections for precautionary information.

ACTIVE INGREDIENT MADE IN CHINA AND FORMULATED AND PACKAGED IN USA.

From FMC

Group 14 Herbicide

ATTENTION

-Although this label may appear similar to the lab[illegible] a product you may have used, there may be important label differences. Users must read, understand and strictly follow all label directions, precautions and restrictions.

-It is the user's responsibility to be sure the product is approved for sale or use on the intended crop and for use in the specific geographic area.

-It is the user's responsibility to be aware of and to follow all State or local precautions or restrictions not appearing on this product label.

-Prior to purchase or use of this product, read the Terms of Sale or Use and Limitation of Warranty and Liability on page 2 of this label. If the terms and conditions are unacceptable, return the product immediately in the original and unopened container.

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PRECAUTIONARY STATEMENTS (4.0)

Hazards to Humans and Domestic Animals (4.1)

Caution

Causes moderate eye irritation. Harmful if inhaled, swallowed, or absorbed through skin. Avoid breathing vapor or spray mist. Avoid contact with skin, eyes or clothing.

Personal Protective Equipment (PPE) (4.2)

Applicators and other handlers must wear: long-sleeved shirt and long pants, chemical-resistant gloves made of any waterproof material such as polyethylene or polyvinyl chloride, and shoes plus socks.

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product. Do not reuse them. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

User Safety Recommendations:

Users should:

• Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

Environmental Hazards (4.3)

This pesticide is toxic to marine/estuarine invertebrates. Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Drift and runoff may be hazardous to terrestrial and aquatic plants in neighboring areas. Do not contaminate water when disposing of equipment washwaters or rinsate.

Groundwater advisories: This chemical is known to leach through soil into groundwater under certain conditions as a result of label use. Use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination.

Do not use on coarse soils classified as sand, which have less than 1% organic matter.

Surface water advisory: Sulfentrazone can contaminate surface water through spray drift. Under some conditions, sulfentrazone may also have a high potential for runoff into surface water (primarily via dissolution in runoff water), for several to many months post-application. These include poorly draining or wet soils with readily visible slopes toward adjacent surface waters, frequently flooded areas, areas overlying extremely shallow groundwater, areas with in-field canals or ditches that drain to surface water, areas not separated from adjacent surface waters with vegetated filter strips, and areas over-lying tile drainage systems that drain to surface waters.

Physical/Chemical Hazards (4.4)

Do not use or store near heat or open flame.

DIRECTIONS FOR USE (5.0)

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

For Use Only in the State of California.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application.

Do not apply more than the allowed amount of Dismiss CAL Herbicide per acre per twelve-month period as stated in Table 2. The twelve-month period is considered to begin upon the initial Dismiss CAL Herbicide application.

For any requirements specific to your State or Tribe, consult the Agency responsible for pesticide regulation.

AGRICULTURAL USE REQUIREMENTS (5.1)

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry interval. These requirements only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 12 hours.

Personal Protective Equipment (PPE) required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water is: Coveralls over long-sleeved shirt and long pants, chemical-resistant gloves made of any waterproof material, and shoes plus socks.

Non-Agricultural Use Requirements

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries, or greenhouses.

Re-entry Statement: Do not allow people (other than applicator) or pets on treatment area during application. Do not enter treatment area until spray has dried.

STORAGE AND DISPOSAL (5.?

Do not contaminate water, food or feed by storage or disposal. Do not use or store around the home.

Pesticide Storage
Store product in original container only, away from other pesticides, fertilizer, food or feed.
Store in a cool, dry place and avoid excess heat.

In Case of Spill
In case of spill, avoid contact, isolate area and keep out animals and unprotected persons. Confine spills. Call FMC: (800) 331-3148.

To Confine Spill
To confine spill: If liquid, dike surrounding area or absorb with sand, cat litter or commercial clay. If dry material, cover to prevent dispersal. Place damaged package in a holding container. Identify contents.

Pesticide Disposal
Waste resulting from the use of this product may be disposed of at an approved waste disposal facility.

Container Disposal
Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: (For containers greater than 5 gallons) Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. (For containers 5 gallons or less) Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow
begins to drip. Repeat this procedure two more times. Triple rinse (or equivalent). Then offer for recycling if available, or reconditioning, or puncture and dispose of in a sanitary landfill, or incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of
smoke.

Returnable/Refillable Containers - Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. ¶ To clean the container before final disposal, empty the remaining contents into application equipment or mix tank. Fill the container about 10% full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times.

CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY (6.0)

Notice: Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before buying or using this product. If the terms are not acceptable, return the product at once, unopened, and the purchase price will be refunded.

The Directions for Use of this product must be followed carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Crop injury, ineffectiveness, or other unintended consequences may result because of such factors as manner of use or application, weather or crop conditions beyond the control or FMC or Seller. All such risks shall be assumed by Buyer and User, and, to the extent consistent with applicable law, Buyer and User agree to hold FMC and Seller harmless for any claims relating to such factors.

Seller warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated on the Directions for Use when used in accordance with the directions under normal conditions of use. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, FMC MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE, NOR ANY OTHER EXPRESS OR IMPLIED WARRANTIES WITH RESPECT TO THE SELECTION, PURCHASE, OR USE OF THIS PRODUCT. Any warranties, express or implied, having been made are inapplicable if this product has been used contrary to label instructions, or under abnormal conditions, or under conditions not reasonably foreseeable to (or beyond the control of) seller or FMC, and, to the extent consistent with applicable law, buyer assumes the risk of any such use.

To the extent consistent with applicable law, FMC or seller shall not be liable for any incidental, consequential or special damages resulting from the use or handling of this product. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF FMC AND SELLER FOR ANY AND ALL CLAIMS. LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT OR, AT THE ELECTION OF FMC OR SELLER, THE REPLACEMENT OF THE PRODUCT.

This Conditions of Sale and Limitation of Warranty and Liability may not be amended by any oral or written agreement.

RESISTANCE MANAGEMENT (7.0)

Some weeds are known to develop resistance to herbicides that have been used repeatedly. While the development of herbicide resistance is well understood, it is not easily predicted. Therefore herbicides should be used in conjunction with the resistance management strategies in the area. Consult the local or State agricultural advisors for details. If herbicide resistance should develop in the area, this product used alone may not continue to provide sufficient levels of weed control. If the reduced levels of control can not be attributed to improper application techniques, improper use rates, improper application timing, unfavorable weather conditions or abnormally high weed pressure, a resistant strain of weeds may have developed.

To reduce the potential for weed resistance use this product in a rotation program with other classes of chemistry and modes of action. Always apply this product at the recommended rates and in accordance with the use directions. Do not use less than recommended label rates alone or in tank mixtures. Do not use reduced rates of the tank mix partner. For optimum performance, scout fields carefully and begin applications when weeds are smaller rather than larger. If resistance is suspected, contact the local or State agricultural advisors.

GENERAL INFORMATION (8.0)

Dismiss CAL Herbicide is a selective soil-applied herbicide for the control of susceptible broadleaf, grass and sedge weeds. Dismiss CAL Herbicide is formulated as a 4 pounds per gallon flowable containing the active ingredient, sulfentrazone. **If adequate moisture (1/2" to 1") from rainfall or irrigation is not received within 7 to 10 days after the Dismiss CAL Herbicide treatment, a shallow incorporation may be needed to obtain desired weed control.** When activating moisture is received after dry conditions, Dismiss CAL Herbicide will provide a reduced level of control of susceptible germinating weeds. Soil applications of Dismiss CAL Herbicide must be made before crop seed germination to prevent injury to the emerging crop seedlings. When applications after planting are delayed, injury may occur if seeds are germinating or if they are located near the soil surface

Observe all instructions, crop restrictions, mixing directions, application precautions, replanting directions, rotational crop guidelines and other label information of each product when tank mixing with Dismiss CAL Herbicide.

Proper handling instructions: Dismiss CAL Herbicide may not be mixed or loaded within 50 feet of any wells (including abandoned wells and drainage wells), sinkholes, perennial or intermittent streams and rivers, and natural or impounded lakes and reservoirs. This setback does not apply to properly capped or plugged abandoned wells and does not apply to impervious pads or properly diked mixing/loading areas.

Operations that involve mixing, loading, rinsing, or washing of this product into or from pesticide handling or application equipment or containers within 50 feet of any well are prohibited unless conducted on an impervious pad constructed to withstand the weight of the heaviest load that may be positioned on or moved across the pad. Such a pad shall be designed and maintained to contain any product spills or equipment leaks, container or equipment rinse or washwater, and rainwater that may fall on the pad. Surface water shall not be allowed to either flow over or from the pad, which means the pad must be self-contained. The pad shall be sloped to facilitate material removal. An unroofed pad shall be of sufficient capacity to contain at a minimum 110% of the capacity of the largest pesticide container or application equipment on the pad. A pad that is covered by a roof of sufficient size to completely exclude precipitation from contact with the pad shall have a minimum containment capacity of 100% of the capacity of the largest pesticide container or application equipment on the pad. Containment capacities as described above shall be maintained at all times. The above specific minimum containment capacities do not apply to vehicles when delivering pesticide shipments to the mixing/loading site. States may have in effect additional requirements regarding wellhead setbacks and operational containment.

Product must be used in a manner that will prevent back siphoning in wells, spills or improper disposal of excess pesticide, spray mixtures or rinsates.

GENERAL APPLICATION INSTRUCTIONS (9.0)

Dismiss CAL Herbicide may be applied to soil as a preplant incorporated treatment or as a pre-emergence (prior to weed and/or crop emergence) surface application. Additional application methods include post-plant treatments, over-the-top and layby, in various crops. Application methods are defined in the following Crop Use Directions sections.

Preplant incorporated treatments require a uniform surface application followed by incorporation. Do not incorporate to a depth greater than 2 inches which may result in poor weed control. Care must be taken not to create overlaps in treated zones due to soil movement, which will result in excessive Dismiss CAL Herbicide rates that could result in adverse crop response.

All soil applications and the residual activity of post-plant applications of Dismiss CAL Herbicide require adequate moisture for herbicidal activation. The ultimate amount of moisture, whether supplied by rainfall or irrigation, is dependent on several factors. These factors include but are not limited to existing soil moisture at application, soil type, organic matter and tilth. In crop situations dependent on rainfall, Dismiss CAL Herbicide can await activating moisture for extended periods (10 to 14 days or longer) depending on the soil parameters described above. Once activated, Dismiss CAL Herbicide will provide activity on existing weeds. The level of activity will depend on the weed species and their size at time of activation. Where irrigation is not available and rainfall has not provided activation, particularly for surface applications of Dismiss CAL Herbicide, a shallow incorporation is recommended for destruction of any germinating weeds and to incorporate Dismiss CAL Herbicide. Herbicide incorporation will initiate the process of activation with existing soil moisture. In circumstances where prolonged periods without rainfall and/or irrigation is not possible, alternative or additional weed management practices (cultivation or post-applied herbicides) may be required.

Extreme care must be exercised and the Crop Specific Use Directions followed exactly in crops allowing post plant applications of Dismiss CAL Herbicide. Over-the-top and lay-by applications will provide contact and residual weed control, depending on species. The addition of surfactants may increase contact weed control performance but may also increase the risk of adverse crop response as well.

CALIFORNIA ONLY SPECIFIC RESTRICTIONS ON APPLICATIONS OF DISMISS CAL HERBICIDE. (9.1)

Artificial Recharge Basins. Do not use below the high water line inside artificial recharge basins (a surface facility, such as an infiltration pond or basin, or spreading ground that is specifically designed and managed to increase the infiltration of introduced surface water supplies into a ground water basin)* unless this product is applied six months or more before the basin is used to recharge ground water.

Unlined Canals and Ditches. Do not use below the high water line inside unlined canals and ditches unless either (a) the pesticide user can document that the percolation rate of the canal or ditch is equal to or less than 0.2 inches per hour (0.002 gallons per minute per square foot), or (b) the pesticide is applied six months before water is run in the canal or ditch.

Rights-of-Way. Do not use on engineered rights-of-way in areas established by the California Department of Pesticide Regulation as leaching or runoff ground water protection areas* unless either (a) any runoff from the treated right-of-way shall pass through a noncrop fully vegetated area adjacent, and equal in area, to the treated area, or spread out onto an adjacent unenclosed fallow field that is at least 300 feet long and that will not be irrigated for six months following application with the exception of the addition of adequate moisture that is required for herbicidal activation following application as described under General Application Instructions, with full consideration of any plantback restrictions, or (b) the property operator complies with any permit issued pursuant to the storm water provisions of the federal Clean Water Act eprtaining to the treated area.

Runoff Ground Water Protection Areas. Do not use in areas identified by the California Department of Pesticide Regulation as a runoff ground water protection areas* unless one of the following management practices can be met:

(a) Soil disturbance. Within seven days before this product is applied, the soil to be treated shall be disturbed by using a disc, harrow, rotary tiller, or other mechanical method. This subsection does not apply to the area to be treated that is immediately adjacent to the crop row and that does not exceed 33 percent of the distance between crop rows or, in citrus, to the band from the tree row to the dripline; or

(b) Incorporation of the pesticide. Within 48 hours after the day this product is applied, the pesticide shall be incorporated on at least 90 percent of the area treated; using a disc, harrow, rotary tiller, or other mechanical method, or by sprinkler or low flow irrigation, including chemigation where allowed by the label, using a minimum of ¼ inch of irrigation water and a maximum of one inch as described under General Application Instructions, at application rates that do not cause surface water runoff from the treated property or to wells on the treated property; or

(c) Band treatment. This product is applied as a band treatment immediately adjacent to the crop row so that not more than 33 percent of the distance between rows is treated or, in citrus, not more than the area from the tree row to the dripline is treated; or

(d) Timing of application. This product is applied between April 1 and July 31; or

(e) Retention of runoff on field. For six months following the application, the field shall be designed, by berms, levees, or nondraining circulation systems, to retain all irrigation runoff and all precipitation on, and drainage through, the field. The retention area on the field shall not have a percolation rate of more than 0.2 inches per hour (5 inches per 24 hours); or

(f) Retention of runoff in a holding area off the field. For six months following the application, all runoff shall be channeled to a holding area off the application site, under the control of the property operator, that is designed to retain all irrigation runoff and all precipitation on, and drainage through, the treated field and all other areas draining into that holding area. The holding area shall not have a percolation rate of more than 0.2 inches per hour (5 inches per 24 hours); or

(g) Runoff onto a fallow field. For six months following application, runoff shall be managed so that it runs off into an adjacent unenclosed fallow field at least 300 feet long that is not irrigated for six months after application with the exception of the addition of adequate moisture that is required for herbicidal activation following application as described under General Application Instructions, with full consideration of any plant back restrictions.

Leaching Ground Water Protection Areas. Do not use in areas designated by the California Department of Pesticide Regulation as leaching ground water protection areas* unless either (a) the user does not apply any irrigation water for six months following application of this product or (b) the user applies this product to the planting bed or the berm above the level of irrigation water in the furrow or basin and the water level shall remain at or below that level for six months following application of the pesticide with the exception of the addition of adequate moisture that is required for herbicidal activation following application as described under General Application Instructions, or (c) irrigation is managed so that the ratio of the amount of irrigation water applied divided by the net irrigation requirement is 1.25 or less for six months following application of this product.

* Consult with your County Agricultural Commissioner to determine whether the application will be within an area designated by the California Department of Pesticide Regulation as either a Runoff Ground Water Protection Area or a Leaching Ground Water Protection Area. Details regarding the locations of these Areas are also available via the internet at www.cdpr.ca.gov/docs/emon/ grndwtr/gwp_regs.htm.

DISMISS CAL HERBICIDE PRODUCT USE RATES (10.0)

The following directions for the selection of Dismiss CAL Herbicide application rates are critical to achieve maximum performance and to insure maximum crop safety. The user is required to read and follow the specific Dismiss CAL Herbicide use directions and restrictions for each crop as defined in subsequent sections of this label. The user is cautioned that some crops respond differently to Dismiss CAL Herbicide. This response is governed by the Dismiss CAL Herbicide application rate, various soil factors and inherent crop sensitivity. The Crop Specific Use Directions have been designed to minimize the risk of adverse crop response while maintaining optimum weed control.

Mode of Action (10.1)

Sulfentrazone, the active ingredient in Dismiss CAL Herbicide, is a potent inhibitor of the enzyme Protoporpyrinogen Oxidase IX (PPO IX) required for the formation of chlorophyll. Inhibition of PPO IX enzyme results in the liberation of singlet oxygen (O) that, in turn, disrupts cellular membranes and causes cellular leakage. The ultimate manifestation of the process is cellular death leading to plant death. The selective herbicidal activity of sulfentrazone is based on its greater affinity for the PPO IX enzyme in weed species versus crop plants.

Mechanism of Action (10.2)

Following the application of Dismiss CAL Herbicide to soil, germinating seeds and seedlings take up sulfentrazone from the soil solution. The amount of sulfentrazone in soil solution, and available for weed uptake, is determined primarily by soil type, organic matter and soil pH. Sulfentrazone adsorbs to the clay and organic matter (OM) fractions of soils; effectively limiting the amount of active ingredient immediately available to control weeds. Soils typically increase in clay content through the series from coarse to fine as noted in the following Soil Classification Chart, Table 1.

SOIL CLASSIFICATION CHART

Table 1

COARSE	MEDIUM	FINE
Sand	Sandy clay loam	Silty clay loam
Loamy sand	Sandy clay	Silty clay
Sandy loam	Loam	Clay loam
	Silt loam	Clay
	Silt	

Influence of Soil type, organic matter and pH on Dismiss CAL Herbicide Use Rates and Crop Response

Soil organic matter content can vary widely and independently of soil type and requires an accurate analysis of representative soil samples to determine its content.

Soil pH also exerts a dramatic affect on sulfentrazone availability in the soil solution. As soil pH increases, sulfentrazone availability increases. Accurate soil pH information will require an accurate analysis of representative soil samples.

The total amount of sulfentrazone available in solution, in any given soil, is determined by the interaction of soil type (clay content), % organic matter and pH. The application timing (relative to the emergence of the crop and weeds) and amount of rainfall and/or irrigation received will ultimately determine, in conjunction with the soil parameters and pH, the amount of sulfentrazone in soil solution. It is important to note that Dismiss CAL Herbicide can await activating moisture. However, diminished weed control may result due to the successive increase in weed growth versus timing of activation.

It is important to note that irrigation with highly alkaline water (high pH) following a Dismiss CAL Herbicide soil application can also significantly increase the amount of sulfentrazone available in the soil solution. Irrigation with water having a pH greater than 7.5 could result in adverse crop response. This response will ultimately depend on initial Dismiss CAL Herbicide application rate, timing, amount and pH of irrigation water and sensitivity of the crop and it's growth stage when irrigated. The risk of adverse crop response will lessen with the advance in growth stage among most crops.

The following Crop Specific Use Directions have been designed with specific Dismiss CAL Herbicide recommendations for each crop based on the soil type, soil organic matter, and soil pH interactions described above. The user is cautioned that crop tolerance and weed control performance are based on strict adherence to these recommendations.

APPLICATION INFORMATION (11.0)

Ground Application

Utilize a boom and nozzle sprayer equipped with the appropriate nozzles, spray tips and screens and adjusted to provide optimum spray distribution and coverage at the appropriate operating pressures. Utilize nozzles that produce minimal amounts of fine spray droplets to avoid spray drift or inadequate foliar and/or soil coverage. Apply a minimum of 10 gallons of finished spray per acre by ground. Be aware that overlaps and slower ground speeds while starting, stopping or turning while spraying may result in excessive application and subsequent crop response.

Do not apply when wind speed favors drift beyond the area intended for treatment.

Aerial Application (11.2)

Use nozzle types and arrangements that will provide optimum coverage while producing a minimal amount of fine droplets. Apply sufficient spray volume to achieve adequate coverage. Apply a minimum of 5 gallons of finished spray per acre.

Do not apply when wind speed favors drift beyond the area intended for treatment.

Chemigation Application (11.3)

Dismiss CAL Herbicide may be applied through sprinkler irrigation systems including center pivot, lateral move, end tow, solid set, or hand move irrigation systems. Do not apply this product through any other type of irrigation system. Do not connect any irrigation system (including greenhouse systems) used for pesticide application to a public water system. Crop injury, lack of effectiveness or illegal residues on or in the crop can result from non-uniform distribution of treated water. If you have questions about calibration, you should contact State Extension Service specialists, equipment manufacturers, or other experts. A person knowledgeable of the chemigation system and responsible for its operation, or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.

It is important to note that irrigation with highly alkaline water (high pH) following a Dismiss CAL Herbicide soil application can also significantly increase the amount of sulfentrazone available in soil solution. Irrigation with water having a pH greater than 7.5 could result in adverse crop response. This response will ultimately depend on initial Dismiss CAL Herbicide application rate, application timing, amount and pH of the irrigation water, and the sensitivity of the crop and the growth stage when irrigated. The risk of adverse crop response will lessen with advancing growth stages of most crops.

The system must contain a functional check valve, vacuum relief valve, and low-pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow. The pesticide injection pipeline must also contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump. The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops. The irrigation line or water pump must include a functional pressure switch, which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.

Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

Dismiss CAL Herbicide should be metered into the irrigation system continuously for the duration of the water application. Dismiss CAL Herbicide should be diluted in sufficient volume to insure accurate application over the area to be treated. Use the appropriate amount of water to carry the product to the soil surface. Continuous agitation is required to maintain product suspension in the solution tank. A jar test should be conducted to ensure that phase separation would not occur during dilution and application. Failure to achieve a uniform dilution throughout the time of application may result in undesirable residues or less than desirable weed control. Flush the lines at the completion of the application and then turn the water off promptly.

When using water from public water systems; DO NOT APPLY Dismiss CAL Herbicide THROUGH ANY IRRIGATION SYSTEM **PHYSICALLY CONNECTED** TO A PUBLIC WATER SYSTEM. Public water system means a system for the provision to the public of piped water for human consumption if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days of the year. Dismiss CAL Herbicide may be applied through irrigation systems, which may be **supplied** by a public water system **only if** water from the water system is discharged into a reservoir tank prior to pesticide introduction. There shall be a complete physical break (air gap) between the outlet end of the fill pipe and to top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe. Before beginning chemigation, always make sure that the air gap exists and that there is no blockage of the overflow of the reservoir tank.

Application with Dry Fertilizers (11.40)

Dismiss CAL Herbicide may be applied impregnated on dry fertilizers. When applied as directed with adequate soil coverage, Dismiss CAL Herbicide dry bulk fertilizer mixtures will provide satisfactory weed control.

Follow all Dismiss CAL Herbicide label directions regarding product use rates per acre, registered crops, incorporation, special instructions and precautions.

Apply Dismiss CAL Herbicide/dry fertilizer mixtures with ground equipment only.

All individual state regulations relating to dry bulk fertilizer blending, registration, labeling, and application are the responsibility of the individual and/or company preparing, storing, transporting, selling or applying the Dismiss CAL Herbicide /dry fertilizer mixture.

Impregnation Directions (11.41)

To impregnate Dismiss CAL Herbicide on dry bulk fertilizer, use a closed rotary-drum mixer or other commonly used dry bulk fertilizer blender equipped with suitable spray equipment.

Prepare a slurry of Dismiss CAL Herbicide in a clean container using clear water. Slowly add the Dismiss CAL Herbicide /water slurry to the impregnation spray tank and finish filling as needed with clear water. Spray nozzles must be placed to provide uniform coverage of Dismiss CAL Herbicide onto the fertilizer during mixing.

Refer to the SPRAYER EQUIPMENT CLEAN-OUT section for directions for cleaning impregnation equipment, transport equipment, loading equipment and application equipment.

Apply the Dismiss CAL Herbicide dry bulk fertilizer with an accurately calibrated dry fertilizer spreader. The Dismiss CAL Herbicide dry bulk fertilizer mixture must be spread uniformly on the soil surface. Uneven spreading leaving untreated areas can cause poor weed control or overlapping areas with potential increased Dismiss CAL Herbicide use rates could result in possible crop response.

A minimum of 200 pounds of dry bulk fertilizer impregnated with the recommended amount of Dismiss CAL Herbicide must be applied per acre to achieve adequate soil coverage for satisfactory weed control.

DO NOT impregnate Dismiss CAL Herbicide onto coated ammonium nitrate or limestone because these materials will not absorb the herbicide.

Refer to the appropriate crop section of the Dismiss CAL Herbicide label to determine the rate of Dismiss CAL Herbicide to be applied per acre. Use the following table to determine the amount of Dismiss CAL Herbicide to be impregnated on a ton (2000 pounds) of dry bulk fertilizer based on the rate of fertilizer that will be applied per acre.

For those rates not listed in the following table, calculate the amount of Dismiss CAL Herbicide to be impregnated on a ton of dry bulk fertilizer using the following formula:

$$\frac{2000}{\text{Pounds dry fertilizer per acre}} \times \text{Dismiss CAL use rate in fluid ounces per acre} = \text{ounces of Dismiss CAL to be applied per ton of fertilizer}$$

RATE CHART FOR IMPREGNATION OF DRY BULK FERTILIZERS WITH Dismiss CAL Herbicide
Table 2

	Ounces Dismiss CAL Herbicide per ton of fertilizer		
	Dismiss CAL Herbicide Use Rate Per Acre		
Dry Fertilizer Rate (lb/acre)	8.0 Fluid Ounces per Acre	10.1 Fluid Ounces per Acre	12.0 Fluid Ounces per Acre
200	80	101	120
250	64	80.8	96
300	53.3	67.3	80
350	45.7	57.7	68.6
400	40	50.5	60
450	35.6	44.9	53.3

Application with Liquid Fertilizer (11.42)

Dismiss CAL Herbicide may be applied using liquid fertilizer solutions as the carrier. The fertilizer solutions may either be concentrate formulations as blended or diluted with water. When applied as directed with adequate soil coverage, Dismiss CAL Herbicide applied with liquid fertilizer mixtures will provide satisfactory weed control. However, adequate soil coverage is essential to achieve acceptable levels of weed control.

Herbicide mixing, solution stability and/or compatibility problems can occur when liquid fertilizers are used as a carrier. Compatibility tests must be conducted prior to mixing to insure tank mixture compatibility and stability. The use of compatibility agents may be beneficial to achieve and maintain a homogenous solution.

Mixing Instructions for Liquid Fertilizer Applicati (11.43)
Fill the clean spray tank to one half of the total volu with the fertilizer solution. Start the spray tank agitat ystem. Prepare a slurry of Dismiss CAL Herbicide in a clean container with clean water using equal volumes of Dismiss CAL Herbicide and clean water. Slowly add the Dismiss CAL Herbicide /water slurry to the spray tank. Carefully rinse the slurry container, adding the rinsate to the spray tank. Better mixing of the Dismiss CAL Herbicide /water slurry may be achieved if the slurry is added using induction systems on the sprayer fill plumbing system.

Complete filling the spray tank to the desired level. Sufficient and continuous spray tank agitation is required at all times to maintain a homogenous spray solution. The spray system must be designed such that there is sufficient flow capacity to uniformly apply the spray mixture and maintain adequate tank agitation. Some systems may require separate pumps to simultaneously supply the spray system and the spray tank agitation system. Insure the Dismiss CAL Herbicide slurry is thoroughly mixed before application.

For tank mixtures with other herbicide(s), a compatibility test must be conducted to insure product compatibility before mixing. Read and follow all the directions, precautions and restrictions of the tank mixture products prior to mixing.

Apply the Dismiss CAL Herbicide spray mixture immediately after mixing. Do not store the sprayer overnight or for any extended period of time with the Dismiss CAL Herbicide spray mixture remaining in the tank.

Do not premix Dismiss CAL Herbicide spray solutions in nurse tanks.

Follow all Dismiss CAL Herbicide label directions regarding product use rates per acre, registered crops, application instructions, incorporation directions, special instructions and all precautions.

All individual state regulations relating to liquid fertilizer blending, storage, transportation, registration, labeling, and application are the responsibility of the individual and/or company preparing, selling or applying the Dismiss CAL Herbicide and fertilizer mixture.

SPRAY DRIFT REDUCTION ADVISORY (12.0)

To avoid drift, do not apply when wind speeds exceed 10 mph. Do not exceed spray pressures of 40 psi unless specified by the manufacturer of drift reducing spray tips and nozzles.

Spray Drift Management (12.1)
AVOIDING SPRAY DRIFT AT THE APPLICATION SITE IS THE RESPONSIBILITY OF THE APPLICATOR AND THE GROWER.

The interaction of many equipment and weather related factors determine the potential for spray drift. The applicator and the grower are responsible for considering all these factors when making decisions.

The following drift management requirements must be followed to avoid off-target movement from aerial applications. These requirements do not apply to forestry applications, public health uses or to applications of dry materials.

1. The distance of the outermost nozzles on the boom must not exceed ¾ the length of the wingspan or rotor.
2. Nozzles must always point backward parallel with the air stream and never be pointed downwards more than 45 degrees.
3. Observe the regulations of the State where applications are made.
4. Applicators must observe and abide by the requirements of the Aerial Drift Reduction Advisory.

Information on Droplet Size
The most effective way to reduce drift potential is to apply large droplets. The best drift management strategy is to apply the largest droplets that provide sufficient coverage for pesticide performance. Applying larger droplets reduces drift potential but will not prevent drift if applications are made improperly or under unfavorable environmental conditions. (See information on Wind, Temperature and Humidity, and Temperature Inversions in subsequent sections).

Controlling Spray Droplet Size (12.3)
Volume – Use high flow rate nozzles to apply the greatest practical spray volume. Nozzles with higher rated flow generally produce larger droplets.

Pressure - When higher flow rates are needed, use higher flow rate nozzles rather than increasing spray pressure.

Do not exceed the nozzle manufacturer's recommended pressures. Lower pressure produces larger droplets in many types of nozzles.

Number of Nozzles – Use the minimum number of nozzles that provide uniform coverage.

Nozzle Orientation – For aerial application, the recommended practice is to orient nozzles so that the spray is released parallel to the airstream. This orientation usually produces larger droplets as compared to other nozzle orientations. Significant nozzle deflection from horizontal will reduce droplet size and increase drift potential.

Nozzle Type - Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low drift nozzles for both ground and aerial applications. Solid stream nozzles oriented straight back usually produce the largest droplets and the lowest drift potential in aerial applications

Boom Length – For some aerial use patterns, reducing the effective boom length to less than ¾ of the wingspan or rotor length may further reduce drift without reducing swath width.

Application Height - Aerial applications should not be made at a height greater than 10 feet above the top of the target plant canopy unless a greater height is required for aircraft safety. Making applications at the lowest height that is safe reduces exposure of droplets to evaporation and wind.

Swath Adjustment – When aerial applications are made with a crosswind, the swath will be displaced downwind. Therefore, on the upwind and downwind edges of the field, the applicator must compensate for this displacement by the path of the aircraft upwind. Swath adjustment or offset distance should increase when conditions favor increased drift potential (higher winds, smaller droplets, etc).

Wind – Drift potential is lowest between wind speeds of 3-10 mph. However, many factors, including droplet size and equipment type determine drift potential at any given wind speed. Application should be avoided below 3 mph due to variable wind direction and high inversion potential. NOTE: Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they may potentially affect spray drift .

Temperature and Humidity – When making applications in low relative humidity, set up equipment to produce larger droplets to compensate for evaporation. Droplet evaporation is most severe when conditions are both hot and dry.

Temperature Inversions – Applications should not occur during a temperature inversion because drift potential is high. Temperature inversions restrict vertical air mixing, which causes small-suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions due to the low speed and variable winds common during inversions. Temperature inversions are characterized by increasing temperatures with altitude and are common during conditions of limited cloud cover and little to no wind. They often begin to form as the sun sets and may often continue into the morning. The presence of a temperature inversion may be indicated by ground fog. However if fog is not present, the movement of smoke from a ground source or an aircraft smoke generator can also identify inversions. Smoke that remains in layers and moves laterally in a concentrated cloud (under low speed wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.

Sensitive Areas – The pesticide should only be applied when the wind is blowing away from sensitive areas (e.g. residential areas, bodies of water, known habitat for threatened or endangered species, non-target crops).

Off-Target Movement of Dismiss CAL Herbicide
Drift of dilute spray mixtures containing Dismiss CAL Herbicide must be prevented. Observation of the preceding environmental conditions, correct application equipment design, calibration and application practices will significantly diminish the risk of off-target spray drift. Dismiss CAL Herbicide can cause significant symptomology by drift on to sensitive crops and other plants. This symptomology may manifest initially as discreet, localized spots where contacted by Dismiss CAL Herbicide drift mixtures. Depending on concentration of the spray solution and droplets size (effectively determining the dosage of sulfentrazone) and also depending on the inherent sensitivity of the plants involved, these spots or lesions may or may not coalesce. These effects will usually not have lasting effects on plant growth, but will likely reduce the value of affected fruit or foliage where grade or quality is associated with appearance. In severe drift instances with particularly sensitive crops, defoliation of affected foliage could result. Failure to follow these

guidelines and environmental prohibitions that the[re] sult in off-target movement or drift of Dismiss CAL[ ]bicide on to unintended crops or plants, irrespective of severity, constitutes misapplication [ ]s product. FMC accepts no responsibility or liability[ ]otential crop effects that may result from such misapplication of Dismiss CAL Herbicide.

MAXIMUM ALLOWABLE DISMISS CAL HERBICIDE USE PER ACRE PER 12 MONTH PERIOD* (13.0)

Refer to the crop section of this label for specific product use directions.

Table 3

Crop	Ounces Dismiss CAL Herbicide Per Acre	Pound Active Sulfentrazone Per Acre
Row Crops		
Corn	12.0	0.375
Fallow	8.0	0.25
Peanuts	9.6	0.30
Potatoes	8.0	0.25
Soybeans	12.0	0.375
Sugarcane	12.0	0.375
Sunflowers	8.0	0.25
Tobacco	8.0	0.375
Vegetable Crops		
Asparagus	12.0	0.375
Cabbage	12.0	0.375
Dry Beans & Peas	8.0	0.25
Horseradish	8.0	0.25
Oil Crops		
Mint	12.0	0.375

*The total allowed usage per twelve-month period includes all applications made to the field per twelve-month interval. This includes fallow treatments, burndown treatments, planting time and all in-season treatments. The twelve-month period is considered to begin upon the initial Dismiss CAL Herbicide application.

CROP ROTATIONAL RESTRICTIONS (14.0)

The following Table 4 shows the minimum interval in months from the time of the last Dismiss CAL Herbicide application until Dismiss CAL Herbicide treated soil can be replanted to the crops listed. When Dismiss CAL Herbicide is tank mixed with another herbicide, refer to the partner label for recropping instructions, following the directions that are most restrictive.

For all other crops not listed below, the rotational interval is a minimum of 12 months. Some crops have rotational intervals greater than 12 months after a Dismiss CAL Herbicide application due to potential crop injury. A representative bioassay of the field shall be completed with the rotational crop to accurately determine the planned crop's sensitivity to sulfentrazone.

CROP ROTATIONAL RESTRICTIONS**

Table 4

Crop	Interval (Months)
Asparagus	Anytime
Barley	4
Cabbage	Anytime
Canola	24
Cereal Grains (Buckwheat, Oats, Pearl Millet, Proso Millet, Teosinte, Wild Rice)	12
Corn, Field	10
Corn, Pop	18
Corn, Sweet	18
Cotton	18
Dry Shell Peas and Beans	Anytime
Horseradish	Anytime
Limas	Anytime
Mint	Anytime
Peanuts	Anytime
Potatoes	Anytime
Rice	10
Rye	4
Sorghum	10 *
Soybeans	Anytime
Sugar Beets	36
Sugarcane	Anytime
Sunflowers	Anytime
Sweet Potatoes	12
Triticale	4
Tobacco	Anytime
Turf	Anytime
Wheat	4

*Sorghum – 18-month rotation for rates above 8.0 oz/acre
**For all other crops not listed, the rotation interval is a minimum of 12 months.

BAND TREATMENT APPLICATIONS (15.0)

For band treatments, apply the broadcast equivalent rate and volume per acre. To determine these:

Band Width Inches / Row Width Inches	X	Broadcast Rate Per Acre	=	Band Rate
Band Width Inches / Row Width Inches	X	Broadcast Volume Per Acre	=	Band Volume

MIXING AND LOADING INSTRUCTIONS (16.0)

Dismiss CAL Herbicide may be applied alone, or in tank mixtures with other herbicides for the control of additional weed species. Mixtures with some other pesticides have not been tested. Conduct appropriate compatibility tests prior to tank mixing with other pesticides. Follow all precautions and restrictions on the tank mix partner label.

It is important that spray equipment is clean and free of existing pesticide residues before preparing Dismiss CAL Herbicide spray mixtures. Follow the spray tank clean out procedures specified on the label of the product or products previously applied.

For best results fill spray tank with one half of the volume of clean water needed for the field to be treated. Start agitation system. Prepare a slurry of Dismiss CAL Herbicide in a clean container using clean water. Slowly add the Dismiss CAL Herbicide /water slurry to the spray tank. Carefully rinse the slurry container, adding the rinsate to the spray tank. Complete filling the spray tank to the desired level. Continuous spray tank agitation is required at all times to maintain a uniform spray solution.

Make sure Dismiss CAL Herbicide is thoroughly mixed before application or before adding another product to the spray tank.

Use the Dismiss CAL Herbicide spray mixture immediately after mixing. Do not store the sprayer overnight or for any extended period of time with the Dismiss CAL Herbicide spray mixture remaining in the tank.

Do not premix Dismiss CAL Herbicide spray solutions in nurse tanks.

If Dismiss CAL Herbicide is tank mixed with other herbicides, all additional directions, restrictions and precautions for the tank mixture herbicides must be followed.

SPRAYER EQUIPMENT CLEAN-OUT (17.0)

As soon as possible after spraying Dismiss CAL Herbicide and before using sprayer equipment for any other applications, the sprayer must be thoroughly cleaned to avoid potential crop affects using the following procedure. Residues left in mixing equipment, spray tanks, hoses, spray booms and nozzles can cause crop effects if they are not properly cleaned. In addition, users must take appropriate steps to ensure proper equipment clean-out for any other products mixed with Dismiss CAL Herbicide as required on the other product labels. More complete cleaning can be achieved if the spray system is cleaned immediately following the application.

1. Drain sprayer tank, hoses, spray boom and spray nozzles. Use a high-pressure detergent wash to remove physical sediment and residues from the inside of the sprayer tank and thoroughly rinse. Then, thoroughly flush sprayer hoses, spray boom and spray nozzles with a clean water rinse. Remove and clean spray tips and all filters and screens (tank, spray hose and spray tips) separately in the ammonia solution of Step 2.

2. Next, prepare a sprayer cleaning solution by adding three gallons of ammonia (containing at least 3% active) per 100 gallons of clean water. Prepare sufficient cleaning solution to allow the operation of the spray system for a minimum of 15 minutes to thoroughly flush hoses, spray boom and spray nozzles.

3. Convenient and thorough cleaning of the sprayer can be achieved if the ammonia solution or fresh water is left in the spray tank, hoses, spray booms and spray nozzles overnight or during storage.

4. Before using the sprayer, completely drain the sprayer system. Rinse the tank with clean water and flush through the hoses, spray boom, and spray nozzles with clean water. Remove and clean spray tips and all filters and screens (tank, spray hose and spray tip) separately in an ammonia solution.

5. Properly dispose of all cleaning solution and rinsate in accordance with Federal, State, and local regulations and guidelines.

Do not apply sprayer cleaning solutions or rinsate to sensitive crops.

Do not store the sprayer overnight or for any extended period of time with Dismiss CAL Herbicide spray solution remaining in the tank, spray lines, spray boom plumbing, spray nozzles or strainers.

If the sprayer has been stored or idle, purge the spray boom and nozzles with clean water before beginning any application.

Should small quantities of Dismiss CAL Herbicide remain in inadequately cleaned mixing, loading and/or spray equipment, they may be released during subsequent applications potentially causing effects to certain crops and other vegetation. FMC accepts no liability for any effects due to inadequately cleaned equipment.

Do not drain of flush equipment on or near desirable trees or plants.

Do not contaminate any body of water including irrigation water that may be used on other crops.

WEEDS LIST (18.0)

When Dismiss CAL Herbicide is applied in accordance with the General Application information and the specific crop use directions, Dismiss CAL Herbicide applied alone or in recommended tank mixtures will provide control of the following weeds. Refer to the specific crop section.

Table 5

Scientific Name	Scientific Name
Amaranth, livid	*Amaranthus lividus*
Amaranth, Palmer	*Amaranthus palmeri*
Amaranth, Powell	*Amaranthus Powell II*
Amaranth, spiny	*Amaranthus spinosus*
Amaranth, spleen	*Amaranthus dubius*
Anoda, spurred	*Anoda cristata*
Bedstraw, catchweed	*Galium aparine*
Carpetweed	*Mollugo verticillata*
Chickweed, common	*Stellaria media*
Copperleaf, hophornbeam	*Acalypha ostryeafolia*
Copperleaf, Virginia	*Acalypha virginica*
Crabgrass, large	*Digitaria sanguinalis*

Crabgrass, smooth	*Digitaria isch[illegible]um*
Crabgrass, Southern	*Digitaria ciliaris*
Croton, tropic	*Croton glandulosus*
Crownbeard, golden	*Verbesina encelioides*
Cupgrass, wooly	*Erichloa villosa*
Cyperus, hedgehog	*Cyperus compressus*
Daisy, American	*Eclipta alba*
Devilsclaw	*Proboscidea louisiana*
Dock, curly	*Rumex crispus*
Eclipta	*Eclipta prostrata*
Filaree, redstem	*Erodium cicutarium*
Flixweed	*Descurainia sophia*
Galinsoga, hairy	*Galinsoga ciliata*
Goosegrass	*Eleusine indica*
Groundcherry, clammy (seedling)	*Physalis heterophylla*
Groundcherry, cutleaf	*Physalis angulata*
Jimsonweed	*Datura stramonium*
Kochia (ALS and Triazine Resistant)	*Kochia scoparia*
Ladysthumb	*Polygonum persicaria*
Lambsquarters, common	*Chenopodium album*
Lettuce, miners	*Montia perfoliata*
Mallow, common	*Malva neglecta wall r.*
Mayweed, Chamomile	*Anthemis cotula l.*
Milkweed, honeyvine	*Ampelamus albidus*
Morningglory, entireleaf	*Ipomoea hederacea integriuscula*
Morningglory, ivyleaf	*Ipomoea hederacea hederacea*
Morningglory, palmleaf	*Ipomoea wrightii*
Morningglory, purple	*Ipomoea turbinata*
Morningglory, red	*Ipomoea, coccinea L.*
Morningglory, scarlet	*Ipomoea coccinea*
Morningglory, smallflower	*Jacquemontia tamnifolia*
Morningglory, tall	*Ipomoea, purpurea*
Mustard, tumble	*Sisybrium altissimum*
Nightshade, black	*Solanum nigrum*
Nightshade, Eastern black	*Solanum ptycanthum*
Nutsedge, purple	*Cyperus rotundus*
Nutsedge, yellow	*Cyperus esculentus*
Orchardgrass	*Dactylis glomerata*
Panicum, fall	*Panicum dichotomiflorum*
Pigweed, redroot	*Amaranthus retroflexus*
Pigweed, smooth	*Amaranthus hybridus*
Plantain, blackseed	*Plantago rugelii decne*
Plantain, narrow-leaved	*Plantago lanceolata*
Poorjoe	*Diodia teres*
Porophyllum	*Porophyllum rederale*
Poinsettia, wild	*Euphorbia heterophylla*
Purslane, common	*Portulaca oleracea*
Redmaids	*Calandrinia ciliata*
Redweed	*Melochia corchorifolia*
Sedge, annual	*Carex spp.*
Senna, coffee	*Cassia occidentalis*
Sheperdspurse	*Capsella bursa-pastoris*
Sida, prickly	*Sida spinosa*
Sida, Southern	*Sida acuta*
Signalgrass, broadleaf	*Brachiaria platyphylla*
Smartweed, PA (seedling)	*Polygonum pensylvanicum*
Smellmellon	*Cucumis melo*
Starbur, bristly	*Acanthospermum hispidum*
Stinkgrass	*Eragrostis cilianensis*
Toadflax, yellow	*Linaria vulgaris*
Tassleflower, red	*Emilio sonchifolia*
Thistle, Russian	*Salsola kali*
Waterhemp, common	*Amaranthus rudis*
Waterhemp, tall	*Amaranthus tuberculatos*
Waterprimrose, winged	*Ludwigia decurrens*
Witchgrass	*Panicum capillare*

REPLANTING INSTRUCTIONS (20.0)

If initial planting of labeled crops fails to produce a stand, only labeled crops for Dismiss CAL Herbicide or the tank mix partner; whichever is most restrictive, may be planted. Do not retreat field with Dismiss CAL Herbicide or other herbicide containing sulfentrazone. Do not plant treated fields with any crop at intervals that are inconsistent with the Rotational Crop Guidelines on this label. When replanting use minimum soil tillage to preserve the herbicide barrier and achieve maximum weed control.

ROW CROPS

CORN (Field Corn, Seed Corn, Popcorn) (For Use Only with GMO Varieties Tolerant to PPO Herbicides) (20.0)

Table 6

Dismiss CAL Use Rate Table (Corn) Fall, Spring Early Preplant, Preemergence, and Preplant Incorporated Applications			
Broadcast Rate	**Fluid Ounces Dismiss CAL per acre**		
	Soil Texture		
% Organic Matter	**Coarse**	**Medium**	**Fine**
<1.5	3.0 – 4.5	3.0 – 4.5	3.75 – 5.25
1.5-3.0	3.0 – 4.5	3.75 – 6.0	4.5 – 6.75
>3	3.75 – 6.0	4.5 – 6.75	6.0 – 8.0
Refer to the previous information on soil types under the COARSE, MEDIUM, and FINE categories Use higher rates for soils of pH less than 7.0 and lower rates for pH greater than 7.0 within the rate range.			

Preplant (Fall Applications) (20.1)
Dismiss CAL Herbicide may be applied in the fall as a preplant treatment prior to corn planting the following spring.

Dismiss CAL Herbicide can be used alone or in a tank mixture with other herbicides to control susceptible broadleaves, sedges and grasses in corn. Apply Dismiss CAL in conventional tillage or conservation tillage (reduced tillage or no-tillage) cropping systems using rates recommended in the Table 6. Dismiss CAL Herbicide should be applied to the stubble or soil surface and allow moisture from rainfall or snow to move the product into the soil. Do not mechanically incorporate in the fall or spring as this operation can destroy the herbicide barrier allowing weed escapes to occur. Do not apply to frozen soils or existing snow cover to prevent Dismiss CAL Herbicide runoff from rain or snowmelt that may occur following application. Dismiss CAL Herbicide may be tankmixed with other burndown herbicides to control emerged weeds in the fall or residual soil herbicides that are labeled for fall use on corn. Select the correct Dismiss CAL Herbicide use rate for corn from the Table 6 for your soil type and organic matter. Due to the extended period of time between the fall application and corn planting, the use rate of Dismiss CAL Herbicide should be the mid to high rate within the rate range for the appropriate soil type and organic matter.

Early Preplant and Preemergence (Spring Applications) (20.2)
Dismiss CAL Herbicide may be applied preplant on the soil surface in the spring to control weeds in conventional and conservation tillage systems. Dismiss CAL Herbicide can be applied from 45 days prior to planting until 3 days after planting as a preemergence broadcast or banded soil application if corn seedlings have not broken the soil surface and if the seed furrow is completely closed. For preemergence applications 14 to 45 days prior to planting, use the mid to high rate in the appropriate rate range for the soil and organic matter type listed in Table 6. Dismiss CAL Herbicide can be tank mixed with other herbicides labeled for use in corn. To control insect pests such as cutworm or armyworm that may be present, Dismiss CAL Herbicide may be tankmixed with insecticides including Mustang Max or Capture 2EC. If dry conditions persist following preemergence application of Dismiss CAL Herbicide, a shallow incorporation may be needed to activate the herbicide. If weeds are emerged at the time of Dismiss CAL Herbicide application, use a burndown herbicide in conjunction with Dismiss CAL as needed. When planting into soil treated preplant with Dismiss CAL Herbicide, minimize soil disturbance to maintain the herbicide barrier on the soil surface to achieve maximum weed control. Observe all precautions, instructions, and rotational cropping guidelines of each product's label when tank mixing, including all references to potential carryover and crop injury warnings or restrictions.

Preplant Incorporated (20.3)
Dismiss CAL Herbicide may be applied as a Preplant Incorporated treatment in the spring prior to planting in reduced and conventional tillage corn. Dismiss CAL Herbicide should be shallowly incorporated or mixed thoroughly into the soil to a maximum depth of 2 inches using a correctly adjusted implement such as a field cultivator, field finisher or disk harrow. Incorporating Dismiss CAL Herbicide deeper than 2 inches may result in inconsistent weed control. Use the appropriate rate from Table 6 for the soil texture, organic matter, and pH level of the soil. Dismiss CAL Herbicide can be tankmixed with other soil-applied herbicides and insecticides labeled for preplant incorporation in corn. Observe all precautions, instructions, and rotational cropping guidelines of each product's label when tank mixing, including all references to potential carryover and crop injury warnings or restrictions.

Dismiss CAL Herbicide may be applied more than once to the same crop in split or sequential applications to provide season-long control of difficult-to-control existing or late emerging weeds.

Precautions
These Crop Specific Use directions are based upon the interactive effects of Dismiss CAL Herbicide (sulfentrazone) and the primary soil and environmental factors, which affect its activity on various weed species and tolerance among crops. The user is required to observe the instructions and guidance previously presented under General Application Instructions, General Dismiss CAL Herbicide Product Use Rates, Rotational Crop Guidelines, Replanting Instructions, Weed Controlled and any other section of this label pertinent to the anticipated crop use. It is important to note that not all varieties or cultivars of a given crop species have been evaluated under treatment with Dismiss CAL Herbicide. Consult university or extension weed management specialists for additional information on specific local varieties or cultivars and any other pertinent information on Dismiss CAL Herbicide under specific local conditions.

Restrictions
Do not apply more than 12.0 fluid ounces (0.375 pound active) per twelve-month period. The twelve-month period is considered to begin upon the initial Dismiss CAL Herbicide application.

Do not use on soils classified as sand, which have less than 1% organic matter.

Do not apply to frozen soils or existing snow cover to prevent Dismiss CAL Herbicide runoff from rain or snowmelt that may occur following application.

FALLOW OR POST HARVEST BURNDOWN (21.0)

Dismiss CAL Herbicide may be applied in the fall following crop harvest or in existing fallow fields of asparagus, cabbage, corn, dry shell peas and beans, horseradish, limas, mint, peanuts, potatoes, soybeans, sugarcane, sunflowers and tobacco.

Table 7

Dismiss CAL Herbicide Use Rate Table (Fallow or Post Harvest Burndown) Fall and Spring Fallow Applications			
Broadcast Rate	**Fluid Ounces Dismiss CAL Herbicide per acre**		
	Soil Texture		
% Organic Matter	**Coarse**	**Medium**	**Fine**
<1.5	3.0 – 3.75	3.0 – 4.5	3.75 – 5.25
1.5-3.0	3.75 – 5.25	3.75 – 6.0	4.5 – 6.75
>3	4.5 – 6.0	4.5 – 8.0	5.25 – 8.0
Refer to the previous information on soil types under the COARSE, MEDIUM, and FINE categories Use higher rates for soils of pH less than 7.0 and lower rates for pH greater than 7.0 within the rate range.			

Fall Application (21.1)
Dismiss CAL Herbicide may be applied in the fall following crop harvest or in existing fallow fields to control or suppress weeds the following season. The Dismiss CAL Herbicide Rotational Crop Guidelines in Table 4 must be followed if crops are planted the next season. Dismiss CAL Herbicide should be applied to the harvested crop stubble or soil surface without incorporation. Moisture in the form of rain or snow will move and activate the product. Do not mechanically incorporate in the fall or spring after application because this activity may destroy the herbicide barrier and weed escapes can occur. Do not apply to frozen soils to prevent Dismiss CAL Herbicide runoff from rain or snow that may occur following application. Dismiss CAL Herbicide may be tankmixed with herbicides to control emerged weeds. Sequential applications may be needed depending on weed size. In situations where weed size may interfere with Dismiss CAL Herbicide reaching the soil surface, a separate burndown application prior to the application of Dismiss CAL Herbicide will be required. Use full, recommended rates of burndown herbicides in combination with Dismiss CAL Herbicide, or sequential applications as needed. Higher aerial spray volumes are required when there is a dense weed population or canopy.

Dismiss CAL Herbicide can be tankmixed with other herbicides. Observe all precautions, instructions, and rotational cropping guidelines of each product's label when tank mixing, including all references to potential carryover and crop injury warnings or restrictions.

Spring Preemerge Application (21.2)
Dismiss CAL Herbicide may be applied as a fallow treatment early in the spring provided the application is made prior to weed emergence, and adequate moisture is available to activate the Dismiss CAL Herbicide. Follow the same use rate recommendations and application guidelines listed under the Fall Application section above.

Weeds Controlled
When applied according to directions, Dismiss CAL Herbicide will provide control of:

Filaree, redstem	Pigweed, redroot
Kochia (ALS and Triazine Resistant)	Pigweed, smooth
Lambsquarters, common	Thistle, Russian
Morningglory, ivyleaf	Waterhemp, common
Morningglory, tall	Waterhemp, tall
Nightshade, Eastern Black	

For information on other weeds not listed above, refer to Weeds Controlled section (Table 5) of this label.

Precautions
These Crop Specific Use directions are based upon the interactive effects of Dismiss CAL Herbicide (sulfentrazone) and the primary soil and environmental factors, which affect its activity on various weed species and tolerance among crops. The user is required to observe the instructions and guidance previously presented under General Application Instructions, General Dismiss CAL Herbicide Product Use Rates, Rotational Crop Guidelines, Replanting Instructions, Weed Controlled and any other section of this label pertinent to the anticipated crop use. It is important to note that not all varieties or cultivars of a given crop species have been evaluated under treatment with Dismiss CAL Herbicide. Consult university or extension weed management specialists for additional information on specific local varieties or cultivars and any other pertinent information on Dismiss CAL Herbicide under specific local conditions.

Use Restrictions
Do not apply more than 8.0 fluid ounces (0.25 lb active) per twelve-month period. The twelve-month period is considered to begin upon the initial Dismiss CAL Herbicide application.

Do not use on soils classified as sand, which have less than 1% organic matter.

Do not apply to frozen soils or existing snow cover to prevent Dismiss CAL Herbicide runoff from rain or snowmelt that may occur following application.

PEANUTS (22.0)

Apply Dismiss CAL Herbicide alone or in combination with other registered herbicides for the control of key grass and broadleaf weeds in peanut production. Refer to the information below for specific use directions.

Application Instructions
Dismiss CAL Herbicide may be preplant incorporated (to a depth no greater than 2 inches) up to 14 days prior to planting. Alternatively, Dismiss CAL Herbicide may be applied to the soil surface at planting, or within 12 hours after planting. Incorporation of Dismiss CAL Herbicide deeper than 2 inches can result in adverse crop response and/or inconsistent weed control. Do not use Dismiss CAL Herbicide for "at-crack" type applications or apply to exposed peanut tissue. Such use can result in significant adverse crop response. For optimum performance, a combination of Dismiss CAL Herbicide plus a grass herbicide labeled for peanuts is recommended. Under conditions of exceptionally high weed populations or when weeds not controlled by Dismiss CAL Herbicide are anticipated, the use of suitable post-emergent peanut herbicides is recommended. Broadcast apply the correct Dismiss CAL Herbicide use rate from Table 8 below, in a minimum of 10 gallons of water per acre of finished spray. Banded Dismiss CAL Herbicide application rates must be adjusted in proportion to the broadcast rate.

Dismiss CAL Herbicide Use Rates and Weeds Controlled in Coarse Soils[1]

Table 8
When applied, as directed, at 4.8 fluid ounces (0.15 pound active ingredient) per acre, Dismiss CAL Herbicide will provide:
Control of the listed weeds.

Amaranth, spleen	Jimsonweed
Copperleaf, hophornbeam	Lambsquarters, common
Croton, tropic	Morningglory, entireleaf

Crownbeard, golden	Morningglory, re
Devilsclaw	

When applied, as directed, at 6.4 fluid ounces (0.2 pound active ingredient) per acre, Dismiss CAL Herbicide will provide: Control of the listed weeds.

All the weeds controlled at 4.8 fl. ozs. plus:	
Amaranthus, Palmer	Morningglory, smallflower
Crabgrass, large	Poinsettia, wild [2]
Crabgrass, Southern	Redweed
Eclipta	Senna, coffee
Goosegrass	Signalgrass, broadleaf
Morningglory, pitted	Smartweed, PA (seedling)

When applied, as directed, at 8.0 fluid ounces (0.25 pound active ingredient) per acre, Dismiss CAL Herbicide will provide: Control of the listed weeds.

All the weeds controlled at 6.4 fl. ozs. plus:	
Anoda, spurred	Purslane, common
Cocklebur, common	Sida, prickly
Nutsedge, yellow	Starbur, prickly
Nutsedge, purple [3]	

[1]Use rates are Dismiss CAL Herbicide fluid ounces per acre. Specified weeds are controlled in coarse (sand and loamy sand) soils. Medium and fine soils (sandy loam, clay loam, clay) or soils with organic matter greater than 1.0% should use the next higher rate in Table 8 above. The next higher rate for 8.0 fluid ounces (0.25 lb ai) should not exceed 9.6 fluid ounces (0.3 lb ai) per acre.

[2] Controls initial and several continuing flushes (germinations) of wild poinsettia.

[3] Purple nutsedge activity is based on preplant incorporated applications of Dismiss CAL Herbicide. Pre-emergence surface applications may provide control (>85%) under certain circumstances. Otherwise, purple nutsedge will be partially controlled (71 to 84%).

In soils with pH greater than 7, use the next lower Dismiss CAL Herbicide application rate. Irrigation with alkaline (pH 8 to 9) water can result in adverse crop response. The extent of crop response is dependent on Dismiss CAL Herbicide application rate, soil type (including %OM and pH), timing (after Dismiss CAL application relative to crop emergence), amount and pH of irrigation water. Do not irrigate with water greater than pH 9.

After peanuts are established (4" to 6" across in size), the alkalinity of irrigation water has minimal impact on crop growth.

For information on other weeds not listed above, refer to Weed Controlled section (Table 5) in this label.

Precautions

These Crop Specific Use directions are based upon the interactive effects of Dismiss CAL Herbicide (sulfentrazone) and the primary soil and environmental factors, which affect its activity on various weed species and tolerance among crops. The user is required to observe the instructions and guidance previously presented under General Application Instructions, General Dismiss CAL Herbicide Product Use Rates, Rotational Crop Guidelines, Replanting Instructions, Weed Controlled and any other section of this label pertinent to the anticipated crop use. It is important to note that not all varieties or cultivars of a given crop species have been evaluated under treatment with Dismiss CAL Herbicide. Consult university or extension weed management specialists for additional information on specific local varieties or cultivars and any other pertinent information on Dismiss CAL Herbicide under specific local conditions.

Restrictions

Do not apply more than 9.6 fluid ounces (0.3 lb ai) of Dismiss CAL Herbicide per acre per twelve-month period. The twelve-month period is considered to begin upon the initial Dismiss CAL application.

Do not feed treated peanut forage or peanut hay to livestock.

Do not use on soils classified as sand, which have less than 1% organic matter.

Do not irrigate with water having a pH higher than 9.

Do not apply at cracking time.

POTATOES (23.0)

Table 9

Dismiss CAL Herbicide Use Rate Table (Potatoes) Preemergence Application			
Broadcast Rate	**Fluid Ounces Dismiss CAL per acre**		
	Soil Texture		
% Organic Matter	**Coarse**	**Medium**	**Fine**
<1.5	3.0 – 4.5	3.0 – 4.5	3.75 – 5.25
1.5-3.0	3.0 – 4.5	3.75 – 6.0	4.5 – 6.0
>3	4.5 – 6.0	5.25 – 6.75	6.0 – 8.0
*Refer to the previous information on soil types under the COARSE, MEDIUM, and FINE categories Use higher rates for soils of pH less than 7.0 and lower rates for pH greater than 7.0 within the rate range.			

Ground and Aerial Applications (23.1)

Apply Dismiss CAL Herbicide by aerial application as a preemergence treatment following planting and after dragoff, but prior to potato emergence. Optimum performance can be achieved if Dismiss CAL Herbicide is applied to the soil surface and either rainfall or overhead irrigation is used to activate the product. If no moisture is received within 7 days following application in areas without irrigation, a shallow incorporation (less than 2 inches) may be needed prior to weed and potato emergence to activate the product. Select the appropriate use rate based on soil texture and organic matter as shown in Table 9 above. For control of emerged weeds at the time of the Dismiss CAL application, an appropriate burndown herbicide and adjuvants labeled for potatoes may be tankmixed with Dismiss CAL to control these weeds. Do not apply Dismiss CAL Herbicide if the potatoes have emerged from the soil as undesirable crop response may occur. Dismiss CAL Herbicide may be tankmixed with other soil-applied herbicides labeled for use in potatoes to improve weed management and increase weed control spectrum.

Apply Dismiss CAL Herbicide in a minimum of 10 gallons of spray by ground application and 5 gallons of spray by air.

Chemigation Applications (23.2)

Dismiss CAL Herbicide may be applied to potatoes through sprinkler irrigation systems including center pivot, lateral move, end tow, solid set or hand move irrigation systems. Apply Dismiss CAL Herbicide prior to potato emergence using sufficient water (0.25 to 0.5 inch per acre) to provide thorough soil surface coverage, but to avoid runoff of irrigation water. Dismiss CAL Herbicide may be applied with other products labeled for chemigation use in potatoes.

It is important to note that irrigation with highly alkaline water (high pH) following a Dismiss CAL Herbicide application may significantly increase the amount of sulfentrazone available in soil solution. Irrigation with water having a pH greater than 7.5 could result in an adverse crop response. This response will ultimately depend on initial Dismiss CAL Herbicide application rate, application timing, amount and pH of irrigation water; the sensitivity of the crop and the crop growth stage when irrigated. The risk of adverse crop response will lessen with advances in the crop growth stage.

Weeds Controlled
When applied according to directions, Dismiss CAL Herbicide will provide control of:

Amaranth, Palmer	Nightshade, Eastern black
Filaree, redstem	Pigweed, redroot
Kochia (ALS and Triazine Resistant)	Pigweed, smooth
Lambsquarters, common	Thistle, Russian
Morningglory, ivyleaf	Waterhemp, common
Morningglory, tall	Waterhemp, tall

For information on other weeds not listed above, refer to Weed Controlled section (Table 5) in this label.

Precautions
Potato varieties may vary in their response to herbicide applications. When using Dismiss CAL Herbicide on an untested variety, always determine the crop tolerance before planting. Some potato varieties, including Sangre, Shepody and Snowden, have shown sensitivity to Dismiss CAL Herbicide. Caution should be used when planting these varieties on marginal coarse soils.

These Crop Specific Use directions are based upon the interactive effects of Dismiss CAL Herbicide (sulfentrazone) and the primary soil and environmental factors, which affect its activity on various weed species and tolerance among crops. The user is required to observe the instructions and guidance previously presented under General Application Instructions, General Dismiss CAL Herbicide Product Use Rates, Rotational Crop Guidelines, Replanting Instructions, Weed Controlled and any other section of this label pertinent to the anticipated crop use. It is important to note that not all varieties or cultivars of a given crop species have been evaluated under treatment with Dismiss CAL Herbicide. Consult university or extension weed management specialists for additional information on specific local varieties or cultivars and any other pertinent information on Dismiss CAL Herbicide under specific local conditions.

Restrictions
Do not use on soils classified as sand, which have less than 1% organic matter.

Do not apply Dismiss CAL Herbicide after potato emergence from the soil as undesirable crop response may occur.

Do not apply more than 8.0 fluid ounces (0.25 pound active) per acre per twelve-month period. The twelve-month period is considered to begin upon the initial Dismiss CAL application.

SOYBEANS (24.0)

Table 10

Dismiss CAL Herbicide Use Rate Table (Soybeans)
Fall, Spring Early Preplant, Preemergence, and Preplant Incorporated Applications

Broadcast Rate	Fluid Ounces Dismiss CAL Herbicide per acre		
	Soil Texture		
% Organic Matter	Coarse	Medium	Fine
<1.5	4.5 – 6.0	6.0 – 8.0	8.0
1.5-3	6.0 – 8.0	8.0 – 10.1	10.1
>3	8.0 – 10.1	10.1 – 12.0	12.0
Refer to the previous information on soil types under the COARSE, MEDIUM, and FINE categories Use higher rates for soils of pH less than 7.0 and lower rates for pH greater than 7.0 within the rate range.			

Ground and Aerial Applications (24.1)
Apply Dismiss CAL Herbicide in conventional tillage, conservation tillage, reduced tillage or no-tillage cropping systems using rates recommended in the Dismiss CAL Herbicide Use Rate Table 10. Dismiss CAL Herbicide may be applied with ground or aerial sprayers calibrated to deliver a minimum of 10 gallons of finished spray by ground application and 5 gallons of finished spray by air. Use nozzle types and arrangements that will provide optimum coverage while producing a minimal amount of fine droplets. Apply sufficient spray volume to achieve adequate coverage.

Preplant Incorporated and Preemergence Applications (24.2)
Dismiss CAL Herbicide can be applied prior to planting or up to 3 days after planting. When applications after planting are delayed greater than 3 days after planting, injury may occur if seeds are germinating. Dismiss CAL Herbicide may be applied preemergence or preplant incorporated. For preplant incorporated applications, incorporation must be uniform and no deeper than 2 inches. Improper soil incorporation may result in erratic weed control and/or crop injury. Dismiss CAL Herbicide applied near or after crop emergence may cause severe injury to the crop. Dismiss CAL Herbicide can be applied alone or in combination with other labeled soybean herbicides. Dismiss CAL Herbicide may be followed by labeled postemergence soybean herbicides for increased control of grass and broadleaf weeds. Always follow the most restrictive label when tank mixing. When using Dismiss CAL Herbicide in no-till or minimum till cropping systems, tank mix with an appropriate burndown herbicide for improved control of existing weeds.

Fall Applications (24.3)
Dismiss CAL Herbicide may be applied as a fall treatment to the stubble of harvested crops for the burndown of existing vegetation and preemergence control of labeled weeds the following spring in no-till and conservation tillage production systems. Fall applications of Dismiss CAL Herbicide must be made in weed control programs that include, as needed, spring applications of preplant, preemergence or postemergence herbicides for the following crop season. Dismiss CAL Herbicide can be applied to the stubble of a harvested crop in no-till or to the soil surface of conservation tillage fields after harvest when the sustained soil temperature is 55 degrees F and falling at a soil depth of 4 inches. Apply after September 30 in those areas North of Interstate 90 and after October 15 in those areas North of Interstate 70. Do not apply Dismiss CAL Herbicide as a fall treatment South of Interstate 70. Applications to ridge till production systems must be made after the formation of ridges or bedded.

If weeds are emerged at the time of application, utilize a tank mixture with a suitable burndown herbicide at labeled rates. Fall applied burndown treatments should be made with a minimum of 20 gallons per acre to achieve adequate coverage of the weeds being treated. When making burndown applications to emerged weeds, the addition of adjuvants such as COC or MSO to the spray mixture can be used to enhance the burndown activity of the application.

Weeds Controlled
When Applied according to directions, Dismiss CAL Herbicide will provide control of:

Amaranth, Palmer	Nightshade
Copperleaf, hophornbeam	Pigweed, s
Kochia (ALS and Triazine Resistant)	Sida, prickly
Lambsquarters, common	Thistle, Russian
Morningglory, spp.	Waterhemp, spp.

For information on other weeds not listed above, refer to Weed Controlled section (Table 5) in this label.

Precautions
When applying Dismiss CAL Herbicide with other registered herbicides, refer to specific label information on precautions, instructions, limitations, application methods and timings, and weeds controlled.

Dismiss CAL Herbicide is especially effective against a wide range of economic broadleaf and grass weeds. The same processes that sulfentrazone affects in these weeds can, under certain conditions, be affected in soybeans. These conditions include high pH (7.5 and above), cool weather, prolonged and excessive moisture, seedling diseases, and any other condition, including poor agronomic practices, that are unfavorable to vigorous crop growth. Such effects in soybeans are often observed as stunting and discoloration. The duration of these effects are somewhat dependent on the duration of the adverse growing conditions. These effects lessen and generally diminish with the return to normal growing conditions.

These Crop Specific Use directions are based upon the interactive effects of Dismiss CAL Herbicide (sulfentrazone) and the primary soil and environmental factors, which affect its activity on various weed species and tolerance among crops. The user is required to observe the instructions and guidance previously presented under General Application Instructions, General Dismiss CAL Herbicide Product Use Rates, Rotational Crop Guidelines, Replanting Instructions, Weed Controlled and any other section of this label pertinent to the anticipated crop use. It is important to note that not all varieties or cultivars of a given crop species have been evaluated under treatment with Dismiss CAL Herbicide. Consult university or extension weed management specialists for additional information on specific local varieties or cultivars and any other pertinent information on Dismiss CAL Herbicide under specific local conditions.

Restrictions
Do not apply more than 12.0 fluid ounces (0.375 lbs active) per acre of Dismiss CAL Herbicide per twelve-month period. The twelve-month period is considered to begin upon the initial Dismiss CAL Herbicide application.

Do not use on soils classified as sand, which have less than 1% organic matter.

Do not apply to frozen soils or existing snow cover to prevent Dismiss CAL Herbicide runoff from rain or snowmelt that may occur following application.

Do not apply after crop seed germination.

SUGARCANE (25.0)

Table 11

Dismiss CAL Herbicide Use Rate Table (Sugarcane)
Planting Time and Lay-by Applications

Broadcast Rate	Fluid Ounces Dismiss CAL Herbicide per acre		
	Soil Texture		
% Organic Matter	Coarse	Medium	Fine
<1.5	4.5 – 6.0	6.0 – 8.0	8.0
1.5-3	6.0 – 8.3	8.0 – 10.1	10.1
>3	8.0 – 10.1	10.1 – 12.0	12.0
Refer to the previous information on soil types under the COARSE, MEDIUM, and FINE categories Use higher rates for soils of pH less than 7.0 and lower rates for pH greater than 7.0 within the rate range.			

Apply Dismiss CAL Herbicide as a broadcast or banded preemerge soil applied treatment for the control of broadleaf weeds, grasses and sedges in sugarcane. Refer to the Dismiss CAL Herbicide Product Use Rate Section and Table 11 for specific use information.

Planting Time Applications (25.1)
Apply Dismiss CAL Herbicide preemerge to newly planted or ratoon sugarcane. Use the higher rate on clay soils and/or soils with organic matter content higher than 2 percent. Apply either by air in a minimum of 5 gallons of spray per acre or by ground equipment in a minimum of 15 gallons of spray per acre. Dismiss CAL Herbicide may be applied with other herbicides registered for use in sugarcane.

Aerial Applications (25.2)
Dismiss CAL Herbicide may be applied by air in a minimum of 5 gallons of finished spray per acre. Dismiss CAL Herbicide may be applied with other herbicides or insecticides registered for aerial application in sugarcane.

Lay-by Applications (25.3)
Apply Dismiss CAL Herbicide as a directed spray to sugarcane at lay-by timing. Use the higher rate on clay soils and/or soils with organic matter content higher than 2 percent. Apply as a directed spray with ground equipment in a minimum of 15 gallons of spray per acre. Dismiss CAL Herbicide may be applied with other herbicides registered for use in sugarcane.

Weeds Controlled
When applied according to directions, Dismiss CAL Herbicide will provide control of:

Morningglory, entireleaf	Morningglory, tall
Morningglory, ivyleaf	Pigweed, red root
Morningglory, red	Nutsedge, yellow

For information on other weeds not listed above, refer to Weed Controlled section (Table 5) in this label.

Precautions
These Crop Specific Use directions are based upon the interactive effects of Dismiss CAL Herbicide (sulfentrazone) and the primary soil and environmental factors, which affect its activity on various weed species and tolerance among crops. The user is required to observe the instructions and guidance previously presented under General Application Instructions, General Dismiss CAL Herbicide Product Use Rates, Rotational Crop Guidelines, Replanting Instructions, Weed Controlled and any other section of this label pertinent to the anticipated crop use. It is important to note that not all varieties or cultivars of a given crop species have been evaluated under treatment with Dismiss CAL Herbicide. Consult university or extension weed management specialists for additional information on specific local varieties or cultivars and any other pertinent information on Dismiss CAL Herbicide under specific local conditions.

Restrictions
Do not apply within 120 days of harvest.

Do not use on soils classified as sand, which have less than 1% organic matter.

Do not allow spray to contact crop leaves.

Do not apply more than 12.0 fluid ounces (0.375 lbs active) per acre of Dismiss CAL Herbicide per acre per twelve-month period. The twelve-month period is considered to begin upon the initial Dismiss CAL Herbicide application.

SUNFLOWERS (26.0)

Table 12

Dismiss CAL Herbicide Use Rate Table (Sunflowers) Fall, Early Spring Preplant, Preemergence, and Preplant Incorporated Applications			
Broadcast Rate	**Fluid Ounces Dismiss CAL Herbicide per acre**		
	Soil Texture		
% Organic Matter	**Coarse**	**Medium**	**Fine**
<1.5	3.0 - 3.75	3.0 – 4.5	3.75 – 5.25
1.5-3.0	3.0 – 4.5	3.75 – 6.0	4.5 – 6.75
>3	3.75 – 6.0	4.5 – 6.75	6.0 – 8.0
Refer to the previous information on soil types under the COARSE, MEDIUM, and FINE categories Use higher rates for soils of pH less than 7.0 and lower rates for pH greater than 7.0 within the rate range.			

Fall Applications (26.1)
Dismiss CAL Herbicide may be applied in the fall as a preplant treatment to control or suppress weeds prior to planting sunflowers the following spring. Dismiss CAL Herbicide should be applied to the stubble or soil surface and allow moisture from rainfall or snow to move the product into the soil. Do not mechanically incorporate in the fall or spring as this can destroy the herbicide barrier and allowing weed escapes to occur. Do not apply to frozen soils or to existing snow cover to prevent Dismiss CAL Herbicide runoff from rain or snow melt that may occur following application. Dismiss CAL Herbicide may be tank mixed with other residual soil herbicides that are labeled for fall use on sunflowers. If weeds are emerged at the time of Dismiss CAL Herbicide application, use a burndown herbicide such as glyphosate or paraquat at the full-labeled rate in combination with Dismiss CAL Herbicide or split application as needed. Select the appropriate rate from Table 12 above within the correct soil type and organic matter range. When applying Dismiss CAL Herbicide in the fall, use a mid to high rate within the rate range for the appropriate soil type and organic matter.

Early Preplant and Preemergence (Spring Applications) (26.2)
Dismiss CAL Herbicide may be applied preplant on the soil surface in the spring to control weeds in sunflowers. Dismiss CAL Herbicide can be applied early preplant prior to planting up to 3 days after planting as a preemerge soil application if seedlings have not broken the soil surface and if the seed furrow is completely closed. For preemerge applications greater than 3 weeks prior to planting, use the high rate within the appropriate rate range for the soil and organic matter type listed in the use rate chart above (Table 12). Dismiss CAL Herbicide can be tank mixed with other preemerge herbicides labeled for sunflower use. If dry conditions persist following preemerge application of Dismiss CAL Herbicide, a shallow incorporation may be needed to incorporate and activate the herbicide. If weeds are emerged at the time of Dismiss CAL Herbicide application, use a burndown herbicide at the full-labeled rate in combination with Dismiss CAL Herbicide or split application as needed.

Preplant Incorporated (PPI) (26.3)
Dismiss CAL Herbicide may be applied as a Preplant Incorporated treatment in the spring prior to planting in reduced and conventional tillage sunflowers. Dismiss CAL Herbicide should be shallowly incorporated in the soil no deeper than 2 inches. Incorporating Dismiss CAL Herbicide deeper than 2 inches can result in inconsistent weed control. Use the appropriate rate from Table 9 above for the soil texture, organic matter, and pH level. Dismiss CAL Herbicide can be tankmixed with other soil-applied herbicides labeled for preplant incorporation in sunflowers.

Weeds Controlled
When applied according to directions, Dismiss CAL Herbicide will provide control of:

Amaranth, Palmer	Pigweed, red root
Filaree, redstem	Pigweed, smooth
Kochia (ALS and Triazine Resistant)	Sida, prickly
Lambsquarters, common	Thistle, Russian
Morningglory, ivyleaf	Waterhemp, common
Morningglory, tall	Waterhemp, tall
Nightshade, Eastern black	

For information on other weeds not listed above, refer to Weed Controlled section (Table 5) in this label.

Precautions
When applying Dismiss CAL Herbicide to coarse textured soils, it is recommended that growers allow a minimum of 7-14 days from application to planting. Best results are achieved with Dismiss CAL Herbicide when applications are made early preplant and greater than 14 days before planting.

Some adverse crop response may occur on coarse textured soils with low organic matter (less than 1.5%) and pH of 7.8 or higher, or on highly eroded soils, or in areas of calcareous outcroppings. Dismiss CAL Herbicide use rates should be reduced in those areas. Inadequate seed furrow closure or shallow planting (less than 1.0 inch) may result in undesirable crop response. As expected, poor growing conditions such as excessive moisture, low temperatures, soil compaction and diseases may also cause undesirable crop response.

These Crop Specific Use directions are based upon the interactive effects of Dismiss CAL Herbicide (sulfentrazone) and the primary soil and environmental factors, which affect its activity on various weed species and tolerance among crops. The user is required to observe the instructions and guidance previously presented under General Application Instructions, General Dismiss CAL Herbicide Product Use Rates, Rotational Crop Guidelines, Replanting Instructions, Weed Controlled and any other section of this label pertinent to the anticipated crop use. It is important to note that not all varieties or cultivars of a given crop species have been evaluated under treatment with Dismiss CAL Herbicide. Consult university or extension weed management specialists for additional information on specific local varieties or cultivars and any other pertinent information on Dismiss CAL Herbicide under specific local conditions.

Restrictions
Do not apply more than 8.0 fluid ounces (0.25 pound active) of Dismiss CAL Herbicide per twelve-month period to sunflowers. The twelve-month period is considered to begin upon the initial Dismiss CAL Herbicide application.

Do not apply to frozen soils or existing snow cover to prevent Dismiss CAL Herbicide runoff from rain or snowmelt that may occur following application.

Do not use on soils classified as sand, which have less than 1% organic matter.
Do not incorporate greater than 2 inches deep.

TOBACCO (Burley, Flue-Cured and Dark) (27.0)

Table 13

Dismiss CAL Herbicide Use Rate Table (Tobacco) Preemergence and Preplant Incorporated Applications			
Broadcast Rate	**Fluid Ounces Dismiss CAL per acre**		
	Soil Texture		
% Organic Matter	**Coarse**	**Medium**	**Fine**
<1.5	4.5 – 6.0	6.0 – 8.0	8.0
1.5-3	6.0 – 8.0	8.0 – 10.1	10.1
>3	8.0 – 10.1	10.1 – 12.0	12.0
Refer to the previous information on soil types under the COARSE, MEDIUM, and FINE categories Use higher rates for soils of pH less than 7.0 and lower rates for pH greater than 7.0 within the rate range.			

Dismiss CAL Herbicide may be surface applied or preplant incorporated (to a depth no greater than 2 inches) from 14 days to 12 hours days prior to transplanting tobacco. Incorporating Dismiss CAL Herbicide deeper than 2 inches can result in inconsistent weed control.

Broadcast apply the appropriate Dismiss CAL Herbicide rate from Table 14 above, in a minimum of 10 gallons per acre of water, to the soil prior to transplanting.

Non-Bedded (Fields where raised beds are NOT formed prior to transplanting) (27.1)
Perform all accepted cultural practices for land preparation, fertilizer/fungicide incorporation, etc. prior to the application of Dismiss CAL Herbicide. Once the field has been prepared for planting, Dismiss CAL Herbicide may be surface applied or lightly preplant incorporated from 14 days to 12 hours prior to transplanting.

If Dismiss CAL Herbicide is surface applied and it is necessary to remove equipment tracks from the field after application but prior to transplanting, any light finishing equipment may be used providing the soil is not disturbed to a depth greater than 2 inches.

If timely cultivations are not performed following a pre-transplant surface application, reduced/unacceptable weed control may occur in the drill.

Bedded (Fields where raised beds ARE formed PRIOR to transplanting) (27.2)
Apply Dismiss CAL Herbicide to formed beds as a surface application from 14 days to 12 hours prior to transplanting. If it is customary to drag/knock down beds prior to transplanting, this procedure must be performed prior to the Dismiss CAL Herbicide application.

When incorporating prior to bedding, Dismiss CAL Herbicide must be thoroughly and uniformly incorporated to a depth no greater than 2 inches to avoid concentrating Dismiss CAL Herbicide in the bed.

If initial transplanting fails to produce a uniform stand, tobacco may be replanted. DO NOT re-treat field with a second application of Dismiss CAL Herbicide, or any other herbicide containing sulfentrazone. DO NOT re-bed. Re-transplant into previously formed, treated beds.

For broad spectrum and optimum grass weed control a grass herbicide application will be required.

Weeds Controlled
When Applied according to directions, Dismiss CAL Herbicide will provide control of:

Amaranthus, livid	Pigweed, redroot
Filaree, redstem	Pigweed, smooth
Galinsoga, hairy	Sida, prickly
Lambsquarters, common	Signalgrass, broadleaf
Morningglory, ivyleaf	Smartweed, Pennsylvania
Morningglory, tall	

For information on other weeds not listed above, refer to Weed Controlled section (Table 5) in this label.

Precautions
Poor agronomic practices, unfavorable pH soils, diseases, cold weather, excessive moisture, drought or other conditions unfavorable to normal plant growth may adversely effect the growth of tobacco transplants. Weakened transplants may be more susceptible to herbicide response and diseases, particularly under poor drainage or compacted soil conditions or when the soil has been saturated for long periods of time. Contact your State Agricultural Extension Service Specialist for consultation as to the agronomic recommendations suited for your tobacco varieties and local conditions. Temporary stunting of tobacco may occur if transplants are set too shallowly, or if heavy rainfall occurs immediately following transplanting. Splashing of treated soil onto tobacco leaves may cause some localized and inconsequential necrosis. Use sound transplanting practices that insure treated soil will not wash or crust over tobacco plants.

These Crop Specific Use directions are based upon the interactive effects of Dismiss CAL (sulfentrazone) and the primary soil and environmental factors, which affect its activity on various weed species and tolerance among crops. The user is required to observe the instructions and guidance previously presented under General Application Instructions, General Dismiss CAL Product Use Rates, Rotational Crop Guidelines, Replanting Instructions, Weed Controlled and any other section of this label pertinent to the anticipated crop use. It is important to note that not all varieties or cultivars of a given crop species have been evaluated under treatment with Dismiss CAL Herbicide. Consult university or extension weed management specialists for additional information on specific local varieties or cultivars and any other pertinent information on Dismiss CAL Herbicide under specific local conditions.

Restrictions
Do not use on Shade Grown Tobacco

Do not apply Dismiss CAL Herbicide to soils classified as sands containing less than 1% organic matter.

Do not use Dismiss CAL Herbicide in tobacco seeding beds or greenhouses.

Do not apply Dismiss CAL Herbicide post-transplant as unacceptable injury may occur.

Do not perform tillage practices that concentrate Dismiss CAL Herbicide into the bed or crop injury may occur.

Do not apply more than 12.0 fluid ounces (0.375 lbs active) per acre of Dismiss CAL Herbicide per acre per twelve-month period. The twelve-month period is considered to begin upon the initial Dismiss CAL application.

Do not incorporate greater than 2 inches deep.

VEGETABLE CROPS

Before applying Dismiss CAL Herbicide to vegetable crops, users, producers, and/or applicators must read and follow the information presented in the Conditions of Sale and Limitation of Warranty and Liability section on page 3 of this label.

ASPARAGUS (28.0)

Table 14

Dismiss CAL Herbicide Use Rate Table (Asparagus) Spring Preemergence Applications	
Broadcast Rate	**Fluid Ounces Dismiss CAL Herbicide per acre**
	Soil Texture

% Organic Matter	Coarse	Medium	Fine
<1.5	4.5 – 6.0	6.0 – 8.0	8.0
1.5-3	6.0 – 8.0	8.0 – 10.1	10.1
>3.0	8.0 – 10.1	10.1 – 12.0	12.0
Refer to the use rate information on soil types under the COARSE, MEDIUM, and FINE categories. Use higher rates for soils of pH less than 7.0 and lower rates for pH greater than 7.0 within the rate range.			

Apply Dismiss CAL Herbicide as a broadcast treatment to crowns established for one or more years.

Apply in the spring before the crop and weeds emerge. Dismiss CAL Herbicide should be applied at 4.5 to 12 fluid ounces (0.141 to 0.375 pound active) per acre in 10 to 40 gallons of finished spray per acre. Dismiss CAL Herbicide may be applied with other pesticides registered for use with asparagus.

Weeds Controlled
When Applied according to directions, Dismiss CAL Herbicide will provide control of :

Amaranth, Palmer	Nightshade, Eastern black
Galinsoga, hairy	Nutsedge, yellow
Lambsquarters, common	Pigweed, redroot
Morningglory, ivyleaf	Pigweed, smooth

For information on other weeds not listed above, refer to Weed Controlled section (Table 5) in this label.

Precautions
These Crop Specific Use directions are based upon the interactive effects of Dismiss CAL Herbicide (sulfentrazone) and the primary soil and environmental factors, which affect its activity on various weed species and tolerance among crops. The user is required to observe the instructions and guidance previously presented under General Application Instructions, General Dismiss CAL Herbicide Product Use Rates, Rotational Crop Guidelines, Replanting Instructions, Weed Controlled and any other section of this label pertinent to the anticipated crop use. It is important to note that not all varieties or cultivars of a given crop species have been evaluated under treatment with Dismiss CAL Herbicide. Consult university or extension weed management specialists for additional information on specific local varieties or cultivars and any other pertinent information on Dismiss CAL Herbicide under specific local conditions.

Restrictions
Do not apply within 14 days prior to harvest.

Do not apply more than 12.0 fluid ounces (0.375 pound active) per acre per 12-month period.

Do not make more than one Dismiss CAL Herbicide application per acre per 12-month period. The twelve-month period is considered to begin upon the initial Dismiss CAL Herbicide application.

Do not use on soils classified as sand, which have less than 1% organic matter.

CABBAGE (Transplanted Only) (29.0)

Table 15

Dismiss CAL Herbicide Use Rate Table (Cabbage) Fall or Spring Early Preplant, Preemergence, and Preplant Incorporated Applications			
Broadcast Rate	**Fluid Ounces Dismiss CAL Herbicide per acre**		
	Soil Texture		
% Organic Matter	**Coarse**	**Medium**	**Fine**
<1.5%	2.25 – 3.0	3.0 – 4.5	3.0 – 6.0
1.5-3.0 %	3.0 – 6.0	6.0 – 9.0	6.0 – 9.0
>3.0 %	6.0 – 9.0	6.0 – 12.0	6.0 – 12.0
Refer to the previous information on soil types under the COARSE, MEDIUM, and FINE categories. Use higher rates for soils of pH less than 7.0 and lower rates for pH greater than 7.0 within the rate range.			

Early Preplant (Fall Application or Spring Application) (29.1)
Dismiss CAL Herbicide may be applied in the fall or spring preceding the growing season to control weeds prior to or up to the planting or transplanting of cabbage. Dismiss CAL Herbicide may be applied in the spring from 60 days prior to planting up to planting time. Dismiss CAL Herbicide should be applied to the harvested crop stubble or soil surface without incorporation. Moisture in the form of rain or snow will move and activate the product into the soil. Do not mechanically incorporate in the fall or spring after application as this may destroy the herbicide barrier and weed escapes can occur. Do not apply to frozen soils to prevent Dismiss CAL Herbicide runoff from rain or snow that may occur following application. Dismiss CAL Herbicide may be tankmixed with other burndown herbicides to control emerged weeds in the fall or spring or with residual soil herbicides that are labeled for fall use on cabbage. Use the full, recommended rates of burndown herbicides in combination with Dismiss CAL Herbicide, or split applications as needed. Observe all precautions, instructions, and rotational cropping guidelines of each product's label when tank mixing, including all references to potential carryover and crop injury warnings or restrictions.

Preplant Incorporated (PPI) (29.2)
Dismiss CAL Herbicide may be applied as a preplant incorporated treatment in the spring prior to transplanting of cabbage. Do not incorporate to depths greater than 2 inches. Dismiss CAL Herbicide can be tankmixed with other burndown or soil-applied herbicides labeled for use in cabbage. Use the full, recommended rates of burndown herbicides or split applications as needed. Observe all precautions, instructions and rotational cropping guidelines of each product's label when tank mixing including all references to potential carryover and crop injury warnings or restrictions.

Transplant Cabbage (29.3)
Dismiss CAL Herbicide may be applied pre-emergence as a broadcast or banded treatment to transplanted cabbage only. Applications should be made broadcast or banded treatment prior to transplanting. Dismiss CAL Herbicide may be applied as a banded treatment into the row middles within 72 hours after transplanting.

Weeds Controlled
When Applied according to directions, Dismiss CAL Herbicide will provide control of:

Galinsoga, hairy	Waterhemp, common
Lambsquarters, common	Waterhemp, tall

Pigweed, redroot	

For information on other weeds not listed above, refer to Weed Controlled section (Table 5) in this label.

Precautions
These Crop Specific Use directions are based upon the interactive effects of Dismiss CAL Herbicide (sulfentrazone) and the primary soil and environmental factors, which affect its activity on various weed species and tolerance among crops. The user is required to observe the instructions and guidance previously presented under General Application Instructions, General Dismiss CAL Herbicide Product Use Rates, Rotational Crop Guidelines, Replanting Instructions, Weed Controlled and any other section of this label pertinent to the anticipated crop use. It is important to note that not all varieties or cultivars of a given crop species have been evaluated under treatment with Dismiss CAL Herbicide. Consult university or extension weed management specialists for additional information on specific local varieties or cultivars and any other pertinent information on Dismiss CAL Herbicide under specific local conditions.

Restrictions
Do not apply more than 12 fluid ounces (0.375 pound active) per acre of Dismiss CAL Herbicide per application or per twelve-month period. The twelve-month period is considered to begin upon the initial Dismiss CAL Herbicide application.

Do not use on soils classified as sand, which have less than 1% organic matter.

Do not incorporate to depths greater than 2 inches.

DRY SHELLED BEANS AND PEAS (30.0)

Dried cultivars of bean (*Lupinus*); bean (*Phaseolus*)(includes field bean, kidney bean, lima bean (dry), navy bean, pinto bean, tepary bean); bean (*Vigna*) (includes adzuki bean, blackeyed pea, catjang, cowpea, crowder pea moth bean, lentil, mung bean, rice bean, southern pea, urd bean); broad bean (dry); chickpea; guar; lab lab bean; pea (*Pisum*) (includes field pea) and pigeon pea.

Table 16

Dismiss CAL Use Rate Table (Dry Shelled Beans Peas) Fall or Spring Early Preplant, Preemergence, and Preplant Incorporated Applications			
Broadcast Rate	**Fluid Ounces Dismiss CAL per acre**		
	Soil Texture		
% Organic Matter	**Coarse**	**Medium**	**Fine**
<1.5%	2.25 – 3.0	3.0 – 4.5	3.0 – 4.5
1.5-3.0 %	3.0 – 4.5.0	3.75 – 6.0	4.5 – 6.0
>3.0 %	3.75 – 6.0	4.5 – 6.75	5.25 – 8.0
Refer to the previous information on soil types under the COARSE, MEDIUM, and FINE categories Use higher rates for soils of pH less than 7.0 and lower rates for pH greater than 7.0 within the rate range.			

Early Preplant and Fall Applications (30.1)
Dismiss CAL Herbicide may be applied in the fall as a preplant treatment to control or suppress weeds prior to planting the following spring. Dismiss CAL Herbicide should be applied to the stubble or soil surface and allow moisture from rainfall or snow to move the product into the soil. Do not mechanically incorporate in the fall or spring as this can destroy the herbicide barrier and weed escapes can occur. Do not apply to frozen soils or to existing snow cover to prevent Dismiss CAL Herbicide runoff from rain or snow melt that may occur following application. Dismiss CAL Herbicide may be tank mixed with other residual soil herbicides that are labeled for fall use on dry bean and dry peas. If weeds are emerged at the time of Dismiss CAL Herbicide application, use a burndown Herbicide such as glyphosate or paraquat at the full-labeled rate in combination with Dismiss CAL Herbicide or split application as needed. Select the appropriate rate from Table 16 above within the correct soil type and organic matter range. When applying Dismiss CAL Herbicide in the fall, use a mid to high rate within the rate range for the appropriate soil type and organic matter.

Early Preplant and Preemergence (Spring Applications) (30.2)
Dismiss CAL Herbicide may be applied preplant on the soil surface in the spring to control weeds in dry bean and dry peas. Dismiss CAL Herbicide can be applied early preplant prior to planting up to 3 days after planting as a preemerge soil application if seedlings have not broken the soil surface and if the seed furrow is completely closed. For preemerge applications greater than 3 weeks prior to planting, use the high rate within the appropriate rate range for the soil and organic matter type listed in the use rate chart above Table16. Dismiss CAL Herbicide can be tank mixed with other preemerge herbicides labeled for dry bean and dry peas use. If dry conditions persist following preemerge application of Dismiss CAL Herbicide, a shallow incorporation may be needed to incorporate and activate the herbicide. If weeds are emerged at the time of Dismiss CAL Herbicide application, use a burndown herbicide at the full-labeled rate in combination with Dismiss CAL Herbicide or split application as needed.

Preplant Incorporated (PPI) (30.3)
Dismiss CAL Herbicide may be applied as a Preplant Incorporated treatment in the spring prior to planting in reduced and conventional tillage dry bean and dry pea. Do not incorporate to depths greater than 2 inches. Dismiss CAL Herbicide use rates for PPI applications are similar to those used in preplant and preemergence applications. Dismiss CAL Herbicide can be tankmixed with other burndown or soil-applied herbicides labeled for use in dry bean or dry pea. Use the full, recommended rates of burndown herbicides, or split applications as needed. Observe all precautions, instructions, and rotational cropping guidelines of each product's label when tank mixing, including all references to potential carryover and crop injury warnings or restrictions.

Weeds Controlled
When applied according to directions, Dismiss CAL Herbicide will provide control of:

Amaranth, Palmer	Pigweed, red root
Filaree, redstem	Pigweed, smooth
Kochia (ALS and Triazine Resistant)	Sida, prickly
Lambsquarters, common	Thistle, Russian
Morningglory, ivyleaf	Waterhemp, common
Morningglory, tall	Waterhemp, tall
Nightshade, Eastern black	

For information on other weeds not listed above, refer to Weed Controlled section (Table 5) in this label.

Precautions
When applying Dismiss CAL Herbicide to coarse textured soils, it is recommended that growers allow a minimum of 7-14 days from application to planting. Best results are achieved with Dismiss CAL Herbicide when applications are made early preplant and greater than 14 days before planting. Under extended periods of dry weather, adequate weed control may not be achieved

Some adverse crop response may occur on coarse textured soils with low organic matter (less than 1.5%) and pH of 7.8 or higher, or on highly eroded soils, or in areas of calcareous outcroppings. Dismiss CAL Herbicide use rates should be reduced in those areas. Inadequate seed furrow closure or shallow planting (less than 1.0 inch) may result in undesirable crop response. As expected, poor growing conditions such as excessive moisture, low temperatures, soil compaction and diseases may also cause undesirable crop response.

These Crop Specific Use directions are based upon the interactive effects of Dismiss CAL Herbicide (sulfentrazone) and the primary soil and environmental factors, which affect its activity on various weed species and tolerance among crops. The user is required to observe the instructions and guidance previously presented under General Application Instructions, General Dismiss CAL Herbicide Product Use Rates, Rotational Crop Guidelines, Replanting Instructions, Weed Controlled and any other section of this label pertinent to the anticipated crop use. It is important to note that not all varieties or cultivars of a given crop species have been evaluated under treatment with Dismiss CAL Herbicide. Consult university or extension weed management specialists for additional information on specific local varieties or cultivars and any other pertinent information on Dismiss CAL Herbicide under specific local conditions.

Restrictions
Do not apply more than 8.0 fluid ounces (0.25 pound active) total per twelve-month period. The twelve-month period is considered to begin upon the initial Dismiss CAL application.

Do not apply after crop emerges, or if the seedling is close to the soil surface.

Do not incorporate to depths greater than 2 inches.

Do not apply to frozen soils or to existing snow cover to prevent Dismiss CAL Herbicide runoff from rain or snow melt that may occur following application.

Do not use on soils classified as sand, which have less than 1% organic matter.

Do not use on soils classified as sand, which have less than 1% organic matter.

HORSERADISH (31.0)

Table 17

Dismiss CAL Herbicide Use Rate Table (Horseradish) Fall or Spring Early Preplant, Preemergence, and Preplant Incorporated Applications			
Broadcast Rate	**Fluid Ounces Dismiss CAL Herbicide per acre**		
	Soil Texture		
% Organic Matter	**Coarse**	**Medium**	**Fine**
<1.5%	2.25 – 4.5	3.0 – 4.5	3.0 – 4.5
1.5-3.0 %	4.5 – 6.0	6.0 – 8.0	6.0 – 8.0
>3.0 %	6.0 – 7.5	6.0 – 8.0	6.0 – 8.0
Refer to the previous information on soil types under the COARSE, MEDIUM, and FINE categories Use higher rates for soils of pH less than 7.0 and lower rates for pH greater than 7.0 within the rate range.			

Dismiss CAL Herbicide may be applied as an preplant preemerge or preplant incorporated treatment by ground in a minimum of 15 gallons of finished spray.

Early Preplant (Fall Application or Spring Application) (31.1)
Dismiss CAL Herbicide may be applied in the fall or spring preceding the growing season to control or suppress weeds prior to or up to the planting of horseradish. Dismiss CAL Herbicide may be applied in the spring from 60 days prior to planting up to planting. Dismiss CAL Herbicide should be applied to the harvested crop stubble or soil surface without incorporation. Moisture in the form of rain or snow will move and activate the product into the soil. Do not mechanically incorporate in the fall or spring after application as this may destroy the herbicide barrier and weed escapes may occur. Do not apply to frozen soils to prevent Dismiss CAL Herbicide runoff from rain or snow that may occur following application. Dismiss CAL Herbicide may be tankmixed with other burndown herbicides to control emerged weeds in the fall or spring or with residual soil herbicides that are labeled for use on horseradish. Use full, recommended rates of burndown herbicides in combination with Dismiss CAL Herbicide, or split applications as needed. Observe all precautions, instructions, and rotational cropping guidelines of each product label when tank mixing, including all references to potential carryover and crop injury warnings or restrictions.

Preplant Incorporated (PPI) (31.2)
Dismiss CAL Herbicide may be applied as a preplant incorporated treatment in the spring prior to planting of horseradish. Do not incorporate to depths greater than 2 inches. Dismiss CAL Herbicide can be tankmixed with other burndown or soil-applied herbicides labeled for use on horseradish. Use the full, recommended rates of burndown herbicides or split applications as needed. Observe all precautions, instructions and rotational cropping guidelines of each product's label when tank mixing including all references to potential carryover and crop injury warnings or restrictions.

Pre-Emergence (PRE) (31.3)
Dismiss CAL Herbicide may be applied pre-emergence as a broadcast or banded treatment on horseradish. Applications should be made broadcast prior to planting, broadcast soon after planting but at least 5 days before crop emergence. Dismiss CAL Herbicide may be applied as a banded treatment into the row middles after crop emergence. Use the higher Dismiss CAL Herbicide rates on clay soils and/or soils with greater than 1% organic matter. Dismiss CAL Herbicide may be applied with other pesticides registered for use on horseradish.

Weeds Controlled
When applied according to directions, Dismiss CAL Herbicide will provide control of:

Lambsquarters, common	Pigweed, redroot
Morningglory, ivyleaf	Waterhemp, common
Nutsedge, yellow	Waterhemp, tall

For information on other weeds not listed above, refer to Weed Controlled section (Table 5) in this label.

Precautions
These Crop Specific Use directions are based upon the interactive effects of Dismiss CAL Herbicide (sulfentrazone) and the primary soil and environmental factors, which affect its activity on various weed species and tolerance among crops. The user is required to observe the instructions and guidance previously presented under General Application Instructions, General Dismiss CAL Herbicide Product Use Rates, Rotational Crop Guidelines, Replanting Instructions, Weed Controlled and any other section of this label pertinent to the anticipated crop use. It is important to note that not all varieties or cultivars of a given crop species have been evaluated under treatment with Dismiss CAL Herbicide. Consult university or extension weed management specialists for additional information on specific local varieties or cultivars and any other pertinent information on Dismiss CAL Herbicide under specific local conditions.

Restrictions
Do not apply more than 8.0 fluid ounces (0.25 pound active) per acre of Dismiss CAL Herbicide per application or per twelve-month period. The twelve-month period is considered to begin upon the initial Dismiss CAL Herbicide application.

Do not apply directly on the crop after the crop emerges or if the seedling sprouts are close to the soil surface.

Do not use on soils classified as sand, which have less than 1% organic matter.

Do not incorporate to depths greater than 2 inches.

OIL CROPS

MINT (32.0)

Table 24

Dismiss CAL Herbicide Use Rate Table (Mint) For Dormant and New Planting Applications			
Broadcast Rate	**Fluid Ounces Dismiss CAL Herbicide per acre**		
	Soil Texture		
% Organic Matter	**Coarse**	**Medium**	**Fine**
<1.5%	4.5 – 6.0	6.0 – 8.0	8.0
1.5 - 3.0 %	6.0 – 8.0	8.0 – 10.1	10.1
>3.0 %	8.0 – 10.1	10.1 – 12.0	12.0
Refer to the previous information on soil types under the COARSE, MEDIUM, and FINE categories Use higher rates for soils of pH less than 7.0 and lower rates for pH greater than 7.0 within the rate range.			

Dormant Applications (32.1)
Apply Dismiss CAL Herbicide to established stands of dormant mint after post harvest and/or spring land cultivation has been completed and before emergence of new mint growth.

Split applications of Dismiss CAL Herbicide may be used for preemergence sequential control of winter annuals and summer annuals. Fall applications must be applied after post harvest cultivation has been completed and spring application made after spring cultivation has been completed and before emergence of new mint growth.

Apply Dismiss CAL Herbicide in tank-mixtures with a registered burndown herbicide to control emerged weeds at the time of application. A surfactant is recommended with these tank mixtures to improve control of the emerged weeds.

Dismiss CAL Herbicide may also be applied in tank mixtures with other products registered for use in mint.

New Planting Applications (32.2)
Dismiss CAL Herbicide may be applied to new mint plantings preemergence to the weeds and mint. The rate of application should be reduced approximately twenty five percent of the rate recommended for established plantings for particular soil characteristics. Refer to Dismiss CAL Herbicide Use Rate Table (Table 24) for the appropriate use rate for the soil type and organic matter content. The higher rates in the range are recommended for soils of pH less than 7.0.

Weeds Controlled
When Applied according to directions, Dismiss CAL Herbicide will provide control of:

Amaranth, Powell	Nutsedge, yellow
Bedstraw, catchweed	Pigweed, redroot
Chamomile, mayweed	Sheperdspurse
Kochia (ALS and Triazine Resistant)	Toadflax, yellow
Lambsquarters, common	Thistle, Russian
Morningglory, ivyleaf	Waterhemp, common
Nightshade, Eastern black	Waterhemp, tall

For information on other weeds not listed above, refer to Weed Controlled section (Table 5) in this label.

Precautions
Applications made to mint that has emerged will result in severe injury to exposed plant tissue.

Applications are recommended only to healthy mint fields. Applications to mint under stress from disease, pests and cultural or environmental conditions may result in crop injury.

Moisture in the form of rainfall or overhead irrigation is required after application to activate the herbicide

These Crop Specific Use directions are based upon the interactive effects of Dismiss CAL Herbicide (sulfentrazone) and the primary soil and environmental factors, which affect its activity on various weed species and tolerance among crops. The user is required to observe the instructions and guidance previously presented under General Application Instructions, General Dismiss CAL Herbicide Product Use Rates, Rotational Crop Guidelines, Replanting Instructions, Weed Controlled and any other section of this label pertinent to the anticipated crop use. It is important to note that not all varieties or cultivars of a given crop species have been evaluated under treatment with Dismiss CAL Herbicide. Consult university or extension weed management specialists for additional information on specific local varieties or cultivars and any other pertinent information on Dismiss CAL Herbicide under specific local conditions.

Restrictions
Apply Dismiss CAL Herbicide only to dormant mint or new mint plantings before new growth emerges.

Do not use on soils classified as sand, which have less than 1% organic matter.

Do not apply more than 12 fluid ounces (0.375 pound active) per twelve-month period. The twelve-month period is considered to begin upon the initial Dismiss CAL Herbicide application.

TURF

SOD PRODUCTION (33.0)

Dismiss CAL Herbicide may be applied to established seeded, sodded or sprigged turfgrasses following the second mowing for the control of key grass, sedge and broadleaf weeds. Turf grasses should have developed a good root system, a uniform stand with healthy root systems to fill in the exposed edges prior to application. Sod injury could result from application of this product on sod that is not well established or has been weakened by stresses such as unfavorable weather conditions, diseases, chemical, recent harvesting or mechanical influences.

Turf Grass Tolerance
When applied as directed, the following established turf grasses are tolerant to Dismiss CAL Herbicide at the recommended use rates.

Table 25 Tolerant grasses

Grass Type	**Maximum Use Rate For Single Application**	
Cool Season Grasses **	Fluid Ounces Dismiss CAL Herbicide Per Acre	Pound Active Ingredient Per Acre
Bentgrass, creeping	4	0.125
Fescue, fine * (Festuca rubra) Fescue, tall * (Festuca arundinacea)	4-8	0.125- 0.25

Ryegrass, perennial (Lolium perenne Bluegrass, Kentucky (Poa pratensis) Bluegrass, Rough (Poa trivialis)		
Warm Season Grasses **		
Bahiagrass (Paspalum notatum) Buffalograss (Buchloe dactyloides) Carpetgrass (Axonopus affinis) Centipedegrass (Eremochloa ophuioides) Kikuyugrass (Pennisetum clandestinum) Seashore Paspalum (Paspalum vaginatum) Zoysiagrass (Zoysia japonica) Bermudagrass (Cynadon dactylon) Bermudagrass Hybrids (Cyn Bluegrass, St. Augustinegrass (Stenotaphrum secundatum)	8-12	0.25-0.375

* Applications of Dismiss CAL Herbicide to certain varieties of Chewings Fine Fescue or Tall Fescue may result in undesirable plant response.

** It is important to note that not all varieties or cultivars have been evaluated under treatment with Dismiss CAL Herbicide. Consult university or extension weed management specialists for additional information on specific local varieties or cultivars and any other pertinent information on Dismiss CAL Herbicide under specific local conditions.

Applications to Reseeded, Overseeded or Sprigged Areas
Reseeding, overseeding or sprigging may be done following Dismiss CAL Herbicide applications to turfgrasses. If reseeding, overseeding or sprigging is done within 1 month following a Dismiss CAL Herbicide treatment, the establishment of desirable grasses may be inhibited. Overseeding of bermudagrass with perennial ryegrass may be done two (2) to four (4) weeks following a Dismiss CAL Herbicide application provided slight grass plant response can be tolerated.

Optimum reseeding and overseeding results may be obtained with the use of mechanical or power seeding equipment, and where proper soil cultivation, irrigation and fertilization practices are followed.

Adjuvant use
Good spray coverage is required for optimum control of weeds. Temporary discoloration of some sod species may result from use of surfactant. Use of surfactants is not recommended.

Postemergence Control of Sedges
Dismiss CAL Herbicide may be applied at the rate of four (4) to twelve (12) fluid ounces per acre to established turf grasses for the control or suppression of sedges. Select the correct Dismiss CAL Herbicide use rate from Table 25.

When applied as directed, Dismiss CAL Herbicide will provide control or suppression of the following sedges.
Table 26A

Common Name	Scientific Name
Kyllinga, green	*Kyllinga brevifolia*
Kullinga, false green	*Kyllinga gracillima*
Nutsedge, purple	*Cyperus rotundus*
Nutsedge, yellow	*Cyperus esculentus*
Sedge, cylindrical	*Cyperus retrorsus*
Sedge, globe	*Cyperus globulosus*
Sedge, Surinam	*Cyperus surinamensis*
Sedge, Texas	*Cyperus polystachyos*

Purple nutsedge: For optimum control of purple nutsedge, split applications are recommended below. Apply 4-8 ounces per acre as an initial application followed by a second application when evidence of actively growing purple nutsedge is visible. Do not exceed the maximum rate per acre based on the turf variety as listed in Table 25; tolerant grasses.

Split Application Rates for Optimum Purple Nutsedge Control

Grass Type	First Application (fl. ozs. per acre)	Second Application (fl. ozs. per acre
Cool Season Grasses	2-4 fl. ounces	2-6 fl. ounces
Warm Season Grasses	4-6 fl. ounces	4-6 fl. ounces

Allow 35 days after first application for second application.

Postemergence Control of Grassy Weeds

Dismiss CAL Herbicide will control or suppress specific annual grasses (Table 26 B) when applied at a rate of 4 to 12 fl oz/acre . Apply the highest rate consistent with the rate needed for turfgrass tolerance in Table 25. Rates lower than 12 fl oz/acre will generally control grasses for at least 60 days. Dismiss CAL Herbicide works best if applied when the annual grasses are small (pre tiller stage) and actively growing.

Table 26B

Common Name	Scientific Name
Goosegrass	*Eleusine indica*

Postemergence Control of Broadleaf Weeds
Dismiss CAL Herbicide will control or suppress the weeds listed in the broadleaf chart below when applied alone shortly after weeds have emerged. Dismiss CAL Herbicide may be applied at the rate of four (4) to twelve (12) fluid ounces per acre to established turf grasses for the control or suppression of broadleaf weeds. Select the correct Dismiss CAL Herbicide use rate from Table 25. For optimum results, Spartan applications should be made shortly after weeds have emerged.

Dismiss CAL Herbicide may be tankmixed with other herbicides, insecticides and fungicides registered for use on turfgrasses. Read and follow the label recommendations of the tank mix partner to determine turfgrass specie tolerance, use rates and application requirements. Follow all label restrictions, use directions and precautionary statements before use.

When applied as directed, Dismiss CAL Herbicide will provide control or suppression of the following broadleaf weeds.

Broadleaves	*Scientific Names*
Bittercress	*Cardamine spp.*
Black Medic	*Medicago lupulina*
Buttercup	*Ranunculus spp.*
Carolina geranium	*Geranium carolinianum*
Carpetweed	*Mollugo verticillata*
Chickweed, common	*Stellaria media*
Chickweed, mousear	*Cerastium vulgatum*
Cinquefoil	*Potentilla spp.*
Clover	*Trifolium spp.*
Cudweed	*Gnaphalium spp.*
Dandelion	*Taraxacum officinale*
Dock, curly	*Rumex crispus*
Evening primrose	*Oenothera biennis*
Fiddleneck	*Amsinckia spp.*
Filaree	*Erodium spp.*

Garlic, wild	*Allium vineale*
Goldenrod	*Solidago spp.*
Ground ivy	*Glechema hederacea*
Henbit	*Lamium amplexicaule*
Knotweed, prostrate	*Polygonum aviculare*
Kochia	*Kochia scoparia*
Lambsquarters, common	*Chenopodium album*
Lawn burweed	*Soliva pterosperma*
Lespedeza, common	*Lespedeza striata*
Mallow, common	*Malva neglecta*
Onion, wild	*Allium canadense*
Parsley piert	*Alchemilla arvensis*
Pigweed, redroot	*Amaranthus retroflexus*
Pigweed, tumble	*Amaranthus albus*
Pineapple weed	*Matricaria matricariodes*
Plantain, buckhorn	*Plantago lanceolata*
Puncture weed	*Tribulus terrestris*
Purslane, common	*Portulaca oleracea*
Pusley, Florida	*Richardia scabra*
Redweed	*Melochia corchorifolia*
Rocket, London	*Sisymbrium irio*
Smartweed, PA	*Polygonum pensylvanicum*
Sorrel, red	*Rumex acetosella*
Speedwell	*Veronica spp.*
Spurge, annual	*Euphorbia spp.*
Spurge, prostrate	*Euphorbia humistrata*
Spurge, spotted	*Euphorbia maculata*
Star of Bethlehem	*Ornithogalum umbellatum*
Velvetleaf	*Abutilon theophrasti*
Violet, wild	*Viola pratincola*
Woodsorrel, creeping	*Oxalis corniculata*
Woodsorrel, yellow	*Oxalis stricta*

Precautions
The use of additional surfactants may cause temporary undesirable effects to turfgrasses.

Restrictions
Sod production areas must be established three (3) months prior to the initial treatment of Dismiss CAL Herbicide.

Do not apply Dismiss CAL Herbicide to golf course greens or tees.

Do apply Dismiss CAL Herbicide to turf grasses not listed on this label.

Do not apply with surfactants without on-site evaluations for spray mixture compatibility and physical effects to turf grasses.

Do not graze or feed forage harvested from Dismiss CAL Herbicide treated areas.

Do not apply to landscape ornamental plants or ornamental beds.

Do not harvest sod within three (3) months of Dismiss CAL Herbicide application.

Non-CROP USES (34.0)

For Use in Railroad, Highway, Roadside, Pipeline and Utility Rights-of-Way, Industrial Areas, Fence Rows, and Other Non-crop Sites. Can Also Be Used For Selective Weed Control in Turf Sites Including Residential and Institutional Lawns, Athletic Fields, Commercial Sod Farms, Golf Course Fairways and Roughs.

DIRECTIONS FOR USE (35.0)

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.

Do not apply this product through any type of irrigation system.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your state or tribe, consult the agency responsible for pesticide regulation.

GENERAL INFORMATION (36.0)

Dismiss CAL Herbicide is a selective soil applied herbicide for the control of certain broadleaf weeds, grasses and sedges. When applied according to directions, it will provide control of susceptible species. Dismiss CAL Herbicide is formulated as flowable (suspension concentrate) containing four pounds of the active ingredient sulfentrazone per gallon.

The mode of action of Dismiss CAL Herbicide involves uptake by weed roots and shoots. Observe all instructions, mixing directions, application precautions and other label information of each product when tank mixing with Dismiss CAL Herbicide.

Proper handling instructions: This product may not be mixed or loaded within 50 feet of any wells (including abandoned wells and drainage wells), sink holes, perennial or intermittent streams and rivers, and natural or impounded lakes and reservoirs. This setback does not apply to properly capped or plugged abandoned wells and does not apply to impervious pad or properly diked mixing/loading areas.

Operations that involve mixing, loading, rinsing or washing of this product into or from pesticide handling or application equipment or containers within 50 feet of any well, are prohibited unless conducted on an impervious pad constructed to withstand the weight of the heaviest load that may be positioned on or moved across the pad. Such a pad shall be designed and maintained to contain any product spills or equipment leaks, container or equipment rinse or wash water, and rainwater that may fall on the pad. Surface water shall not be allowed to either flow over or from the pad, which means the pad must be self contained. The pad shall be sloped to facilitate material removal. An unroofed pad shall be of sufficient capacity to contain at a minimum 110% of the capacity of the largest pesticide container or application equipment on the pad. A pad that is covered by a roof of sufficient size to completely exclude precipitation from contact with the pad shall have a minimum containment capacity of 100% of the capacity of the largest pesticide container or application equipment on the pad. Containment capacities as described above shall be maintained at all times. The above specific minimum containment capacities do not apply to vehicles when delivering pesticide shipments to the mixing/loading site. States may have in effect additional requirements regarding wellhead setbacks and operational containment.

Product must be used in a manner which will prevent back siphoning in wells, spills or improper disposal of excess pesticide, spray mixtures or rinsates.

GENERAL APPLICATION INFORMATION (37.0)

Utilize a boomless application system or a boom and nozzle sprayer equipped with the appropriate nozzles, spray tips and screens and adjusted to provide optimum spray distribution and coverage at the appropriate operating pressures. Utilize nozzles and boomless sprayer configurations which

produce minimal amounts of fine spray droplets. Do not exceed 25 psi spray pressure unless otherwise required by the manufacturer of drift reducing nozzles or boomless application systems. Apply a minimum of 10 gallons of finished spray per acre.

Water must be used as the carrier for this product when applied alone, or when tank mixed with other herbicides.

Avoid letting this product sit overnight as settling of product and difficulty of resuspending may occur.

Do not allow spray to drift onto adjacent plants as injury to other plants may occur.

Do not apply to ornamental shrubs and trees, turf grasses or crops.

SPRAY TANK PREPARATION (38.0)

It is important that spray equipment is clean and free of existing pesticide deposits before using this product. Follow the spray tank clean out procedures specified on the label of product previously applied before adding Dismiss CAL Herbicide to the tank.

Mixing Instructions (38.1)

Dismiss CAL Herbicide may be tank mixed with other herbicides for control of additional weed species. Mixtures with some other herbicides have not been tested. Conduct an appropriate compatibility test prior to tank mixing with other products. Follow all precautions and restrictions on the tank mix partner label.

For best results, fill spray tank with one half of the volume of clean water needed for the area to be treated. Start agitation system. Slowly add Dismiss CAL Herbicide to the spray tank. Complete filling the spray tank to the desired level. Continuous spray tank agitation is required at all times to maintain a uniform spray solution. Make sure Dismiss CAL Herbicide is thoroughly mixed before application or before adding another product to the spray tank.

For tank mixtures with other herbicides, a jar test should be conducted to ensure product compatibility before full-scale mixing. Provided the jar test indicates the mixture to be compatible, prepare the tank mixture as follows: Fill the tank one half full with water. With agitator operating, add the recommended amounts of ingredients using the following order: dry granules first, liquid suspensions (flowables) second. Add EC products followed by water soluble products to tank as agitation continues and tank is filled with water. All applicable directions, restrictions and precautions for the tank mixture herbicides must be followed.

Use the Dismiss CAL Herbicide mixture immediately after mixing. Do not store the sprayer overnight or for any extended period of time with the Sulfentrazone spray mixture remaining in the tank. Premixing Dismiss CAL Herbicide spray solutions in nurse tanks is not recommended.

If Dismiss CAL Herbicide is tank-mixed with other herbicides, all additional directions , restrictions and precautions for the tank mixture herbicides must be followed.

SPRAY DRIFT MANAGEMENT (39.0)

Avoiding spray drift at the application site is the responsibility of the applicator. The interaction of many equipment and weather-related factors determine the potential for spray drift. The applicator and the grower are responsible for considering all these factors when making decisions.

The following drift management requirements must be followed to avoid off-target drift movement from aerial applications. These requirements do not apply to forestry applications, public health uses or to applications using dry formulations.

1. The distance of the outer most nozzles on the boom must not exceed ¾ the length of the wingspan or rotor.

2. Nozzles must always point backward and parallel with the air stream and never be pointed downwards more than 45 degrees. Where states have more stringent regulations, they should be observed.

The applicator should be familiar with and take into account the information covered in the Aerial Drift Reduction Advisory Information.

Importance of Droplet Size (39.1)

The most effective way to reduce drift potential is to apply large droplets. The best drift management strategy is to apply the largest droplets that provide sufficient coverage and control. Applying larger droplets reduces drift potential, but will not prevent drift if applications are made improperly, or under unfavorable environmental conditions (see Wind, Temperature and Humidity, and Temperature Inversion section of this label).

Controlling Droplet Size (39.2)

Volume: Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets.

Pressure: Use the lower spray pressures recommended for the nozzle. Higher pressure reduces droplet size and does not improve canopy penetration. When higher flow rates are needed, use higher flow rate nozzles instead of increasing pressure.

Number of nozzles: Use the minimum number of nozzles that provide uniform coverage.

Nozzle Orientation: Orienting nozzles so that the spray is released backwards, parallel to the airstream will produce larger droplets than other orientations. Significant deflection from the horizontal will reduce droplet size and increase drift potential.

Nozzle Type: Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles. Solid stream nozzles oriented straight back produce larger droplets than other nozzle types.

Boom Height: Making applications at the lowest height that produces a uniform spray pattern will reduce exposure of droplets to evaporation and wind.

Boom Length: For some use patterns, reducing the effective boom length to less than ¾ of the wingspan or rotor length may further reduce drift without reducing swath width.

Application Height (by air): Applications should not be made at a height greater than 10 feet above the top of the largest plants unless a greater height is required for aircraft safety. Making applications at the lowest height that is safe reduces exposure of droplets to evaporation and wind.

Swath Adjustment

When applications are made with a crosswind toward sensitive areas, the swath will be displaced downwind. Therefore, on the up and downwind edges of the field, the applicator must compensate for this displacement by adjusting the path of the aircraft upwind. Swath adjustment distance should increase, with increasing drift potential (higher wind, smaller drops, etc.). For ground applications, when applications are made with a crosswind towards sensitive areas, the application should leave a buffer to avoid off-site movement.

Wind

Drift potential is lowest between wind speeds of 2-10 mph. However, many factors, including droplet size and equipment type determine drift potential at any given speed. Application should be avoided below 2 mph due to variable wind direction and high inversion potential

Note: Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they affect drift.

Temperature and Humidity

When making applications in low relative humidity, set up equipment to produce larger droplets to compensate for evaporation. Droplet evaporation is most severe when conditions are both hot and dry.

Temperature Inversions

Applications should not occur during a temperature inversion because drift potential is high. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions due to the light variable winds common during inversions. Temperature inversions are characterized by increasing temperatures with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog; however, if fog is not present, inversions can also be identified by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upwards and rapidly dissipates indicates good vertical air mixing.

Sensitive Areas

The pesticide should only be applied when the potential for drift to adjacent sensitive areas (e.g., residential areas, bodies of water, known habitat for threatened or endangered species, non-target crops) is minimal (e.g, when wind is blowing away from the sensitive areas).

Drift Control Additives

Drift control additives may be used with all spray equipment with the exception of controlled droplet applicators. When a drift control additive is used, read and carefully observe cautionary statements and all other information on the label. It is recommended that additives be certified by the Chemical Producers and Distributors Association (CPDA).

Sprayer Equipment Clean-Out (40.0)

After spraying Dismiss CAL Herbicide and before using sprayer equipment for any other applications, the sprayer must be thoroughly cleaned using the following procedure:

1. Drain sprayer tank, hoses, and spray boom and thoroughly rinse the inside of the sprayer tank with clean water to remove sediment and residues. In addition, thoroughly flush sprayer hoses, boom, and nozzles with clean water.

2. Fill the tank 1/2 full with clean water, and add appropriate detergent or ammonia (follow manufacturer's directions for use). Fill the tank to capacity and operate the sprayer for 15 minutes to flush hoses, boom, and nozzles.

3. Drain the sprayer system. Rinse the tank with clean water and flush through the hoses, boom, and nozzles. Remove and clean spray tips and screens separately.

4. Properly dispose of all cleaning solution and rinsate in accordance with Federal, State and local regulations and guidelines.

Do not drain or flush equipment on or near desirable trees or plants. Do not contaminate any body of water including irrigation water that may be used on other plants.

APPLICATION INSTRUCTIONS (41.0)

Railroad Rights-of-Way (41.1)

Dismiss CAL Herbicide can be used to control many weeds and maintain bare ground on railroad rights-of-way, including railroad yards, railroad crossings and railroad bridge abutments.

Highway, Roadside, Pipeline and Utility Rights-of-Way. (41.2)

Dismiss CAL Herbicide can be used to control many weeds and maintain bare ground in highway, roadside, pipeline and utility rights-of-way, Such areas would include, but are not limited to, guard rails, road shoulders, electric utility substations, pipeline pumping stations, around electric transmission towers, around distribution line poles and in other areas where complete vegetation control is desired.

Industrial Areas, Fence Rows and Other Non-crop Sites (41.3)

Dismiss CAL Herbicide controls weeds and maintains bare ground in industrial areas including production facilities, tank farms, storage areas, parking areas, lumber yards, airports, military installations, along fence rows, and in similar non-crop sites where complete vegetation control is needed.

Method and Rate of Application (41.4)

For residual control of germinating weeds in non-crop land, apply this product as a broadcast treatment at 8 to 12 fluid ounces (0.25 to 0.375 pounds active ingredient) per acre by ground in a minimum of 10 gallons of spray solution per acre. Applications may be made by helicopter on railroad rights-of-way only.

DO NOT apply Dismiss CAL Herbicide to soils classified as sand with less than 1% Organic Matter.

Use labeled rates of burndown herbicides such as glyphosate, glyphosate - trimesium, diquat, 2,4-D, dicamba,etc. as tank mixtures with Dismiss CAL Herbicide. Use recommended adjuvants for the herbicide tank mix partner. For all products used in tank mixes, refer to the specific product labels for all restrictions on tank mixing and observe all label precautions, instructions and rotational cropping restrictions.

Timing

For best results, apply Dismiss CAL Herbicide alone or in combination with other herbicides for residual control of weeds in late summer, fall, or early spring to insure adequate moisture for soil activation.

Weeds Controlled

This product, when applied at 8 to 12 fluid ounces per acre, will control the following weeds in non-cropland areas. Use the higher labeled rates to extend length of control. Use the higher rates on sites with fine soil textures and on sites with more than 2% organic matter.

Weeds Controlled	
Common Name	**Scientific Name**
Beggarweed, Florida	Desmodium tortuosum
Carpetweed	Mollugo verticillata
Chickweed, common	Stellaria media
Copperleaf, Hophornbeam	Acalypha ostryifolia
Crabgrass species	Digitaria spp.
Croton, tropic	Croton glandulosus
Daisy, American	Coreopsis grandiflora
Dayflower, common	Commelina communis
Dayflower, Virginia	Commelina virginica
Dock, curly	Rumex crispus
Fixweed	Descurainia Sophia
Galinsoga, hairy	Galinsoga ciliata
Groundcherry, clammy (seedling)	Physallis heterophylla
Groundcherry, cutleaf	Physalis angulata
Jimsonweed	Datura stramonium
Kochia	Kochia scoparia
ALS/Triazene Resistant Kochia	Kochia scoparia
Lambsquarter, common	Chenopodium album
Lettuce, wild	Lactuca virosa
Mallow, common	Malva neglecta
Milkweed, honeyvine	Ampelamus albidus
Mexicanweed	Caperonia castanifolia
Morningglory species	Ipomoea spp.
Mustard species	Brassica spp.

Nightshade species	Solanum spp.
Nutsedge species	Cyperus spp
Palmer amaranth	Amaranthus palmeri
Pigweed, smooth	Amaranthus hybridus
Pigweed, redroot	Amaranthus retroflexus
Texasweed	Caperonia palustrus
Thistle, Russian	Salsola iberica
Waterhemp, tall	Amaranthus tuberculatus
Waterhemp, common	Amaranthus rudis

Turf Use Instructions (42.0)

General Information (42.1)

Dismiss CAL Herbicide is a selective preemergence and post emergence herbicide which controls annual grasses and broadleaf weeds in established turf areas including, but not limited to, residential and institutional lawns, athletic fields, commercial sod farms, golf course fairways and golf course roughs. To broaden the spectrum for preemergence control or suppression of annual grasses and/or broadleaf weeds, Dismiss CAL Herbicide should be tank mixed with an EPA registered annual grass herbicide. Observe all instructions, mixing directions, application precautions and other label information of each product when tank mixing with Dismiss CAL Herbicide.

Dismiss CAL Herbicide is formulated as a flowable (suspension concentrate) containing 4 lbs of active ingredient per gallon. The mode of action of Dismiss CAL Herbicide involves uptake by both weed roots and shoots. Preemergence application of Dismiss CAL Herbicide requires soil moisture for activation. The amount of soil moisture required for activation following application depends on existing soil moisture, organic matter content and soil texture. The most effective preemergence weed control will be obtained when Dismiss CAL Herbicide is activated by at least 0.5 inches of rainfall or irrigation within 7 days after application and prior to weed seed germination.

Mixing and Application Instructions (42.2)

General handling instructions

This product may not be mixed or loaded within 50 feet of any wells (including abandoned wells and drainage wells), sink holes, perennial or intermittent streams and rivers, and natural or impounded lakes and reservoirs. This setback does not apply to properly capped or plugged abandoned wells and does not apply to impervious pad or properly diked mixing/loading areas.

Operations that involve mixing, loading, rinsing or washing of this product into or from pesticide handling or application equipment or containers within 50 feet of any well, are prohibited unless conducted on an impervious pad constructed to withstand the weight of the heaviest load that may be positioned on or moved across the pad. Such a pad shall be designed and maintained to contain any product spills or equipment leaks, container or equipment rinse or wash water, and rainwater that may fall on the pad. Surface water shall not be allowed to either flow over or from the pad, which means the pad must be self contained. The pad shall be sloped to facilitate material removal. An unroofed pad shall be of sufficient capacity to contain at a minimum 110% of the capacity of the largest pesticide container or application equipment on the pad. A pad that is covered by a roof of sufficient size to completely exclude precipitation from contact with the pad shall have a minimum containment capacity of 100% of the capacity of the largest pesticide container or application equipment on the pad. Containment capacities as described above shall be maintained at all times. The above specific minimum containment capacities do not apply to vehicles when delivering pesticide shipments to the mixing/loading site. States may have in effect additional requirements regarding wellhead setbacks and operational containment.

Product must be used in a manner which will prevent back siphoning in wells, spills or improper disposal of excess pesticide, spray mixtures or rinsates.

SPRAY TANK PREPARATION

It is important that spray equipment is clean and free of existing pesticide deposits before using this product. Follow the spray tank clean out procedures specified on the label of product previously applied before adding Dismiss CAL Herbicide to the tank.

Dismiss CAL Herbicide is a suspension concentrate intended for dilution with water. In certain applications, liquid fertilizer may replace water as diluent.

MIXING WITH WATER

For best results, fill spray tank with one fourth of the volume of clean water needed for the area to be treated. Start the agitation system and add Dismiss CAL Herbicide to the tank. Make sure Dismiss CAL Herbicide is thoroughly mixed before application or before adding another product to the spray tank.

USE OF SURFACTANTS

Temporary discoloration of some turf types may result from use of surfactants or adjuvants with Dismiss CAL Herbicide. High temperatures and high relative humidity may increase the risk of temporary discoloration. Use of surfactants is not recommended.

MIXING WITH LIQUID FERTILIZERS

Utilize local recommendations for sources and rates of fertilizer and refer to mixing directions on the fertilizer labels (e.g. UAN or urea solutions). Determine the compatibility of this product with the desired fluid fertilizer by mixing small proportional quantities in advance (See the "TANK MIXTURES COMPATIBILITY" section below)

TANK MIXTURES COMPATIBILITY

Dismiss CAL Herbicide is believed to be compatible with most herbicides, fungicides, insecticides, growth regulators, liquid fertilizers and spray adjuvants commonly used in turf and ornamental plant management. However, when preparing a new tank mix conduct an appropriate compatibility test by mixing proportional amounts of all spray ingredients in a test vessel (jar) prior to tank mixing with other products. Shake the mixture vigorously and allow it to stand for five to ten minutes. Rapid precipitation of the ingredients and failure to re-suspend when shaken indicates that the mixture is incompatible and should not be applied. Provided the jar test indicates the mixture to be compatible, prepare the tank mixture as follows: Fill the tank one fourth full with water. With the agitator operating, add the recommended amounts of ingredients using the following order: dry granules first, and liquid suspensions (flowables) second. As the agitation continues and the tank is filled with water add EC products third followed by the addition of water soluble products.

Read and observe mixing instructions of all tank mix partners. Also read each product's label for Directions for Use, Precautionary Statements and Restrictions and Limitations. The most restrictive labeling applies in all tank mixtures. No label dosage rate should be exceeded. Tank mixture recommendations are for use only in states where the companion products and application site are registered. In addition, certain states or geographical regions may have established dosage rate limitations. Consult your state Pesticide Control Agency for additional information regarding the maximum use rates.

Use Dismiss CAL Herbicide spray mixture immediately after mixing. Do not store the mixture.

Ground Equipment

Power sprayers: Uniform and accurate spray coverage requires proper calibration and operation of spray equipment. The use of marker dyes or foams can improve application accuracy. Boom sprayers equipped with appropriate flat fan nozzles, tips and screens are ideal for broadcast applications. Power sprayers fitted with spray wand/gun may also be used for broadcast application after careful calibration by the applicator. Power sprayers fitted with spray wand/gun are suitable for spot treatments.

Hand operated sprayers: Backpack and compressi[on] sprayers are appropriate for small turfgrass areas a[nd] spot treatments. Wands fitted with a flat fan nozzle tip should be held stationary at the prope[r] height during application. A side to side or swinging a[rm] motion can result in uneven coverage.

Apply this product in a sufficient volume of carrier solution to provide a uniform spray distribution. Spray volumes of 20 – 175 gallons per acre (0.5 to 4.0 gal/1,000 ft^2) with spray pressures adjusted to 20 – 40 psi are appropriate. Apply the higher spray volumes for dense weed populations.

Sprayer Equipment Clean-Out

After spraying Dismiss CAL Herbicide and before using sprayer equipment for any other applications, the sprayer must be thoroughly cleaned using the following procedure:

1. Drain sprayer tank, hoses, and spray boom and thoroughly rinse the inside of the sprayer tank with clean water to remove sediment and residues. In addition, thoroughly flush sprayer hoses, boom, and nozzles with clean water.

2. Fill the tank 1/2 full with clean water, and add appropriate detergent or ammonia (follow manufacturer's directions for use). Fill the tank to capacity and operate the sprayer for 15 minutes to flush hoses, boom, and nozzles.

3. Drain the sprayer system. Rinse the tank with clean water and flush through the hoses, boom, and nozzles. Remove and clean spray tips and screens separately.

4. Properly dispose of all cleaning solution and rinsate in accordance with Federal, State and local regulations and guidelines.

Do not drain or flush equipment on or near desirable trees or plants. Do not contaminate any body of water including irrigation water that may be used on other plants.

Weed Control in Turfgrasses (42.3)

Use Precautions for Turf Use

Turfgrass Safety

This product may be used on seeded, sodded or sprigged turgrasses that are well established. First application of this product can be made following the second mowing providing the turfgrass has developed into a uniform stand with a good root system. Turfgrass injury could result from application of this product on turfgrass that is not well established or has been weakened by stresses such as unfavorable weather conditions, disease, chemical or mechanical influences.

When applied as directed under the conditions described, the following established turfgrasses are tolerant to Dismiss CAL Herbicide at the recommended use rates in a range from 0.125 to 0.375 lb a.i./acre (4 to 12 fl. oz/acre or 0.092 to 0.275 fl. oz./1,000 sq. ft).

Table 27. Tolerant grasses.

Grass Type*	Maximum Use Rate Single Application		
Cool Season Grasses	lb ai/A	Fluid ounces per 1000 ft^2	Fluid ounces per acre
Bentgrass, creeping *(Agrostis sp.)*	0.125	0.092	4
Bluegrass, Kentucky *(Poa pratensis)* Bluegrass, Rough[2] *(Poa trivialis)* Fescue, fine[1] *(Festuca rubra)* Fescue, tall[1] *(Festuca arundinacea)* Ryegrass, perennial *(Lolium perenne)*	0.125 - .25	0.092 - 0.18	4 - 8
Warm Season Grasses			
Bahiagrass[2] *(Paspalum notatum)* Bermudagrass *(Cynodon dactylon)* & hybrids Buffalograss *(Buchloe dactyloides)* Carpetgrass *(Axonopus affinis)* Centipedegrass *(Eremochloa ophuiroides)* Kikuyugrass *(Pennisetum clandestinum)* Seashore Paspalum (Paspalum vaginatum) St.Augustinegrass *(Stenotaphrum secundatum)*[2] Zoysiagrass *(Zoysia japonica)*[2]	0.25 - 0.375	0.18 – 0.275	8 - 12

1. Use of this product on certain cultivars of Chewings Fescue Fine Fescue or Tall Fescue cultivars may result in undesirable injury.

2. Dismiss CAL Herbicide application may cause temporary discoloration to exposed leaf surfaces on St. Augustinegrass and certain cultivars of zoysiagrass bahiagrass,.or rough bluegrass. Treated turfgrass will recover with new growth. Discolored leaf tissue will be removed with mowing. To reduce potential for discoloration, do not apply Dismiss CAL Herbicide on turfgrass that is weakened by weather, mechanical, chemical, disease or other related stress. Maintain proper cultural practices such as adequate moisture and fertility levels to promote healthy turf growth.

* Dismiss CAL Herbicide has demonstrated tolerance on both cool and warm season turfgrasses. However, not all varieties have been evaluated. Turfgrass managers desiring to treat newly released varieties should first apply Dismiss CAL Herbicide to a small area prior to treatment of larger areas.

Application to reseeded, overseeded or sprigged areas:

Reseeding, overseeding or sprigging of treated areas within one (1) month after application of this product could inhibit the establishment of desirable turfgrasses. Overseeding of bermudagrass with perennial ryegrass at two (2) to four (4) weeks after an application can be done if slight injury to perennial ryegrass can be tolerated.

Best results are obtained for reseeding or overseeding when mechanical or power seeding equipment (slit seeders) are used to give good seed to soil contact and proper soil cultivation, irrigation and fertilization practices are followed.

Sod Production:

This product may be applied to established sod. Allow sod to establish a good root system, a uniform stand and to fill in the exposed edges. It is recommended that sod be established for at least three (3) months before an application of Dismiss CAL Herbicide. Do not apply this product within three (3) months of harvest.

Other Use Precautions:

Do not apply to golf course putting greens or tees.

Do not use on turfgrasses other than those listed on this label.

Do not apply with surfactants unless previous experience has demonstrated combinations with surfactant to be physically compatible and non-injurious to the grass type in question.

Do not graze or feed livestock forage cut from areas treated with Dismiss CAL Herbicide.

Do not apply directly to landscape ornamentals or ornamental beds.
Temporary turfgrass discoloration has been observed when Primo has been either tank-mixed or applied within 7 days of a Dismiss CAL Herbicide application. It is recommended that Primo applications be made 7 days prior to, or after Dismiss CAL Herbicide application to reduce risk of turfgrass discoloration.

PREEMERGENCE CONTROL OF ANNUAL GRASSES AND BROADLEAF WEEDS

Control of Summer Annual Weeds:
Apply Dismiss CAL Herbicide at the application rate for the turf species being managed (4 to 12 fluid ounces/acre or 0.092 to 0.275 fl. oz./1,000 sq. ft.) prior to weed seed germination in early spring. Applications in early spring will control or suppress the following summer annuals:

Black medic	(*Medicago lupulina*)
Common purslane	(*Portulaca oleracea*)
Pigweed, Redroot	(*Amaranthus retroflexus*)
Pigweed, Smooth	(*Amaranthus hybridus*)
Prostrate knotweed	(*Polygonum aviculare*)
Spurge Prostrate spurge Spotted spurge	(*Euphorbia spp.*) (*Euphorbia supina*) (*Euphorbia maculata*)
Barnyardgrass	(*Echninochloa crusgalli*)
Crabgrass, large	(*Digitraria sanguinalis*)
Crabgrass, smooth	(*Digitaria ischaemum*)
Foxtail, green	(*Setaria viridis*)
Foxtail, yellow	(*Setaria glauca*)
Goosegrass	(*Eleusine indica*)

Control of Winter Annual Weeds:
Apply Dismiss CAL Herbicide at the application rate for the turf species being managed (4 to 12 fluid ounces/acre or 0.092 to 0.275 fl. oz./1,000 sq. ft.) in late summer or early fall to control or suppress the following winter annual weeds:

Buttercups	(*Ranunculus spp.*)
Carolina geranium	(*Geranium carolinianum*)
Common chickweed	(*Stellaria media*)
Common groundsel	(*Senecio vulgaris*)
Corn Speedwell	(*Veronica arvensis*)
Hairy bittercress	(*Cardamine hirsuta*)
Henbit	(*Lamium amplexicaule*)
Johnnyjumpup violet	(*Viola rafeinesquii*)
Knawel	(*Scleranthus annuus*)
Large hop clover	(*Trifolium campestre*)
Mouseear chickweed	(*Cerastium vulgatum*)
Parsley-piert	(*Alchemilla microcarpa*)
Spurweed	(Soliva pterosperma)
Annual bluegrass	(*Poa annua*)
Annual ryegrass	(*Lolium multiflorum*)

To broaden the spectrum for preemergence control or suppression of annual grasses and/or broadleaf weeds, Dismiss CAL Herbicide can be tank mixed with an EPA registered annual grass herbicide. Applications in combination with prodiamine, pendimethalin, dithiopyr or oxadiazon will provide broad spectrum control of the weeds listed in Table 28. Read the label recommendations of the tank mix partner to determine grass species safety, use rate and application procedures. Follow all label restrictions, use directions and precautionary statements before using these tank mixtures. Read and follow the "TANK MIXTURES COMPATIBILITY" section of this label for instructions on how to determine the compatibility of tank mixtures.

POSTEMERGENCE CONTROL OF ANNUAL, BIENNIAL & PERENNIAL BROADLEAF WEEDS
Dismiss CAL Herbicide will control or suppress the weeds listed in Table 23 when applied alone shortly after weeds have emerged. Apply Dismiss CAL Herbicide at rates from 4 to 12 fl. oz/acre (0.092 to 0.275 fl. oz./1,000 sq. ft.). Do not exceed the application rate specified for the turfgrass species in Table 27. To broaden the weed spectrum and increase effectiveness for certain weeds listed in Table 4, Dismiss CAL Herbicide may be tank mixed with other EPA registered postemergence herbicides. Control of emerged annual grass weeds may be improved by combining Dismiss CAL Herbicide with Acclaim®, Dimension®, MSMA or Drive®. Read the label recommendations of the tank mix partner to determine turfgrass species safety, use rate and application procedures. Follow all label restrictions, use directions and precautionary statements before using these tank mixtures. Read and follow the "TANK MIXTURES COMPATIBILITY" section of this label for instructions on how to determine the compatibility of tank mixtures.

When used as directed Dismiss CAL Herbicide will control or suppress the following weeds.

Table 28. Weeds Controlled or Suppressed by Dismiss CAL Herbicide

BROADLEAVES	SCIENTIFIC NAMES
Bedstraw, catchweed	(*Galium aparine*)
Beggarweed, Florida	(*Desmodium tortuosum*)
Bittercress	(*Cardamine spp.*)
Black medic	(*Medicago lupulina*)
Buttercups	(*Ranunculus spp.*)
Carolina geranium	(*Geranium carolinianum*)
Carpetweed	(*Mollugo verticillata*)
Chickweed, common	(*Stellaria media*)
Chickweed, mouseear	(*Cerastium vulgatum*)
Cinquefoil	(*Potentilla spp.*)
Clover	(*Trifolium spp.*)
Copperleaf	(*Ascalypha spp.*)
Cudweed	(*Gnaphalium spp.*)
Dandelion	(*Taraxacum officinale*)
Dock, Curly	(*Rumex crispus*)
Dollarweed	(*Hydrocotyl umbellata*)
Eclipta	(*Eclipta prostrata*)

Evening primrose	*(Oenothera bi[illegible]s)*
Fiddleneck	*(Amsinckia sp[illegible])*
Filaree	*(Erodium spp.)*
Galinsoga	*(Galinsoga ciliate)*
Goldenrod	*(Solidago spp.)*
Ground ivy	*(Glechoma hederacea)*
Groundsel, common	*(Senecio vulgaris)*
Henbit	*(Lamium amplexicaule)*
Knawel	*(Scleranthus annuus)*
Knotweed, prostrate	*(Polygonum aviculare)*
Kochia	*(Kochia scoparia)*
Lambsquarters, common	*(Chenopodium album)*
Lawn burweed (spurweed)	*(Soliva pterosperma)*
Lespedeza, common	*(Lespedeza striata)*
Mallow, common	*(Malva neglecta)*
Parsley piert	*(Alchemilla arvensis)*
Pigweed, Redroot	*(Amaranthus retroflexus)*
Pigweed, Smooth	*(Amaranthus hybridus)*
Pigweed, Tumble	*(Amaranthus albus)*
Pineapple weed	*(Matricaria matricarioides)*
Plantain, buckhorn	*(Plantago lanceolata)*
Puncture weed	*(Tribulus terrestris)*
Purslane, common	*(Portulaca oleracea)*
Pusley, Florida	*(Richardia scabra)*
Redweed	*(Melochia corchorifolia)*
Rocket, London	*(Sisymbrium irio)*
Shepherd's purse	*(Capsella bursa-pastoris)*
Smartweed, Pennsylvania	*(Polygonum pensylvanicum)*
Sorrel, Red	*(Rumex acetosella)*
Speedwell	*(Veronica spp.)*
Spurge, (annuals)	*(Euphorbia spp.)*
Spurge, prostrate	*(Euphorbia humistrata)*
Spurge, spotted	*(Euphorbia maculata)*
Star of Bethlehem	*(Ornithogalum umbellatum)*
Velvetleaf	*(Abutilon theophrasti)*
Violet, wild	*(Viola pratincola)*
Violet, Johnny-jump-up	*(Viola rafeinesquii)*
Wild garlic	*(Allium vineale)*
Wild onion	*(Allium canadense)*
Woodsorrel, creeping	*(Oxalis corniculata)*
Woodsorrel, yellow	*(Oxalis stricta)*

POSTEMERGENCE CONTROL OF ANNUAL AND PERENNIAL SEDGES

Dismiss CAL Herbicide will control or suppress sedges (Table 29) when applied at a rate of 4 to 12 fl oz/acre (0.092 to 0.275 fl. oz./1,000 sq. ft.). Apply the highest rate consistent with the rate needed for turfgrass safety in Table 27. Rates lower than 12 fl oz/acre (0.275 fl. oz/1,000 sq. ft.) will generally control sedges for at least 60 days. A rate of 12 fl oz/acre (0.275 fl oz/1,000 sq. ft.) will provide approximately 75% control for at least 60 days. Yellow nutsedge (*Cyperus esculentus*) is the most susceptible sedge species.

Good spray coverage is needed for optimum control of sedges. Temporary discoloration of some turfgrass species may result from use of surfactant. Use of surfactants is not recommended.

Table 29. Sedge species controlled or suppressed by Dismiss CAL Herbicide

Common Name	SCIENTIFIC NAME
Kyllinga, green	*(Kyllinga brevifolia)*
Kyllinga, false green	*(Kyllinga gracillima)*
Nutsedge, purple[1]	*(Cyperus rotundus)*
Nutsedge, yellow	*(Cyperus esculentus)*
Sedge, globe	*(Cyperus globulosus)*
Sedge, cylindric	*(Cyperus retrorsus)*
Sedge, Surinam	*(Cyperus surinamensis)*
Sedge, Texas	*(Cyperus polystachyos)*

1. PURPLE NUTSEDGE; For optimum control of purple nutsedge, split applications are recommended (Table 30). Apply 4-8 ounces per acre as an initial application followed by a second application when evidence of actively growing purple nutsedge is visible. Do not exceed the maximum rate per acre based on turfgrass variety listed in Table 27; Tolerant grasses.

Table 30

Split Application Rate Options		
Grass Type	Option 1 (fluid ounces/acre)	Option 2 (fluid ounces/acre)
Cool Season Grasses excluding Bentgrass (see Table 1)	4 oz followed by 4 oz 35 DAIT	6 oz followed by 2 oz 35 DAIT
Warm Season Grasses (see Table 1)	8 oz followed by 4 oz 35 DAIT	6 oz followed by 6 oz 35 DAIT

DAIT = Days After Initial Treatment

POSTEMERGENCE CONTROL OF GRASSY WEEDS

Dismiss CAL Herbicide will control or suppress specific annual grasses (Table 26) when applied at a rate of 4 to 12 fl oz/acre (0.092 to 0.275 fl. oz./1,000 sq. ft.). Apply the highest rate consistent with the rate needed for turfgrass tolerance in Table 27. Rates lower than 12 fl oz/acre

(0.275 fl. oz/1,000 sq. ft.) will generally control grasses for at least 60 days. Dismiss CAL Herbicide works best if applied when the annual grasses are small (pre tiller stage) and actively growing.

Good spray coverage is needed for optimum control of grasses. Temporary discoloration of some turfgrass species may result from use of surfactant. Use of surfactants is not recommended.

Table 30

Common Name	Scientific Name
Goosegrass	*Eleusine indica*

LABEL TRACKING INFORMATION (43.0)

Label Code: Dismiss CAL Herbicide 09-15-09 ABN

FMC Corporation
Agricultural Products Group
1735 Market Street
Philadelphia Pennsylvania 19103
215-299-6000

NEXT

LABEL

279-3370 10-30-2009 1/34

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF
PREVENTION, PESTICIDES AND
TOXIC SUBSTANCES

Mr. Michael C. Zucker
Senior Registration & Label Specialist
FMC Corporation – Agricultural Product Group
1735 Market Street
Philadelphia, PA 19103

OCT 30 2009

RE: Notification of an Alternate Brand Name: Portfolio CAL Herbicide
EPA Registration Number: 279-3370
Date of Submission: September 16, 2009

Dear Mr. Zucker:

The Agency is in receipt of your Application for Pesticide Notification under Pesticide Registration Notice (PRN) 98-10 dated September 16, 2009, for the above mentioned product. The Registration Division (RD) has conducted a review of this request for its applicability under PRN 98-10 and finds that the actions requested fall within the scope of PRN 98-10. The label submitted with the application has been stamped "Notification" and will be placed in our records.

If you have any questions, please me directly at 703-305-6249 or Joyce Edwards of my staff at 703-308-5479.

Sincerely,

Linda Arrington
Notifications & Minor Formulations Team Leader
Registration Division (7505P)
Office of Pesticide Programs

Please read instructions on reverse before completing form. Form Approved. OMB No. 2070-0060. Approval expires 2-28-95

EPA

United States
Environmental Protection Agency
Washington, DC 20460

- [ ] Registration
- [ ] Amendment
- [x] Other

OPP Identifier Number

Application for Pesticide - Section I

1. Company/Product Number	2. EPA Product Manager	3. Proposed Classification
FMC Corporation/ 279 -3370	Ms. Joanne I. Miller	[x] None [ ] Restricted
4. Company/Product (Name)	**PM#**	
FMC Corporation/Portfolio CAL Herbicide	23	

5. Name and Address of Applicant *(Include ZIP Code)*

FMC Corporation - Agricultural Products Group
1735 Market Street
Philadelphia, PA 19103

[ ] *Check if this is a new address*

6. Expedited Reveiw. In accordance with FIFRA Section 3(c)(3)(b)(i), my product is similar or identical in composition and labeling to:

EPA Reg. No. 279 - 3370

Product Name F6285 4F CAL Herbicide

Section - II

- [ ] Amendment - Explain below.
- [ ] Resubmission in response to Agency letter dated _____
- [x] Notification - Explain below.
- [ ] Final printed labels in repsonse to Agency letter dated
- [ ] "Me Too" Application.
- [ ] Other - Explain below.

NOTIFICATION

OCT 3 0 2009

Explanation: Use additional page(s) if necessary. (For section I and Section II.)

Notification of an alternate brand name per PR Notice 98-10.
This notification is consistent with the provisions of PR Notice 98-10 and EPA regulations at 40 CFR 152.46, and no other changes have been made to the labeling or the confidential statement of formula of this product. I understand that it is a violation of U.S.C. Sec.1001 to willfully make any false statement to EPA. I further understand that if this notification is not consistent with the terms of PR Notice 98-10 and 40 CFR 152.46, this product may be in violation of FIFRA and I may be subject to enforcement action and penalties under sections 12 and 14 of FIFRA.

Section - III

1. Material This Product Will Be Packaged In:

Child-Resistant Packaging	Unit Packaging		Water Soluble Packaging		2. Type of Container
[ ] Yes [x] No	[ ] Yes [x] No		[ ] Yes [x] No		[ ] Metal [x] Plastic [ ] Glass [ ] Paper [ ] Other (Specify)
* *Certification must be submitted*	If "Yes" Unit Packaging wgt.	No. per container	If "Yes" Package wgt	No. per container	

3. Location of Net Contents Information	4. Size(s) Retail Container	5. Location of Label Directions
[ ] Label [x] Container		[x] on label/container

6. Manner in Which Label is Affixed to Product: [x] Lithograph [ ] Paper glued [ ] Stenciled [ ] Other _____

Section - IV

1. Contact Point *(Complete items directly below for identification of individual to be contacted, if necessary, to process this application.)*

Name	Title	Telephone No. (Include Area Code)
Michael C. Zucker	Senior Registration & Label Specialist	(215)299-5876

Certification

I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowlingllly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.

2. Signature	3. Title	6. Date Application Received
Michael C. Zucker	Senior Registration & Label Specialist	(Stamped)
4. Typed Name: Michael C. Zucker	5. Date: September 16, 2009	

FMC Agricultural Products

FMC Corporation
1735 Market Street
Philadelphia, PA 19103

215.299.6000 Phone
215.299.6468 Fax

www.fmc.com

September 16, 2009

United States Environmental Protection Agency
Document Processing Desk (Notifications)
Office of Pesticide Programs (7504P)
One Potomac Yard, Room S-4900
2777 South Crystal Drive
Arlington, VA 22202

Dear Ms. Miller:

Subject: Portfolio CAL Herbicide
EPA Reg. No. 279-3370

Notification of an Alternate Brand Name per PR Notice 98-10.

FMC is notifying the Agency that Portfolio CAL Herbicide is an alternate brand name for F6285 4F CAL Herbicide.

Enclosed please find the following documents:

Cover Letter
Form 8570-1
One copy of the Portfolio CAL Herbicide label.

If you have any questions, or if I can be of any further assistance, please feel free to contact me at (215) 299-5876 or by e-mail at mike_zucker@fmc.com.

Sincerely,

Michael C. Zucker
Senior Registration & Label Specialist
FMC Corporation
Agricultural Products Group

FMC

Portfolio CAL
Herbicide

For Use Only by Individuals/Firms Certified And/or Licensed as Pesticide Applicators

NOTIFICATION
OCT 30 2009

EPA Reg. No. 279-3370 EPA Est. 279-
Active Ingredient: By Wt. (1)

Sulfentrazone	39.6%
Inert Ingredients:	60.4%
	100.0%

Contains 4 pounds of active ingredient per gallon.
U.S. Patent No. 4,818,275

KEEP OUT OF REACH OF CHILDREN

CAUTION

FIRST AID (2.0)

If Inhaled
Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice.
If on Skin or Clothing
Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.
If in Eyes
Hold eye open and rinse slowly and gently with water for 15- 20 minutes. Remove contact lenses, if present, after the first 5 minutes. Then continue rinsing eye. Call a poison control center or doctor for treatment advice.
If Swallowed
Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person.

HOTLINE NUMBER (3)

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-331-3148 for emergency medical treatment information.

Note to Physician: Sulfentrazone is expected to have low oral and dermal toxicity, and moderate inhalation toxicity. It is expected to be slightly irritating to the skin and minimally irritating to the eyes. Treatment is otherwise controlled removal of exposure followed by symptomatic and supportive care.

See other sections for precautionary information.

ACTIVE INGREDIENT MADE IN CHINA AND FORMULATED AND PACKAGED IN USA.

From FMC

Group 14 Herbicide

ATTENTION

-Although this label may appear similar to the label of a product you may have used, there may be important label differences. Users must read, understand and strictly follow all label directions, precautions and restrictions.

-It is the user's responsibility to be sure the product is approved for sale or use on the intended crop and for use in the specific geographic area.

-It is the user's responsibility to be aware of and to follow all State or local precautions or restrictions not appearing on this product label.

-Prior to purchase or use of this product, read the Terms of Sale or Use and Limitation of Warranty and Liability on page 2 of this label. If the terms and conditions are unacceptable, return the product immediately in the original and unopened container.

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PRECAUTIONARY STATEMENTS (4.0)

Hazards to Humans and Domestic Animals (4.1)

Caution

Causes moderate eye irritation. Harmful if inhaled, swallowed, or absorbed through skin. Avoid breathing vapor or spray mist. Avoid contact with skin, eyes or clothing.

Personal Protective Equipment (PPE) (4.2)

Applicators and other handlers must wear: long-sleeved shirt and long pants, chemical-resistant gloves made of any waterproof material such as polyethylene or polyvinyl chloride, and shoes plus socks.

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product. Do not reuse them. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

User Safety Recommendations:

Users should:

• Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

Environmental Hazards (4.3)

This pesticide is toxic to marine/estuarine invertebrates. Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Drift and runoff may be hazardous to terrestrial and aquatic plants in neighboring areas. Do not contaminate water when disposing of equipment washwaters or rinsate.

Groundwater advisories: This chemical is known to leach through soil into groundwater under certain conditions as a result of label use. Use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination.

Do not use on coarse soils classified as sand, which have less than 1% organic matter.

Surface water advisory: Sulfentrazone can contaminate surface water through spray drift. Under some conditions, sulfentrazone may also have a high potential for runoff into surface water (primarily via dissolution in runoff water), for several to many months post-application. These include poorly draining or wet soils with readily visible slopes toward adjacent surface waters, frequently flooded areas, areas overlying extremely shallow groundwater, areas with in-field canals or ditches that drain to surface water, areas not separated from adjacent surface waters with vegetated filter strips, and areas over-lying tile drainage systems that drain to surface waters.

Physical/Chemical Hazards (4.4)

Do not use or store near heat or open flame.

DIRECTIONS FOR USE (5.0)

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

For Use Only in the State of California.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application.

Do not apply more than the allowed amount of Portfolio CAL Herbicide per acre per twelve-month period as stated in Table 2. The twelve-month period is considered to begin upon the initial Portfolio CAL Herbicide application.

For any requirements specific to your State or Tribe, consult the Agency responsible for pesticide regulation.

AGRICULTURAL USE REQUIREMENTS (5.1)

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry interval. These requirements only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 12 hours.

Personal Protective Equipment (PPE) required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water is: Coveralls over long-sleeved shirt and long pants, chemical-resistant gloves made of any waterproof material, and shoes plus socks.

Non-Agricultural Use Requirements

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries, or greenhouses.

Re-entry Statement: Do not allow people (other than applicator) or pets on treatment area during application. Do not enter treatment area until spray has dried.

STORAGE AND DISPOSAL (5.?

Do not contaminate water, food or feed by storag. .f disposal. Do not use or store around the home.

Pesticide Storage
Store product in original container only, away from other pesticides, fertilizer, food or feed.
Store in a cool, dry place and avoid excess heat.

In Case of Spill
In case of spill, avoid contact, isolate area and keep out animals and unprotected persons. Confine spills. Call FMC: (800) 331-3148.

To Confine Spill
To confine spill: If liquid, dike surrounding area or absorb with sand, cat litter or commercial clay. If dry material, cover to prevent dispersal. Place damaged package in a holding container. Identify contents.

Pesticide Disposal
Waste resulting from the use of this product may be disposed of at an approved waste disposal facility.

Container Disposal
Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: (For containers greater than 5 gallons) Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. (For containers 5 gallons or less) Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow
begins to drip. Repeat this procedure two more times. Triple rinse (or equivalent). Then offer for recycling if available, or reconditioning, or puncture and dispose of in a sanitary landfill, or incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of
smoke.

Returnable/Refillable Containers - Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. ¶ To clean the container before final disposal, empty the remaining contents into application equipment or mix tank. Fill the container about 10% full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times.

CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY (6.0)

Notice: Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before buying or using this product. If the terms are not acceptable, return the product at once, unopened, and the purchase price will be refunded.

The Directions for Use of this product must be followed carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Crop injury, ineffectiveness, or other unintended consequences may result because of such factors as manner of use or application, weather or crop conditions beyond the control or FMC or Seller. All such risks shall be assumed by Buyer and User, and, to the extent consistent with applicable law, Buyer and User agree to hold FMC and Seller harmless for any claims relating to such factors.

Seller warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated on the Directions for Use when used in accordance with the directions under normal conditions of use. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, FMC MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE, NOR ANY OTHER EXPRESS OR IMPLIED WARRANTIES WITH RESPECT TO THE SELECTION, PURCHASE, OR USE OF THIS PRODUCT. Any warranties, express or implied, having been made are inapplicable if this product has been used contrary to label instructions, or under abnormal conditions, or under conditions not reasonably foreseeable to (or beyond the control of) seller or FMC, and, to the extent consistent with applicable law, buyer assumes the risk of any such use.

To the extent consistent with applicable law, FMC or seller shall not be liable for any incidental, consequential or special damages resulting from the use or handling of this product. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF FMC AND SELLER FOR ANY AND ALL CLAIMS. LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT OR, AT THE ELECTION OF FMC OR SELLER, THE REPLACEMENT OF THE PRODUCT.

This Conditions of Sale and Limitation of Warranty and Liability may not be amended by any oral or written agreement.

RESISTANCE MANAGEMENT (7.0)

Some weeds are known to develop resistance to herbicides that have been used repeatedly. While the development of herbicide resistance is well understood, it is not easily predicted. Therefore herbicides should be used in conjunction with the resistance management strategies in the area. Consult the local or State agricultural advisors for details. If herbicide resistance should develop in the area, this product used alone may not continue to provide sufficient levels of weed control. If the reduced levels of control can not be attributed to improper application techniques, improper use rates, improper application timing, unfavorable weather conditions or abnormally high weed pressure, a resistant strain of weeds may have developed.

To reduce the potential for weed resistance use this product in a rotation program with other classes of chemistry and modes of action. Always apply this product at the recommended rates and in accordance with the use directions. Do not use less than recommended label rates alone or in tank mixtures. Do not use reduced rates of the tank mix partner. For optimum performance, scout fields carefully and begin applications when weeds are smaller rather than larger. If resistance is suspected, contact the local or State agricultural advisors.

GENERAL INFORMATION (8.0)

Portfolio CAL Herbicide is a selective soil-applied herbicide for the control of susceptible broadleaf, grass and sedge weeds. Portfolio CAL Herbicide is formulated as a 4 pounds per gallon flowable containing the active ingredient, sulfentrazone. **If adequate moisture (1/2" to 1") from rainfall or irrigation is not received within 7 to 10 days after the Portfolio CAL Herbicide treatment, a shallow incorporation may be needed to obtain desired weed control.** When activating moisture is received after dry conditions, Portfolio CAL Herbicide will provide a reduced level of control of susceptible germinating weeds. Soil applications of Portfolio CAL Herbicide must be made before crop seed germination to prevent injury to the emerging crop seedlings. When applications after planting are delayed, injury may occur if seeds are germinating or if they are located near the soil surface

Observe all instructions, crop restrictions, mixing directions, application precautions, replanting directions, rotational crop guidelines and other label information of each product when tank mixing with Portfolio CAL Herbicide.

Proper handling instructions: Portfolio CAL Herbicide may not be mixed or loaded within 50 feet of any wells (including abandoned wells and drainage wells), sinkholes, perennial or intermittent streams and rivers, and natural or impounded lakes and reservoirs. This setback does not apply to properly capped or plugged abandoned wells and does not apply to impervious pads or properly diked mixing/loading areas.

Operations that involve mixing, loading, rinsing, or washing of this product into or from pesticide handling or application equipment or containers within 50 feet of any well are prohibited unless conducted on an impervious pad constructed to withstand the weight of the heaviest load that may be positioned on or moved across the pad. Such a pad shall be designed and maintained to contain any product spills or equipment leaks, container or equipment rinse or washwater, and rainwater that may fall on the pad. Surface water shall not be allowed to either flow over or from the pad, which means the pad must be self-contained. The pad shall be sloped to facilitate material removal. An unroofed pad shall be of sufficient capacity to contain at a minimum 110% of the capacity of the largest pesticide container or application equipment on the pad. A pad that is covered by a roof of sufficient size to completely exclude precipitation from contact with the pad shall have a minimum containment capacity of 100% of the capacity of the largest pesticide container or application equipment on the pad. Containment capacities as described above shall be maintained at all times. The above specific minimum containment capacities do not apply to vehicles when delivering pesticide shipments to the mixing/loading site. States may have in effect additional requirements regarding wellhead setbacks and operational containment.

Product must be used in a manner that will prevent back siphoning in wells, spills or improper disposal of excess pesticide, spray mixtures or rinsates.

GENERAL APPLICATION INSTRUCTIONS (9.0)

Portfolio CAL Herbicide may be applied to soil as a preplant incorporated treatment or as a pre-emergence (prior to weed and/or crop emergence) surface application. Additional application methods include post-plant treatments, over-the-top and layby, in various crops. Application methods are defined in the following Crop Use Directions sections.

Preplant incorporated treatments require a uniform surface application followed by incorporation. Do not incorporate to a depth greater than 2 inches which may result in poor weed control. Care must be taken not to create overlaps in treated zones due to soil movement, which will result in excessive Portfolio CAL Herbicide rates that could result in adverse crop response.

All soil applications and the residual activity of post-plant applications of Portfolio CAL Herbicide require adequate moisture for herbicidal activation. The ultimate amount of moisture, whether supplied by rainfall or irrigation, is dependent on several factors. These factors include but are not limited to existing soil moisture at application, soil type, organic matter and tilth. In crop situations dependent on rainfall, Portfolio CAL Herbicide can await activating moisture for extended periods (10 to 14 days or longer) depending on the soil parameters described above. Once activated, Portfolio CAL Herbicide will provide activity on existing weeds. The level of activity will depend on the weed species and their size at time of activation. Where irrigation is not available and rainfall has not provided activation, particularly for surface applications of Portfolio CAL Herbicide, a shallow incorporation is recommended for destruction of any germinating weeds and to incorporate Portfolio CAL Herbicide. Herbicide incorporation will initiate the process of activation with existing soil moisture. In circumstances where prolonged periods without rainfall and/or irrigation is not possible, alternative or additional weed management practices (cultivation or post-applied herbicides) may be required.

Extreme care must be exercised and the Crop Specific Use Directions followed exactly in crops allowing post plant applications of Portfolio CAL Herbicide. Over-the-top and lay-by applications will provide contact and residual weed control, depending on species. The addition of surfactants may increase contact weed control performance but may also increase the risk of adverse crop response as well.

CALIFORNIA ONLY SPECIFIC RESTRICTIONS ON APPLICATIONS OF PORTFOLIO CAL HERBICIDE. (9.1)

Artificial Recharge Basins. Do not use below the high water line inside artificial recharge basins (a surface facility, such as an infiltration pond or basin, or spreading ground that is specifically designed and managed to increase the infiltration of introduced surface water supplies into a ground water basin) unless this product is applied six months or more before the basin is used to recharge ground water.

Unlined Canals and Ditches. Do not use below the high water line inside unlined canals and ditches unless either (a) the pesticide user can document that the percolation rate of the canal or ditch is equal to or less than 0.2 inches per hour (0.002 gallons per minute per square foot), or (b) the pesticide is applied six months before water is run in the canal or ditch.

Rights-of-Way. Do not use on engineered rights-of-way in areas established by the California Department of Pesticide Regulation as leaching or runoff ground water protection areas* unless either (a) any runoff from the treated right-of-way shall pass through a noncrop fully vegetated area adjacent, and equal in area, to the treated area, or spread out onto an adjacent unenclosed fallow field that is at least 300 feet long and that will not be irrigated for six months following application with the exception of the addition of adequate moisture that is required for herbicidal activation following application as described under General Application Instructions, with full consideration of any plantback restrictions, or (b) the property operator complies with any permit issued pursuant to the storm water provisions of the federal Clean Water Act eprtaining to the treated area.

Runoff Ground Water Protection Areas. Do not use in areas identified by the California Department of Pesticide Regulation as a runoff ground water protection areas* unless one of the following management practices can be met:

(a) Soil disturbance. Within seven days before this product is applied, the soil to be treated shall be disturbed by using a disc, harrow, rotary tiller, or other mechanical method. This subsection does not apply to the area to be treated that is immediately adjacent to the crop row and that does not exceed 33 percent of the distance between crop rows or, in citrus, to the band from the tree row to the dripline; or

(b) Incorporation of the pesticide. Within 48 hours after the day this product is applied, the pesticide shall be incorporated on at least 90 percent of the area treated; using a disc, harrow, rotary tiller, or other mechanical method, or by sprinkler or low flow irrigation, including chemigation where allowed by the label, using a minimum of ¼ inch of irrigation water and a maximum of one inch as described under General Application Instructions, at application rates that do not cause surface water runoff from the treated property or to wells on the treated property; or

(c) Band treatment. This product is applied as a band treatment immediately adjacent to the crop row so that not more than 33 percent of the distance between rows is treated or, in citrus, not more than the area from the tree row to the dripline is treated; or

(d) Timing of application. This product is applied between April 1 and July 31; or

(e) Retention of runoff on field. For six months following the application, the field shall be designed, by berms, levees, or nondraining circulation systems, to retain all irrigation runoff and all precipitation on, and drainage through, the field. The retention area on the field shall not have a percolation rate of more than 0.2 inches per hour (5 inches per 24 hours); or

(f) Retention of runoff in a holding area off the field. For six months following the application, all runoff shall be channeled to a holding area off the application site, under the control of the property operator, that is designed to retain all irrigation runoff and all precipitation on, and drainage through, the treated field and all other areas draining into that holding area. The holding area shall not have a percolation rate of more than 0.2 inches per hour (5 inches per 24 hours); or

(g) Runoff onto a fallow field. For six months following application, runoff shall be managed so that it runs off into an adjacent unenclosed fallow field at least 300 feet long that is not irrigated for six months after application with the exception of the addition of adequate moisture that is required for herbicidal activation following application as described under General Application Instructions, with full consideration of any plant back restrictions.

Leaching Ground Water Protection Areas. Do not use in areas designated by the California Department of Pesticide Regulation as leaching ground water protection areas* unless either (a) the user does not apply any irrigation water for six months following application of this product or (b) the user applies this product to the planting bed or the berm above the level of irrigation water in the furrow or basin and the water level shall remain at or below that level for six months following application of the pesticide with the exception of the addition of adequate moisture that is required for herbicidal activation following application as described under General Application Instructions, or (c) irrigation is managed so that the ratio of the amount of irrigation water applied divided by the net irrigation requirement is 1.25 or less for six months following application of this product.

* Consult with your County Agricultural Commissioner to determine whether the application will be within an area designated by the California Department of Pesticide Regulation as either a Runoff Ground Water Protection Area or a Leaching Ground Water Protection Area. Details regarding the locations of these Areas are also available via the internet at www.cdpr.ca.gov/docs/emon/ grndwtr/gwp_regs.htm.

PORTFOLIO CAL HERBICIDE PRODUCT USE RATES (10.0)

The following directions for the selection of Portfolio CAL Herbicide application rates are critical to achieve maximum performance and to insure maximum crop safety. The user is required to read and follow the specific Portfolio CAL Herbicide use directions and restrictions for each crop as defined in subsequent sections of this label. The user is cautioned that some crops respond differently to Portfolio CAL Herbicide. This response is governed by the Portfolio CAL Herbicide application rate, various soil factors and inherent crop sensitivity. The Crop Specific Use Directions have been designed to minimize the risk of adverse crop response while maintaining optimum weed control.

Mode of Action (10.1)
Sulfentrazone, the active ingredient in Portfolio CAL Herbicide, is a potent inhibitor of the enzyme Protoporpyrinogen Oxidase IX (PPO IX) required for the formation of chlorophyll. Inhibition of PPO IX enzyme results in the liberation of singlet oxygen (O) that, in turn, disrupts cellular membranes and causes cellular leakage. The ultimate manifestation of the process is cellular death leading to plant death. The selective herbicidal activity of sulfentrazone is based on its greater affinity for the PPO IX enzyme in weed species versus crop plants.

Mechanism of Action (10.2)
Following the application of Portfolio CAL Herbicide to soil, germinating seeds and seedlings take up sulfentrazone from the soil solution. The amount of sulfentrazone in soil solution, and available for weed uptake, is determined primarily by soil type, organic matter and soil pH. Sulfentrazone adsorbs to the clay and organic matter (OM) fractions of soils; effectively limiting the amount of active ingredient immediately available to control weeds. Soils typically increase in clay content through the series from coarse to fine as noted in the following Soil Classification Chart, Table 1.

SOIL CLASSIFICATION CHART

Table 1

COARSE	MEDIUM	FINE
Sand	Sandy clay loam	Silty clay loam
Loamy sand	Sandy clay	Silty clay
Sandy loam	Loam	Clay loam
	Silt loam	Clay
	Silt	

Influence of Soil type, organic matter and pH on Portfolio CAL Herbicide Use Rates and Crop Response
Soil organic matter content can vary widely and independently of soil type and requires an accurate analysis of representative soil samples to determine its content.

Soil pH also exerts a dramatic affect on sulfentrazone availability in the soil solution. As soil pH increases, sulfentrazone availability increases. Accurate soil pH information will require an accurate analysis of representative soil samples.

The total amount of sulfentrazone available in solution, in any given soil, is determined by the interaction of soil type (clay content), % organic matter and pH. The application timing (relative to the emergence of the crop and weeds) and amount of rainfall and/or irrigation received will ultimately determine, in conjunction with the soil parameters and pH, the amount of sulfentrazone in soil solution. It is important to note that Portfolio CAL Herbicide can await activating moisture. However, diminished weed control may result due to the successive increase in weed growth versus timing of activation.

It is important to note that irrigation with highly alkaline water (high pH) following a Portfolio CAL Herbicide soil application can also significantly increase the amount of sulfentrazone available in the soil solution. Irrigation with water having a pH greater than 7.5 could result in adverse crop response. This response will ultimately depend on initial Portfolio CAL Herbicide application rate, timing, amount and pH of irrigation water and sensitivity of the crop and it's growth stage when irrigated. The risk of adverse crop response will lessen with the advance in growth stage among most crops.

The following Crop Specific Use Directions have been designed with specific Portfolio CAL Herbicide recommendations for each crop based on the soil type, soil organic matter, and soil pH interactions described above. The user is cautioned that crop tolerance and weed control performance are based on strict adherence to these recommendations.

APPLICATION INFORMATION (11.0)

Ground Application

Utilize a boom and nozzle sprayer equipped with the appropriate nozzles, spray tips and screens and adjusted to provide optimum spray distribution and coverage at the appropriate operating pressures. Utilize nozzles that produce minimal amounts of fine spray droplets to avoid spray drift or inadequate foliar and/or soil coverage. Apply a minimum of 10 gallons of finished spray per acre by ground. Be aware that overlaps and slower ground speeds while starting, stopping or turning while spraying may result in excessive application and subsequent crop response.

Do not apply when wind speed favors drift beyond the area intended for treatment.

Aerial Application (11.2)

Use nozzle types and arrangements that will provide optimum coverage while producing a minimal amount of fine droplets. Apply sufficient spray volume to achieve adequate coverage. Apply a minimum of 5 gallons of finished spray per acre.

Do not apply when wind speed favors drift beyond the area intended for treatment.

Chemigation Application (11.3)

Portfolio CAL Herbicide may be applied through sprinkler irrigation systems including center pivot, lateral move, end tow, solid set, or hand move irrigation systems. Do not apply this product through any other type of irrigation system. Do not connect any irrigation system (including greenhouse systems) used for pesticide application to a public water system. Crop injury, lack of effectiveness or illegal residues on or in the crop can result from non-uniform distribution of treated water. If you have questions about calibration, you should contact State Extension Service specialists, equipment manufacturers, or other experts. A person knowledgeable of the chemigation system and responsible for its operation, or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.

It is important to note that irrigation with highly alkaline water (high pH) following a Portfolio CAL Herbicide soil application can also significantly increase the amount of sulfentrazone available in soil solution. Irrigation with water having a pH greater than 7.5 could result in adverse crop response. This response will ultimately depend on initial Portfolio CAL Herbicide application rate, application timing, amount and pH of the irrigation water, and the sensitivity of the crop and the growth stage when irrigated. The risk of adverse crop response will lessen with advancing growth stages of most crops.

The system must contain a functional check valve, vacuum relief valve, and low-pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow. The pesticide injection pipeline must also contain a functional automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump. The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops. The irrigation line or water pump must include a functional pressure switch, which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.

Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

Portfolio CAL Herbicide should be metered into the irrigation system continuously for the duration of the water application. Portfolio CAL Herbicide should be diluted in sufficient volume to insure accurate application over the area to be treated. Use the appropriate amount of water to carry the product to the soil surface. Continuous agitation is required to maintain product suspension in the solution tank. A jar test should be conducted to ensure that phase separation would not occur during dilution and application. Failure to achieve a uniform dilution throughout the time of application may result in undesirable residues or less than desirable weed control. Flush the lines at the completion of the application and then turn the water off promptly.

When using water from public water systems; DO NOT APPLY Portfolio CAL Herbicide THROUGH ANY IRRIGATION SYSTEM **PHYSICALLY CONNECTED** TO A PUBLIC WATER SYSTEM. Public water system means a system for the provision to the public of piped water for human consumption if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days of the year. Portfolio CAL Herbicide may be applied through irrigation systems, which may be **supplied** by a public water system **only if** water from the water system is discharged into a reservoir tank prior to pesticide introduction. There shall be a complete physical break (air gap) between the outlet end of the fill pipe and to top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe. Before beginning chemigation, always make sure that the air gap exists and that there is no blockage of the overflow of the reservoir tank.

Application with Dry Fertilizers (11.40)

Portfolio CAL Herbicide may be applied impregnated on dry fertilizers. When applied as directed with adequate soil coverage, Portfolio CAL Herbicide dry bulk fertilizer mixtures will provide satisfactory weed control.

Follow all Portfolio CAL Herbicide label directions regarding product use rates per acre, registered crops, incorporation, special instructions and precautions.

Apply Portfolio CAL Herbicide/dry fertilizer mixtures with ground equipment only.

All individual state regulations relating to dry bulk fertilizer blending, registration, labeling, and application are the responsibility of the individual and/or company preparing, storing, transporting, selling or applying the Portfolio CAL Herbicide /dry fertilizer mixture.

Impregnation Directions (11.41)

To impregnate Portfolio CAL Herbicide on dry bulk fertilizer, use a closed rotary-drum mixer or other commonly used dry bulk fertilizer blender equipped with suitable spray equipment.

Prepare a slurry of Portfolio CAL Herbicide in a clean container using clear water. Slowly add the Portfolio CAL Herbicide /water slurry to the impregnation spray tank and finish filling as needed with clear water. Spray nozzles must be placed to provide uniform coverage of Portfolio CAL Herbicide onto the fertilizer during mixing.

Refer to the SPRAYER EQUIPMENT CLEAN-OUT section for directions for cleaning impregnation equipment, transport equipment, loading equipment and application equipment.

Apply the Portfolio CAL Herbicide dry bulk fertilizer with an accurately calibrated dry fertilizer spreader. The Portfolio CAL Herbicide dry bulk fertilizer mixture must be spread uniformly on the soil surface. Uneven spreading leaving untreated areas can cause poor weed control or overlapping areas with potential increased Portfolio CAL Herbicide use rates could result in possible crop response.

A minimum of 200 pounds of dry bulk fertilizer impregnated with the recommended amount of Portfolio CAL Herbicide must be applied per acre to achieve adequate soil coverage for satisfactory weed control.

DO NOT impregnate Portfolio CAL Herbicide onto coated ammonium nitrate or limestone because these materials will not absorb the herbicide.

Refer to the appropriate crop section of the Portfolio CAL Herbicide label to determine the rate of Portfolio CAL Herbicide to be applied per acre. Use the following table to determine the amount of Portfolio CAL Herbicide to be impregnated on a ton (2000 pounds) of dry bulk fertilizer based on the rate of fertilizer that will be applied per acre.

For those rates not listed in the following table, calculate the amount of Portfolio CAL Herbicide to be impregnated on a ton of dry bulk fertilizer using the following formula:

$$\frac{2000}{\text{Pounds dry fertilizer per acre}} \times \text{Portfolio CAL use rate in fluid ounces per acre} = \text{ounces of Portfolio CAL to be applied per ton of fertilizer}$$

RATE CHART FOR IMPREGNATION OF DRY BULK FERTILIZERS WITH PORTFOLIO CAL Herbicide
Table 2

	Ounces Portfolio CAL Herbicide per ton of fertilizer		
	Portfolio CAL Herbicide Use Rate Per Acre		
Dry Fertilizer Rate (lb/acre)	8.0 Fluid Ounces per Acre	10.1 Fluid Ounces per Acre	12.0 Fluid Ounces per Acre
200	80	101	120
250	64	80.8	96
300	53.3	67.3	80
350	45.7	57.7	68.6
400	40	50.5	60
450	35.6	44.9	53.3

Application with Liquid Fertilizer (11.42)

Portfolio CAL Herbicide may be applied using liquid fertilizer solutions as the carrier. The fertilizer solutions may either be concentrate formulations as blended or diluted with water. When applied as directed with adequate soil coverage, Portfolio CAL Herbicide applied with liquid fertilizer mixtures will provide satisfactory weed control. However, adequate soil coverage is essential to achieve acceptable levels of weed control.

Herbicide mixing, solution stability and/or compatibility problems can occur when liquid fertilizers are used as a carrier. Compatibility tests must be conducted prior to mixing to insure tank mixture compatibility and stability. The use of compatibility agents may be beneficial to achieve and maintain a homogenous solution.

Mixing Instructions for Liquid Fertilizer Applications (11.43)
Fill the clean spray tank to one half of the total volume with the fertilizer solution. Start the spray tank agitation system. Prepare a slurry of Portfolio CAL Herbicide in a clean container with clean water using equal volumes of Portfolio CAL Herbicide and clean water. Slowly add the Portfolio CAL Herbicide /water slurry to the spray tank. Carefully rinse the slurry container, adding the rinsate to the spray tank. Better mixing of the Portfolio CAL Herbicide /water slurry may be achieved if the slurry is added using induction systems on the sprayer fill plumbing system.

Complete filling the spray tank to the desired level. Sufficient and continuous spray tank agitation is required at all times to maintain a homogenous spray solution. The spray system must be designed such that there is sufficient flow capacity to uniformly apply the spray mixture and maintain adequate tank agitation. Some systems may require separate pumps to simultaneously supply the spray system and the spray tank agitation system. Insure the Portfolio CAL Herbicide slurry is thoroughly mixed before application.

For tank mixtures with other herbicide(s), a compatibility test must be conducted to insure product compatibility before mixing. Read and follow all the directions, precautions and restrictions of the tank mixture products prior to mixing.

Apply the Portfolio CAL Herbicide spray mixture immediately after mixing. Do not store the sprayer overnight or for any extended period of time with the Portfolio CAL Herbicide spray mixture remaining in the tank.

Do not premix Portfolio CAL Herbicide spray solutions in nurse tanks.

Follow all Portfolio CAL Herbicide label directions regarding product use rates per acre, registered crops, application instructions, incorporation directions, special instructions and all precautions.

All individual state regulations relating to liquid fertilizer blending, storage, transportation, registration, labeling, and application are the responsibility of the individual and/or company preparing, selling or applying the Portfolio CAL Herbicide and fertilizer mixture.

SPRAY DRIFT REDUCTION ADVISORY (12.0)

To avoid drift, do not apply when wind speeds exceed 10 mph. Do not exceed spray pressures of 40 psi unless specified by the manufacturer of drift reducing spray tips and nozzles.

Spray Drift Management (12.1)
AVOIDING SPRAY DRIFT AT THE APPLICATION SITE IS THE RESPONSIBILITY OF THE APPLICATOR AND THE GROWER.

The interaction of many equipment and weather related factors determine the potential for spray drift. The applicator and the grower are responsible for considering all these factors when making decisions.

The following drift management requirements must be followed to avoid off-target movement from aerial applications. These requirements do not apply to forestry applications, public health uses or to applications of dry materials.

1. The distance of the outermost nozzles on the boom must not exceed ¾ the length of the wingspan or rotor.
2. Nozzles must always point backward parallel with the air stream and never be pointed downwards more than 45 degrees.
3. Observe the regulations of the State where applications are made.
4. Applicators must observe and abide by the requirements of the Aerial Drift Reduction Advisory.

Information on Droplet Size
The most effective way to reduce drift potential is to apply large droplets. The best drift management strategy is to apply the largest droplets that provide sufficient coverage for pesticide performance. Applying larger droplets reduces drift potential but will not prevent drift if applications are made improperly or under unfavorable environmental conditions. (See information on Wind, Temperature and Humidity, and Temperature Inversions in subsequent sections).

Controlling Spray Droplet Size (12.3)
Volume – Use high flow rate nozzles to apply the greatest practical spray volume. Nozzles with higher rated flow generally produce larger droplets.

Pressure - When higher flow rates are needed, use higher flow rate nozzles rather than increasing spray pressure.

Do not exceed the nozzle manufacturer's recommended pressures. Lower pressure produces larger droplets in many types of nozzles.

Number of Nozzles – Use the minimum number of nozzles that provide uniform coverage.

Nozzle Orientation – For aerial application, the recommended practice is to orient nozzles so that the spray is released parallel to the airstream. This orientation usually produces larger droplets as compared to other nozzle orientations. Significant nozzle deflection from horizontal will reduce droplet size and increase drift potential.

Nozzle Type - Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low drift nozzles for both ground and aerial applications. Solid stream nozzles oriented straight back usually produce the largest droplets and the lowest drift potential in aerial applications

Boom Length – For some aerial use patterns, reducing the effective boom length to less than ¾ of the wingspan or rotor length may further reduce drift without reducing swath width.

Application Height - Aerial applications should not be made at a height greater than 10 feet above the top of the target plant canopy unless a greater height is required for aircraft safety. Making applications at the lowest height that is safe reduces exposure of droplets to evaporation and wind.

Swath Adjustment – When aerial applications are made with a crosswind, the swath will be displaced downwind. Therefore, on the upwind and downwind edges of the field, the applicator must compensate for this displacement by the path of the aircraft upwind. Swath adjustment or offset distance should increase when conditions favor increased drift potential (higher winds, smaller droplets, etc).

Wind – Drift potential is lowest between wind speeds of 3-10 mph. However, many factors, including droplet size and equipment type determine drift potential at any given wind speed. Application should be avoided below 3 mph due to variable wind direction and high inversion potential. NOTE: Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they may potentially affect spray drift .

Temperature and Humidity – When making applications in low relative humidity, set up equipment to produce larger droplets to compensate for evaporation. Droplet evaporation is most severe when conditions are both hot and dry.

Temperature Inversions – Applications should not occur during a temperature inversion because drift potential is high. Temperature inversions restrict vertical air mixing, which causes small-suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions due to the low speed and variable winds common during inversions. Temperature inversions are characterized by increasing temperatures with altitude and are common during conditions of limited cloud cover and little to no wind. They often begin to form as the sun sets and may often continue into the morning. The presence of a temperature inversion may be indicated by ground fog. However if fog is not present, the movement of smoke from a ground source or an aircraft smoke generator can also identify inversions. Smoke that remains in layers and moves laterally in a concentrated cloud (under low speed wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.

Sensitive Areas – The pesticide should only be applied when the wind is blowing away from sensitive areas (e.g. residential areas, bodies of water, known habitat for threatened or endangered species, non-target crops).

Off-Target Movement of Portfolio CAL Herbicide
Drift of dilute spray mixtures containing Portfolio CAL Herbicide must be prevented. Observation of the preceding environmental conditions, correct application equipment design, calibration and application practices will significantly diminish the risk of off-target spray drift. Portfolio CAL Herbicide can cause significant symptomology by drift on to sensitive crops and other plants. This symptomology may manifest initially as discreet, localized spots where contacted by Portfolio CAL Herbicide drift mixtures. Depending on concentration of the spray solution and droplets size (effectively determining the dosage of sulfentrazone) and also depending on the inherent sensitivity of the plants involved, these spots or lesions may or may not coalesce. These effects will usually not have lasting effects on plant growth, but will likely reduce the value of affected fruit or foliage where grade or quality is associated with appearance. In severe drift instances with particularly sensitive crops, defoliation of affected foliage could result. Failure to follow these

guidelines and environmental prohibitions that the result in off-target movement or drift of Portfolio CAL Herbicide on to unintended crops or plants, irrespective of severity, constitutes misapplication of this product. FMC accepts no responsibility or liability for potential crop effects that may result from such misapplication of Portfolio CAL Herbicide.

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MAXIMUM ALLOWABLE PORTFOLIO CAL HERBICIDE USE PER ACRE PER 12 MONTH PERIOD* (13.0)

Refer to the crop section of this label for specific product use directions.
Table 3

Crop	Ounces Portfolio CAL Herbicide Per Acre	Pound Active Sulfentrazone Per Acre
Row Crops		
Corn	12.0	0.375
Fallow	8.0	0.25
Peanuts	9.6	0.30
Potatoes	8.0	0.25
Soybeans	12.0	0.375
Sugarcane	12.0	0.375
Sunflowers	8.0	0.25
Tobacco	8.0	0.375
Vegetable Crops		
Asparagus	12.0	0.375
Cabbage	12.0	0.375
Dry Beans & Peas	8.0	0.25
Horseradish	8.0	0.25
Oil Crops		
Mint	12.0	0.375

*The total allowed usage per twelve-month period includes all applications made to the field per twelve-month interval. This includes fallow treatments, burndown treatments, planting time and all in-season treatments. The twelve-month period is considered to begin upon the initial Portfolio CAL Herbicide application.

CROP ROTATIONAL RESTRICTIONS (14.0)

The following Table 4 shows the minimum interval in months from the time of the last Portfolio CAL Herbicide application until Portfolio CAL Herbicide treated soil can be replanted to the crops listed. When Portfolio CAL Herbicide is tank mixed with another herbicide, refer to the partner label for recropping instructions, following the directions that are most restrictive.

For all other crops not listed below, the rotational interval is a minimum of 12 months. Some crops have rotational intervals greater than 12 months after a Portfolio CAL Herbicide application due to potential crop injury. A representative bioassay of the field shall be completed with the rotational crop to accurately determine the planned crop's sensitivity to sulfentrazone.

CROP ROTATIONAL RESTRICTIONS**
Table 4

Crop	Interval (Months)
Asparagus	Anytime
Barley	4
Cabbage	Anytime
Canola	24
Cereal Grains (Buckwheat, Oats, Pearl Millet, Proso Millet, Teosinte, Wild Rice)	12
Corn, Field	10
Corn, Pop	18
Corn, Sweet	18
Cotton	18
Dry Shell Peas and Beans	Anytime
Horseradish	Anytime
Limas	Anytime
Mint	Anytime
Peanuts	Anytime
Potatoes	Anytime
Rice	10
Rye	4
Sorghum	10 *
Soybeans	Anytime
Sugar Beets	36
Sugarcane	Anytime
Sunflowers	Anytime
Sweet Potatoes	12
Triticale	4
Tobacco	Anytime
Turf	Anytime
Wheat	4

*Sorghum – 18-month rotation for rates above 8.0 oz/acre
**For all other crops not listed, the rotation interval is a minimum of 12 months.

BAND TREATMENT APPLICATIONS (15.0)

For band treatments, apply the broadcast equivalent rate and volume per acre. To determine these:

Band Width Inches / Row Width Inches	X	Broadcast Rate Per Acre	=	Band Rate
Band Width Inches / Row Width Inches	X	Broadcast Volume Per Acre	=	Band Volume

MIXING AND LOADING INSTRUCTIONS (16.0)

Portfolio CAL Herbicide may be applied alone, or in tank mixtures with other herbicides for the control of additional weed species. Mixtures with some other pesticides have not been tested. Conduct appropriate compatibility tests prior to tank mixing with other pesticides. Follow all precautions and restrictions on the tank mix partner label.

It is important that spray equipment is clean and free of existing pesticide residues before preparing Portfolio CAL Herbicide spray mixtures. Follow the spray tank clean out procedures specified on the label of the product or products previously applied.

For best results fill spray tank with one half of the volume of clean water needed for the field to be treated. Start agitation system. Prepare a slurry of Portfolio CAL Herbicide in a clean container using clean water. Slowly add the Portfolio CAL Herbicide /water slurry to the spray tank. Carefully rinse the slurry container, adding the rinsate to the spray tank. Complete filling the spray tank to the desired level. Continuous spray tank agitation is required at all times to maintain a uniform spray solution.

Make sure Portfolio CAL Herbicide is thoroughly mixed before application or before adding another product to the spray tank.

Use the Portfolio CAL Herbicide spray mixture immediately after mixing. Do not store the sprayer overnight or for any extended period of time with the Portfolio CAL Herbicide spray mixture remaining in the tank.

Do not premix Portfolio CAL Herbicide spray solutions in nurse tanks.

If Portfolio CAL Herbicide is tank mixed with other herbicides, all additional directions, restrictions and precautions for the tank mixture herbicides must be followed.

SPRAYER EQUIPMENT CLEAN-OUT (17.0)

As soon as possible after spraying Portfolio CAL Herbicide and before using sprayer equipment for any other applications, the sprayer must be thoroughly cleaned to avoid potential crop affects using the following procedure. Residues left in mixing equipment, spray tanks, hoses, spray booms and nozzles can cause crop effects if they are not properly cleaned. In addition, users must take appropriate steps to ensure proper equipment clean-out for any other products mixed with Portfolio CAL Herbicide as required on the other product labels. More complete cleaning can be achieved if the spray system is cleaned immediately following the application.

1. Drain sprayer tank, hoses, spray boom and spray nozzles. Use a high-pressure detergent wash to remove physical sediment and residues from the inside of the sprayer tank and thoroughly rinse. Then, thoroughly flush sprayer hoses, spray boom and spray nozzles with a clean water rinse. Remove and clean spray tips and all filters and screens (tank, spray hose and spray tips) separately in the ammonia solution of Step 2.

2. Next, prepare a sprayer cleaning solution by adding three gallons of ammonia (containing at least 3% active) per 100 gallons of clean water. Prepare sufficient cleaning solution to allow the operation of the spray system for a minimum of 15 minutes to thoroughly flush hoses, spray boom and spray nozzles.

3. Convenient and thorough cleaning of the sprayer can be achieved if the ammonia solution or fresh water is left in the spray tank, hoses, spray booms and spray nozzles overnight or during storage.

4. Before using the sprayer, completely drain the sprayer system. Rinse the tank with clean water and flush through the hoses, spray boom, and spray nozzles with clean water. Remove and clean spray tips and all filters and screens (tank, spray hose and spray tip) separately in an ammonia solution.

5. Properly dispose of all cleaning solution and rinsate in accordance with Federal, State, and local regulations and guidelines.

Do not apply sprayer cleaning solutions or rinsate to sensitive crops.

Do not store the sprayer overnight or for any extended period of time with Portfolio CAL Herbicide spray solution remaining in the tank, spray lines, spray boom plumbing, spray nozzles or strainers.

If the sprayer has been stored or idle, purge the spray boom and nozzles with clean water before beginning any application.

Should small quantities of Portfolio CAL Herbicide remain in inadequately cleaned mixing, loading and/or spray equipment, they may be released during subsequent applications potentially causing effects to certain crops and other vegetation. FMC accepts no liability for any effects due to inadequately cleaned equipment.

Do not drain of flush equipment on or near desirable trees or plants.

Do not contaminate any body of water including irrigation water that may be used on other crops.

WEEDS LIST (18.0)

When Portfolio CAL Herbicide is applied in accordance with the General Application information and the specific crop use directions, Portfolio CAL Herbicide applied alone or in recommended tank mixtures will provide control of the following weeds. Refer to the specific crop section.

Table 5

Scientific Name	Scientific Name
Amaranth, livid	*Amaranthus lividus*
Amaranth, Palmer	*Amaranthus palmeri*
Amaranth, Powell	*Amaranthus Powell II*
Amaranth, spiny	*Amaranthus spinosus*
Amaranth, spleen	*Amaranthus dubius*
Anoda, spurred	*Anoda cristata*
Bedstraw, catchweed	*Galium aparine*
Carpetweed	*Mollugo verticillata*
Chickweed, common	*Stellaria media*
Copperleaf, hophornbeam	*Acalypha ostryeafolia*
Copperleaf, Virginia	*Acalypha virginica*
Crabgrass, large	*Digitaria sanguinalis*

Crabgrass, smooth	*Digitaria ischaemum*
Crabgrass, Southern	*Digitaria ciliaris*
Croton, tropic	*Croton glandulosus*
Crownbeard, golden	*Verbesina encelioides*
Cupgrass, wooly	*Erichloa villosa*
Cyperus, hedgehog	*Cyperus compressus*
Daisy, American	*Eclipta alba*
Devilsclaw	*Proboscidea louisiana*
Dock, curly	*Rumex crispus*
Eclipta	*Eclipta prostrata*
Filaree, redstem	*Erodium cicutarium*
Flixweed	*Descurainia sophia*
Galinsoga, hairy	*Galinsoga ciliata*
Goosegrass	*Eleusine indica*
Groundcherry, clammy (seedling)	*Physalis heterophylla*
Groundcherry, cutleaf	*Physalis angulata*
Jimsonweed	*Datura stramonium*
Kochia (ALS and Triazine Resistant)	*Kochia scoparia*
Ladysthumb	*Polygonum persicaria*
Lambsquarters, common	*Chenopodium album*
Lettuce, miners	*Montia perfoliata*
Mallow, common	*Malva neglecta wall r.*
Mayweed, Chamomile	*Anthemis cotula l.*
Milkweed, honeyvine	*Ampelamus albidus*
Morningglory, entireleaf	*Ipomoea hederacea integriuscula*
Morningglory, ivyleaf	*Ipomoea hederacea hederacea*
Morningglory, palmleaf	*Ipomoea wrightii*
Morningglory, purple	*Ipomoea turbinata*
Morningglory, red	*Ipomoea, coccinea L.*
Morningglory, scarlet	*Ipomoea coccinea*
Morningglory, smallflower	*Jacquemontia tamnifolia*
Morningglory, tall	*Ipomoea, purpurea*
Mustard, tumble	*Sisybrium altissimum*
Nightshade, black	*Solanum nigrum*
Nightshade, Eastern black	*Solanum ptycanthum*
Nutsedge, purple	*Cyperus rotundus*
Nutsedge, yellow	*Cyperus esculentus*
Orchardgrass	*Dactylis glomerata*
Panicum, fall	*Panicum dichotomiflorum*
Pigweed, redroot	*Amaranthus retroflexus*
Pigweed, smooth	*Amaranthus hybridus*
Plantain, blackseed	*Plantago rugelii decne*
Plantain, narrow-leaved	*Plantago lanceolata*
Poorjoe	*Diodia teres*
Porophyllum	*Porophyllum rederale*
Poinsettia, wild	*Euphorbia heterophylla*
Purslane, common	*Portulaca oleracea*
Redmaids	*Calandrinia ciliata*
Redweed	*Melochia corchorifolia*
Sedge, annual	*Carex spp.*
Senna, coffee	*Cassia occidentalis*
Sheperdspurse	*Capsella bursa-pastoris*
Sida, prickly	*Sida spinosa*
Sida, Southern	*Sida acuta*
Signalgrass, broadleaf	*Brachiaria platyphylla*
Smartweed, PA (seedling)	*Polygonum pensylvanicum*
Smellmellon	*Cucumis melo*
Starbur, bristly	*Acanthospermum hispidum*
Stinkgrass	*Eragrostis cilianensis*
Toadflax, yellow	*Linaria vulgaris*
Tassleflower, red	*Emilio sonchifolia*
Thistle, Russian	*Salsola kali*
Waterhemp, common	*Amaranthus rudis*
Waterhemp, tall	*Amaranthus tuberculatos*
Waterprimrose, winged	*Ludwigia decurrens*
Witchgrass	*Panicum capillare*

REPLANTING INSTRUCTIONS (19.0)

If initial planting of labeled crops fails to produce a stand, only labeled crops for Portfolio CAL Herbicide or the tank mix partner; whichever is most restrictive, may be planted. Do not retreat field with Portfolio CAL Herbicide or other herbicide containing sulfentrazone. Do not plant treated fields with any crop at intervals that are inconsistent with the Rotational Crop Guidelines on this label. When replanting use minimum soil tillage to preserve the herbicide barrier and achieve maximum weed control.

ROW CROPS

CORN (Field Corn, Seed Corn, Popcorn) (For Use Only with GMO Varieties Tolerant to PPO Herbicides) (20.0)

Table 6

Portfolio CAL Use Rate Table (Corn) Fall, Spring Early Preplant, Preemergence, and Preplant Incorporated Applications			
Broadcast Rate	**Fluid Ounces Portfolio CAL per acre**		
	Soil Texture		
% Organic Matter	**Coarse**	**Medium**	**Fine**
<1.5	3.0 – 4.5	3.0 – 4.5	3.75 – 5.25
1.5-3.0	3.0 – 4.5	3.75 – 6.0	4.5 – 6.75
>3	3.75 – 6.0	4.5 – 6.75	6.0 – 8.0
Refer to the previous information on soil types under the COARSE, MEDIUM, and FINE categories Use higher rates for soils of pH less than 7.0 and lower rates for pH greater than 7.0 within the rate range.			

Preplant (Fall Applications) (20.1)
Portfolio CAL Herbicide may be applied in the fall as a preplant treatment prior to corn planting the following spring.

Portfolio CAL Herbicide can be used alone or in a tank mixture with other herbicides to control susceptible broadleaves, sedges and grasses in corn. Apply Portfolio CAL in conventional tillage or conservation tillage (reduced tillage or no-tillage) cropping systems using rates recommended in the Table 6. Portfolio CAL Herbicide should be applied to the stubble or soil surface and allow moisture from rainfall or snow to move the product into the soil. Do not mechanically incorporate in the fall or spring as this operation can destroy the herbicide barrier allowing weed escapes to occur. Do not apply to frozen soils or existing snow cover to prevent Portfolio CAL Herbicide runoff from rain or snowmelt that may occur following application. Portfolio CAL Herbicide may be tankmixed with other burndown herbicides to control emerged weeds in the fall or residual soil herbicides that are labeled for fall use on corn. Select the correct Portfolio CAL Herbicide use rate for corn from the Table 6 for your soil type and organic matter. Due to the extended period of time between the fall application and corn planting, the use rate of Portfolio CAL Herbicide should be the mid to high rate within the rate range for the appropriate soil type and organic matter.

Early Preplant and Preemergence (Spring Applications) (20.2)
Portfolio CAL Herbicide may be applied preplant on the soil surface in the spring to control weeds in conventional and conservation tillage systems. Portfolio CAL Herbicide can be applied from 45 days prior to planting until 3 days after planting as a preemergence broadcast or banded soil application if corn seedlings have not broken the soil surface and if the seed furrow is completely closed. For preemergence applications 14 to 45 days prior to planting, use the mid to high rate in the appropriate rate range for the soil and organic matter type listed in Table 6. Portfolio CAL Herbicide can be tank mixed with other herbicides labeled for use in corn. To control insect pests such as cutworm or armyworm that may be present, Portfolio CAL Herbicide may be tankmixed with insecticides including Mustang Max or Capture 2EC. If dry conditions persist following preemergence application of Portfolio CAL Herbicide, a shallow incorporation may be needed to activate the herbicide. If weeds are emerged at the time of Portfolio CAL Herbicide application, use a burndown herbicide in conjunction with Portfolio CAL as needed. When planting into soil treated preplant with Portfolio CAL Herbicide, minimize soil disturbance to maintain the herbicide barrier on the soil surface to achieve maximum weed control. Observe all precautions, instructions, and rotational cropping guidelines of each product's label when tank mixing, including all references to potential carryover and crop injury warnings or restrictions.

Preplant Incorporated (20.3)
Portfolio CAL Herbicide may be applied as a Preplant Incorporated treatment in the spring prior to planting in reduced and conventional tillage corn. Portfolio CAL Herbicide should be shallowly incorporated or mixed thoroughly into the soil to a maximum depth of 2 inches using a correctly adjusted implement such as a field cultivator, field finisher or disk harrow. Incorporating Portfolio CAL Herbicide deeper than 2 inches may result in inconsistent weed control. Use the appropriate rate from Table 6 for the soil texture, organic matter, and pH level of the soil. Portfolio CAL Herbicide can be tankmixed with other soil-applied herbicides and insecticides labeled for preplant incorporation in corn. Observe all precautions, instructions, and rotational cropping guidelines of each product's label when tank mixing, including all references to potential carryover and crop injury warnings or restrictions.

Portfolio CAL Herbicide may be applied more than once to the same crop in split or sequential applications to provide season-long control of difficult-to-control existing or late emerging weeds.

Precautions
These Crop Specific Use directions are based upon the interactive effects of Portfolio CAL Herbicide (sulfentrazone) and the primary soil and environmental factors, which affect its activity on various weed species and tolerance among crops. The user is required to observe the instructions and guidance previously presented under General Application Instructions, General Portfolio CAL Herbicide Product Use Rates, Rotational Crop Guidelines, Replanting Instructions, Weed Controlled and any other section of this label pertinent to the anticipated crop use. It is important to note that not all varieties or cultivars of a given crop species have been evaluated under treatment with Portfolio CAL Herbicide. Consult university or extension weed management specialists for additional information on specific local varieties or cultivars and any other pertinent information on Portfolio CAL Herbicide under specific local conditions.

Restrictions
Do not apply more than 12.0 fluid ounces (0.375 pound active) per twelve-month period. The twelve-month period is considered to begin upon the initial Portfolio CAL Herbicide application.

Do not use on soils classified as sand, which have less than 1% organic matter.

Do not apply to frozen soils or existing snow cover to prevent Portfolio CAL Herbicide runoff from rain or snowmelt that may occur following application.

FALLOW OR POST HARVEST BURNDOWN (21.0)

Portfolio CAL Herbicide may be applied in the fall following crop harvest or in existing fallow fields of asparagus, cabbage, corn, dry shell peas and beans, horseradish, limas, mint, peanuts, potatoes, soybeans, sugarcane, sunflowers and tobacco.

Table 7

Portfolio CAL Herbicide Use Rate Table (Fallow or Post Harvest Burndown) Fall and Spring Fallow Applications			
Broadcast Rate	Fluid Ounces Portfolio CAL Herbicide per acre		
	Soil Texture		
% Organic Matter	Coarse	Medium	Fine
<1.5	3.0 – 3.75	3.0 – 4.5	3.75 – 5.25
1.5-3.0	3.75 – 5.25	3.75 – 6.0	4.5 – 6.75
>3	4.5 – 6.0	4.5 – 8.0	5.25 – 8.0
Refer to the previous information on soil types under the COARSE, MEDIUM, and FINE categories Use higher rates for soils of pH less than 7.0 and lower rates for pH greater than 7.0 within the rate range.			

Fall Application (21.1)
Portfolio CAL Herbicide may be applied in the fall following crop harvest or in existing fallow fields to control or suppress weeds the following season. The Portfolio CAL Herbicide Rotational Crop Guidelines in Table 4 must be followed if crops are planted the next season. Portfolio CAL Herbicide should be applied to the harvested crop stubble or soil surface without incorporation. Moisture in the form of rain or snow will move and activate the product. Do not mechanically incorporate in the fall or spring after application because this activity may destroy the herbicide barrier and weed escapes can occur. Do not apply to frozen soils to prevent Portfolio CAL Herbicide runoff from rain or snow that may occur following application. Portfolio CAL Herbicide may be tankmixed with herbicides to control emerged weeds. Sequential applications may be needed depending on weed size. In situations where weed size may interfere with Portfolio CAL Herbicide reaching the soil surface, a separate burndown application prior to the application of Portfolio CAL Herbicide will be required. Use full, recommended rates of burndown herbicides in combination with Portfolio CAL Herbicide, or sequential applications as needed. Higher aerial spray volumes are required when there is a dense weed population or canopy.

Portfolio CAL Herbicide can be tankmixed with other herbicides. Observe all precautions, instructions, and rotational cropping guidelines of each product's label when tank mixing, including all references to potential carryover and crop injury warnings or restrictions.

Spring Preemerge Application (21.2)
Portfolio CAL Herbicide may be applied as a fallow treatment early in the spring provided the application is made prior to weed emergence, and adequate moisture is available to activate the Portfolio CAL Herbicide. Follow the same use rate recommendations and application guidelines listed under the Fall Application section above.

Weeds Controlled
When applied according to directions, Portfolio CAL Herbicide will provide control of:

Filaree, redstem	Pigweed, redroot
Kochia (ALS and Triazine Resistant)	Pigweed, smooth
Lambsquarters, common	Thistle, Russian
Morningglory, ivyleaf	Waterhemp, common
Morningglory, tall	Waterhemp, tall
Nightshade, Eastern Black	

For information on other weeds not listed above, refer to Weeds Controlled section (Table 5) of this label.

Precautions
These Crop Specific Use directions are based upon the interactive effects of Portfolio CAL Herbicide (sulfentrazone) and the primary soil and environmental factors, which affect its activity on various weed species and tolerance among crops. The user is required to observe the instructions and guidance previously presented under General Application Instructions, General Portfolio CAL Herbicide Product Use Rates, Rotational Crop Guidelines, Replanting Instructions, Weed Controlled and any other section of this label pertinent to the anticipated crop use. It is important to note that not all varieties or cultivars of a given crop species have been evaluated under treatment with Portfolio CAL Herbicide. Consult university or extension weed management specialists for additional information on specific local varieties or cultivars and any other pertinent information on Portfolio CAL Herbicide under specific local conditions.

Use Restrictions
Do not apply more than 8.0 fluid ounces (0.25 lb active) per twelve-month period. The twelve-month period is considered to begin upon the initial Portfolio CAL Herbicide application.

Do not use on soils classified as sand, which have less than 1% organic matter.

Do not apply to frozen soils or existing snow cover to prevent Portfolio CAL Herbicide runoff from rain or snowmelt that may occur following application.

PEANUTS (22.0)

Apply Portfolio CAL Herbicide alone or in combination with other registered herbicides for the control of key grass and broadleaf weeds in peanut production. Refer to the information below for specific use directions.

Application Instructions
Portfolio CAL Herbicide may be preplant incorporated (to a depth no greater than 2 inches) up to 14 days prior to planting. Alternatively, Portfolio CAL Herbicide may be applied to the soil surface at planting, or within 12 hours after planting. Incorporation of Portfolio CAL Herbicide deeper than 2 inches can result in adverse crop response and/or inconsistent weed control. Do not use Portfolio CAL Herbicide for "at-crack" type applications or apply to exposed peanut tissue. Such use can result in significant adverse crop response. For optimum performance, a combination of Portfolio CAL Herbicide plus a grass herbicide labeled for peanuts is recommended. Under conditions of exceptionally high weed populations or when weeds not controlled by Portfolio CAL Herbicide are anticipated, the use of suitable post-emergent peanut herbicides is recommended. Broadcast apply the correct Portfolio CAL Herbicide use rate from Table 8 below, in a minimum of 10 gallons of water per acre of finished spray. Banded Portfolio CAL Herbicide application rates must be adjusted in proportion to the broadcast rate.

Portfolio CAL Herbicide Use Rates and Weeds Controlled in Coarse Soils[1]

Table 8
When applied, as directed, at 4.8 fluid ounces (0.15 pound active ingredient) per acre, Portfolio CAL Herbicide will provide:
Control of the listed weeds.

Amaranth, spleen	Jimsonweed
Copperleaf, hophornbeam	Lambsquarters, common
Croton, tropic	Morningglory, entireleaf

Crownbeard, golden	Morningglory, red
Devilsclaw	

When applied, as directed, at 6.4 fluid ounces (0.2 pound active ingredient) per acre, Portfolio CAL Herbicide will provide: Control of the listed weeds.

All the weeds controlled at 4.8 fl. ozs. plus:	
Amaranthus, Palmer	Morningglory, smallflower
Crabgrass, large	Poinsettia, wild [2]
Crabgrass, Southern	Redweed
Eclipta	Senna, coffee
Goosegrass	Signalgrass, broadleaf
Morningglory, pitted	Smartweed, PA (seedling)

When applied, as directed, at 8.0 fluid ounces (0.25 pound active ingredient) per acre, Portfolio CAL Herbicide will provide: Control of the listed weeds.

All the weeds controlled at 6.4 fl. ozs. plus:	
Anoda, spurred	Purslane, common
Cocklebur, common	Sida, prickly
Nutsedge, yellow	Starbur, prickly
Nutsedge, purple [3]	

[1]Use rates are Portfolio CAL Herbicide fluid ounces per acre. Specified weeds are controlled in coarse (sand and loamy sand) soils. Medium and fine soils (sandy loam, clay loam, clay) or soils with organic matter greater than 1.0% should use the next higher rate in Table 8 above. The next higher rate for 8.0 fluid ounces (0.25 lb ai) should not exceed 9.6 fluid ounces (0.3 lb ai) per acre.

[2] Controls initial and several continuing flushes (germinations) of wild poinsettia.

[3] Purple nutsedge activity is based on preplant incorporated applications of Portfolio CAL Herbicide. Pre-emergence surface applications may provide control (>85%) under certain circumstances. Otherwise, purple nutsedge will be partially controlled (71 to 84%).

In soils with pH greater than 7, use the next lower Portfolio CAL Herbicide application rate. Irrigation with alkaline (pH 8 to 9) water can result in adverse crop response. The extent of crop response is dependent on Portfolio CAL Herbicide application rate, soil type (including %OM and pH), timing (after Portfolio CAL application relative to crop emergence), amount and pH of irrigation water. Do not irrigate with water greater than pH 9.

After peanuts are established (4" to 6" across in size), the alkalinity of irrigation water has minimal impact on crop growth.

For information on other weeds not listed above, refer to Weed Controlled section (Table 5) in this label.

Precautions

These Crop Specific Use directions are based upon the interactive effects of Portfolio CAL Herbicide (sulfentrazone) and the primary soil and environmental factors, which affect its activity on various weed species and tolerance among crops. The user is required to observe the instructions and guidance previously presented under General Application Instructions, General Portfolio CAL Herbicide Product Use Rates, Rotational Crop Guidelines, Replanting Instructions, Weed Controlled and any other section of this label pertinent to the anticipated crop use. It is important to note that not all varieties or cultivars of a given crop species have been evaluated under treatment with Portfolio CAL Herbicide. Consult university or extension weed management specialists for additional information on specific local varieties or cultivars and any other pertinent information on Portfolio CAL Herbicide under specific local conditions.

Restrictions

Do not apply more than 9.6 fluid ounces (0.3 lb ai) of Portfolio CAL Herbicide per acre per twelve-month period. The twelve-month period is considered to begin upon the initial Portfolio CAL application.

Do not feed treated peanut forage or peanut hay to livestock.

Do not use on soils classified as sand, which have less than 1% organic matter.

Do not irrigate with water having a pH higher than 9.

Do not apply at cracking time.

POTATOES (23.0)

Table 9

Portfolio CAL Herbicide Use Rate Table (Potatoes)
Preemergence Application

Broadcast Rate	Fluid Ounces Portfolio CAL per acre		
	Soil Texture		
% Organic Matter	Coarse	Medium	Fine
<1.5	3.0 – 4.5	3.0 – 4.5	3.75 – 5.25
1.5-3.0	3.0 – 4.5	3.75 – 6.0	4.5 – 6.0
>3	4.5 – 6.0	5.25 – 6.75	6.0 – 8.0

*Refer to the previous information on soil types under the COARSE, MEDIUM, and FINE categories
Use higher rates for soils of pH less than 7.0 and lower rates for pH greater than 7.0 within the rate range.

Ground and Aerial Applications (23.1)

Apply Portfolio CAL Herbicide by aerial application as a preemergence treatment following planting and after dragoff, but prior to potato emergence. Optimum performance can be achieved if Portfolio CAL Herbicide is applied to the soil surface and either rainfall or overhead irrigation is used to activate the product. If no moisture is received within 7 days following application in areas without irrigation, a shallow incorporation (less than 2 inches) may be needed prior to weed and potato emergence to activate the product. Select the appropriate use rate based on soil texture and organic matter as shown in Table 9 above. For control of emerged weeds at the time of the Portfolio CAL application, an appropriate burndown herbicide and adjuvants labeled for potatoes may be tankmixed with Portfolio CAL to control these weeds. Do not apply Portfolio CAL Herbicide if the potatoes have emerged from the soil as undesirable crop response may occur. Portfolio CAL Herbicide may be tankmixed with other soil-applied herbicides labeled for use in potatoes to improve weed management and increase weed control spectrum.

Apply Portfolio CAL Herbicide in a minimum of 10 gallons of spray by ground application and 5 gallons of spray by air.

Chemigation Applications (23.2)

Portfolio CAL Herbicide may be applied to potatoes through sprinkler irrigation systems including center pivot, lateral move, end tow, solid set or hand move irrigation systems. Apply Portfolio CAL Herbicide prior to potato emergence using sufficient water (0.25 to 0.5 inch per acre) to provide thorough soil surface coverage, but to avoid runoff of irrigation water. Portfolio CAL Herbicide may be applied with other products labeled for chemigation use in potatoes.

It is important to note that irrigation with highly alkaline water (high pH) following a Portfolio CAL Herbicide application may significantly increase the amount of sulfentrazone available in soil solution. Irrigation with water having a pH greater than 7.5 could result in adverse crop response. This response will ultimately depend on initial Portfolio CAL Herbicide application rate, application timing, amount and pH of irrigation water; the sensitivity of the crop and the crop growth stage when irrigated. The risk of adverse crop response will lessen with advances in the crop growth stage.

Weeds Controlled
When applied according to directions, Portfolio CAL Herbicide will provide control of:

Amaranth, Palmer	Nightshade, Eastern black
Filaree, redstem	Pigweed, redroot
Kochia (ALS and Triazine Resistant)	Pigweed, smooth
Lambsquarters, common	Thistle, Russian
Morningglory, ivyleaf	Waterhemp, common
Morningglory, tall	Waterhemp, tall

For information on other weeds not listed above, refer to Weed Controlled section (Table 5) in this label.

Precautions
Potato varieties may vary in their response to herbicide applications. When using Portfolio CAL Herbicide on an untested variety, always determine the crop tolerance before planting. Some potato varieties, including Sangre, Shepody and Snowden, have shown sensitivity to Portfolio CAL Herbicide. Caution should be used when planting these varieties on marginal coarse soils.

These Crop Specific Use directions are based upon the interactive effects of Portfolio CAL Herbicide (sulfentrazone) and the primary soil and environmental factors, which affect its activity on various weed species and tolerance among crops. The user is required to observe the instructions and guidance previously presented under General Application Instructions, General Portfolio CAL Herbicide Product Use Rates, Rotational Crop Guidelines, Replanting Instructions, Weed Controlled and any other section of this label pertinent to the anticipated crop use. It is important to note that not all varieties or cultivars of a given crop species have been evaluated under treatment with Portfolio CAL Herbicide. Consult university or extension weed management specialists for additional information on specific local varieties or cultivars and any other pertinent information on Portfolio CAL Herbicide under specific local conditions.

Restrictions
Do not use on soils classified as sand, which have less than 1% organic matter.

Do not apply Portfolio CAL Herbicide after potato emergence from the soil as undesirable crop response may occur.

Do not apply more than 8.0 fluid ounces (0.25 pound active) per acre per twelve-month period. The twelve-month period is considered to begin upon the initial Portfolio CAL application.

SOYBEANS (24.0)

Table 10

Portfolio CAL Herbicide Use Rate Table (Soybeans)
Fall, Spring Early Preplant, Preemergence, and Preplant Incorporated Applications

Broadcast Rate	Fluid Ounces Portfolio CAL Herbicide per acre		
	Soil Texture		
% Organic Matter	Coarse	Medium	Fine
<1.5	4.5 – 6.0	6.0 – 8.0	8.0
1.5-3	6.0 – 8.0	8.0 – 10.1	10.1
>3	8.0 – 10.1	10.1 – 12.0	12.0
Refer to the previous information on soil types under the COARSE, MEDIUM, and FINE categories Use higher rates for soils of pH less than 7.0 and lower rates for pH greater than 7.0 within the rate range.			

Ground and Aerial Applications (24.1)
Apply Portfolio CAL Herbicide in conventional tillage, conservation tillage, reduced tillage or no-tillage cropping systems using rates recommended in the Portfolio CAL Herbicide Use Rate Table 10. Portfolio CAL Herbicide may be applied with ground or aerial sprayers calibrated to deliver a minimum of 10 gallons of finished spray by ground application and 5 gallons of finished spray by air. Use nozzle types and arrangements that will provide optimum coverage while producing a minimal amount of fine droplets. Apply sufficient spray volume to achieve adequate coverage.

Preplant Incorporated and Preemergence Applications (24.2)
Portfolio CAL Herbicide can be applied prior to planting or up to 3 days after planting. When applications after planting are delayed greater than 3 days after planting, injury may occur if seeds are germinating. Portfolio CAL Herbicide may be applied preemergence or preplant incorporated. For preplant incorporated applications, incorporation must be uniform and no deeper than 2 inches. Improper soil incorporation may result in erratic weed control and/or crop injury. Portfolio CAL Herbicide applied near or after crop emergence may cause severe injury to the crop. Portfolio CAL Herbicide can be applied alone or in combination with other labeled soybean herbicides. Portfolio CAL Herbicide may be followed by labeled postemergence soybean herbicides for increased control of grass and broadleaf weeds. Always follow the most restrictive label when tank mixing. When using Portfolio CAL Herbicide in no-till or minimum till cropping systems, tank mix with an appropriate burndown herbicide for improved control of existing weeds.

Fall Applications (24.3)
Portfolio CAL Herbicide may be applied as a fall treatment to the stubble of harvested crops for the burndown of existing vegetation and preemergence control of labeled weeds the following spring in no-till and conservation tillage production systems. Fall applications of Portfolio CAL Herbicide must be made in weed control programs that include, as needed, spring applications of preplant, preemergence or postemergence herbicides for the following crop season. Portfolio CAL Herbicide can be applied to the stubble of a harvested crop in no-till or to the soil surface of conservation tillage fields after harvest when the sustained soil temperature is 55 degrees F and falling at a soil depth of 4 inches. Apply after September 30 in those areas North of Interstate 90 and after October 15 in those areas North of Interstate 70. Do not apply Portfolio CAL Herbicide as a fall treatment South of Interstate 70. Applications to ridge till production systems must be made after the formation of ridges or bedded.

If weeds are emerged at the time of application, utilize a tank mixture with a suitable burndown herbicide at labeled rates. Fall applied burndown treatments should be made with a minimum of 20 gallons per acre to achieve adequate coverage of the weeds being treated. When making burndown applications to emerged weeds, the addition of adjuvants such as COC or MSO to the spray mixture can be used to enhance the burndown activity of the application.

Weeds Controlled
When Applied according to directions, Portfolio CAL Herbicide will provide control of:

Amaranth, Palmer	Nightshade
Copperleaf, hophornbeam	Pigweed, s
Kochia (ALS and Triazine Resistant)	Sida, prickly
Lambsquarters, common	Thistle, Russian
Morningglory, spp.	Waterhemp, spp.

For information on other weeds not listed above, refer to Weed Controlled section (Table 5) in this label.

Precautions
When applying Portfolio CAL Herbicide with other registered herbicides, refer to specific label information on precautions, instructions, limitations, application methods and timings, and weeds controlled.

Portfolio CAL Herbicide is especially effective against a wide range of economic broadleaf and grass weeds. The same processes that sulfentrazone affects in these weeds can, under certain conditions, be affected in soybeans. These conditions include high pH (7.5 and above), cool weather, prolonged and excessive moisture, seedling diseases, and any other condition, including poor agronomic practices, that are unfavorable to vigorous crop growth. Such effects in soybeans are often observed as stunting and discoloration. The duration of these effects are somewhat dependent on the duration of the adverse growing conditions. These effects lessen and generally diminish with the return to normal growing conditions.

These Crop Specific Use directions are based upon the interactive effects of Portfolio CAL Herbicide (sulfentrazone) and the primary soil and environmental factors, which affect its activity on various weed species and tolerance among crops. The user is required to observe the instructions and guidance previously presented under General Application Instructions, General Portfolio CAL Herbicide Product Use Rates, Rotational Crop Guidelines, Replanting Instructions, Weed Controlled and any other section of this label pertinent to the anticipated crop use. It is important to note that not all varieties or cultivars of a given crop species have been evaluated under treatment with Portfolio CAL Herbicide. Consult university or extension weed management specialists for additional information on specific local varieties or cultivars and any other pertinent information on Portfolio CAL Herbicide under specific local conditions.

Restrictions
Do not apply more than 12.0 fluid ounces (0.375 lbs active) per acre of Portfolio CAL Herbicide per twelve-month period. The twelve-month period is considered to begin upon the initial Portfolio CAL Herbicide application.

Do not use on soils classified as sand, which have less than 1% organic matter.

Do not apply to frozen soils or existing snow cover to prevent Portfolio CAL Herbicide runoff from rain or snowmelt that may occur following application.

Do not apply after crop seed germination.

SUGARCANE (25.0)

Table 11

Portfolio CAL Herbicide Use Rate Table (Sugarcane) Planting Time and Lay-by Applications			
Broadcast Rate	**Fluid Ounces Portfolio CAL Herbicide per acre**		
	Soil Texture		
% Organic Matter	**Coarse**	**Medium**	**Fine**
<1.5	4.5 – 6.0	6.0 – 8.0	8.0
1.5-3	6.0 – 8.3	8.0 – 10.1	10.1
>3	8.0 – 10.1	10.1 – 12.0	12.0
Refer to the previous information on soil types under the COARSE, MEDIUM, and FINE categories Use higher rates for soils of pH less than 7.0 and lower rates for pH greater than 7.0 within the rate range.			

Apply Portfolio CAL Herbicide as a broadcast or banded preemerge soil applied treatment for the control of broadleaf weeds, grasses and sedges in sugarcane. Refer to the Portfolio CAL Herbicide Product Use Rate Section and Table 11 for specific use information.

Planting Time Applications (25.1)
Apply Portfolio CAL Herbicide preemerge to newly planted or ratoon sugarcane. Use the higher rate on clay soils and/or soils with organic matter content higher than 2 percent. Apply either by air in a minimum of 5 gallons of spray per acre or by ground equipment in a minimum of 15 gallons of spray per acre. Portfolio CAL Herbicide may be applied with other herbicides registered for use in sugarcane.

Aerial Applications (25.2)
Portfolio CAL Herbicide may be applied by air in a minimum of 5 gallons of finished spray per acre. Portfolio CAL Herbicide may be applied with other herbicides or insecticides registered for aerial application in sugarcane.

Lay-by Applications (25.3)
Apply Portfolio CAL Herbicide as a directed spray to sugarcane at lay-by timing. Use the higher rate on clay soils and/or soils with organic matter content higher than 2 percent. Apply as a directed spray with ground equipment in a minimum of 15 gallons of spray per acre. Portfolio CAL Herbicide may be applied with other herbicides registered for use in sugarcane.

Weeds Controlled
When applied according to directions, Portfolio CAL Herbicide will provide control of:

Morningglory, entireleaf	Morningglory, tall
Morningglory, ivyleaf	Pigweed, red root
Morningglory, red	Nutsedge, yellow

For information on other weeds not listed above, refer to Weed Controlled section (Table 5) in this label.

Precautions
These Crop Specific Use directions are based upon the interactive effects of Portfolio CAL Herbicide (sulfentrazone) and the primary soil and environmental factors, which affect its activity on various weed species and tolerance among crops. The user is required to observe the instructions and guidance previously presented under General Application Instructions, General Portfolio CAL Herbicide Product Use Rates, Rotational Crop Guidelines, Replanting Instructions, Weed Controlled and any other section of this label pertinent to the anticipated crop use. It is important to note that not all varieties or cultivars of a given crop species have been evaluated under treatment with Portfolio CAL Herbicide. Consult university or extension weed management specialists for additional information on specific local varieties or cultivars and any other pertinent information on Portfolio CAL Herbicide under specific local conditions.

Restrictions
Do not apply within 120 days of harvest.

Do not use on soils classified as sand, which have less than 1% organic matter.

Do not allow spray to contact crop leaves.

Do not apply more than 12.0 fluid ounces (0.375 lbs active) per acre of Portfolio CAL Herbicide per acre per twelve-month period. The twelve-month period is considered to begin upon the initial Portfolio CAL Herbicide application.

SUNFLOWERS (26.0)

Table 12

Portfolio CAL Herbicide Use Rate Table (Sunflowers) Fall, Early Spring Preplant, Preemergence, and Preplant Incorporated Applications			
Broadcast Rate	**Fluid Ounces Portfolio CAL Herbicide per acre**		
	Soil Texture		
% Organic Matter	**Coarse**	**Medium**	**Fine**
<1.5	3.0 - 3.75	3.0 – 4.5	3.75 – 5.25
1.5-3.0	3.0 – 4.5	3.75 – 6.0	4.5 – 6.75
>3	3.75 – 6.0	4.5 – 6.75	6.0 – 8.0
Refer to the previous information on soil types under the COARSE, MEDIUM, and FINE categories Use higher rates for soils of pH less than 7.0 and lower rates for pH greater than 7.0 within the rate range.			

Fall Applications (26.1)
Portfolio CAL Herbicide may be applied in the fall as a preplant treatment to control or suppress weeds prior to planting sunflowers the following spring. Portfolio CAL Herbicide should be applied to the stubble or soil surface and allow moisture from rainfall or snow to move the product into the soil. Do not mechanically incorporate in the fall or spring as this can destroy the herbicide barrier and allowing weed escapes to occur. Do not apply to frozen soils or to existing snow cover to prevent Portfolio CAL Herbicide runoff from rain or snow melt that may occur following application. Portfolio CAL Herbicide may be tank mixed with other residual soil herbicides that are labeled for fall use on sunflowers. If weeds are emerged at the time of Portfolio CAL Herbicide application, use a burndown herbicide such as glyphosate or paraquat at the full-labeled rate in combination with Portfolio CAL Herbicide or split application as needed. Select the appropriate rate from Table 12 above within the correct soil type and organic matter range. When applying Portfolio CAL Herbicide in the fall, use a mid to high rate within the rate range for the appropriate soil type and organic matter.

Early Preplant and Preemergence (Spring Applications) (26.2)
Portfolio CAL Herbicide may be applied preplant on the soil surface in the spring to control weeds in sunflowers. Portfolio CAL Herbicide can be applied early preplant prior to planting up to 3 days after planting as a preemerge soil application if seedlings have not broken the soil surface and if the seed furrow is completely closed. For preemerge applications greater than 3 weeks prior to planting, use the high rate within the appropriate rate range for the soil and organic matter type listed in the use rate chart above (Table 12). Portfolio CAL Herbicide can be tank mixed with other preemerge herbicides labeled for sunflower use. If dry conditions persist following preemerge application of Portfolio CAL Herbicide, a shallow incorporation may be needed to incorporate and activate the herbicide. If weeds are emerged at the time of Portfolio CAL Herbicide application, use a burndown herbicide at the full-labeled rate in combination with Portfolio CAL Herbicide or split application as needed.

Preplant Incorporated (PPI) (26.3)
Portfolio CAL Herbicide may be applied as a Preplant Incorporated treatment in the spring prior to planting in reduced and conventional tillage sunflowers. Portfolio CAL Herbicide should be shallowly incorporated in the soil no deeper than 2 inches. Incorporating Portfolio CAL Herbicide deeper than 2 inches can result in inconsistent weed control. Use the appropriate rate from Table 9 above for the soil texture, organic matter, and pH level. Portfolio CAL Herbicide can be tankmixed with other soil-applied herbicides labeled for preplant incorporation in sunflowers.

Weeds Controlled
When applied according to directions, Portfolio CAL Herbicide will provide control of:

Amaranth, Palmer	Pigweed, red root
Filaree, redstem	Pigweed, smooth
Kochia (ALS and Triazine Resistant)	Sida, prickly
Lambsquarters, common	Thistle, Russian
Morningglory, ivyleaf	Waterhemp, common
Morningglory, tall	Waterhemp, tall
Nightshade, Eastern black	

For information on other weeds not listed above, refer to Weed Controlled section (Table 5) in this label.

Precautions
When applying Portfolio CAL Herbicide to coarse textured soils, it is recommended that growers allow a minimum of 7-14 days from application to planting. Best results are achieved with Portfolio CAL Herbicide when applications are made early preplant and greater than 14 days before planting.

Some adverse crop response may occur on coarse textured soils with low organic matter (less than 1.5%) and pH of 7.8 or higher, or on highly eroded soils, or in areas of calcareous outcroppings. Portfolio CAL Herbicide use rates should be reduced in those areas. Inadequate seed furrow closure or shallow planting (less than 1.0 inch) may result in undesirable crop response. As expected, poor growing conditions such as excessive moisture, low temperatures, soil compaction and diseases may also cause undesirable crop response.

These Crop Specific Use directions are based upon the interactive effects of Portfolio CAL Herbicide (sulfentrazone) and the primary soil and environmental factors, which affect its activity on various weed species and tolerance among crops. The user is required to observe the instructions and guidance previously presented under General Application Instructions, General Portfolio CAL Herbicide Product Use Rates, Rotational Crop Guidelines, Replanting Instructions, Weed Controlled and any other section of this label pertinent to the anticipated crop use. It is important to note that not all varieties or cultivars of a given crop species have been evaluated under treatment with Portfolio CAL Herbicide. Consult university or extension weed management specialists for additional information on specific local varieties or cultivars and any other pertinent information on Portfolio CAL Herbicide under specific local conditions.

Restrictions
Do not apply more than 8.0 fluid ounces (0.25 pound active) of Portfolio CAL Herbicide per twelve-month period to sunflowers. The twelve-month period is considered to begin upon the initial Portfolio CAL Herbicide application.

Do not apply to frozen soils or existing snow cover to prevent Portfolio CAL Herbicide runoff from rain or snowmelt that may occur following application.

Do not use on soils classified as sand, which have less than 1% organic matter.
Do not incorporate greater than 2 inches deep.

TOBACCO (Burley, Flue-Cured and [illegible]k) (27.0)

Table 13

Portfolio CAL Herbicide Use Rate Table (Tobacco) Preemergence and Preplant Incorporated Applications			
Broadcast Rate	**Fluid Ounces Portfolio CAL per acre**		
	Soil Texture		
% Organic Matter	**Coarse**	**Medium**	**Fine**
<1.5	4.5 – 6.0	6.0 – 8.0	8.0
1.5-3	6.0 – 8.0	8.0 – 10.1	10.1
>3	8.0 – 10.1	10.1 – 12.0	12.0
Refer to the previous information on soil types under the COARSE, MEDIUM, and FINE categories Use higher rates for soils of pH less than 7.0 and lower rates for pH greater than 7.0 within the rate range.			

Portfolio CAL Herbicide may be surface applied or preplant incorporated (to a depth no greater than 2 inches) from 14 days to 12 hours days prior to transplanting tobacco. Incorporating Portfolio CAL Herbicide deeper than 2 inches can result in inconsistent weed control.

Broadcast apply the appropriate Portfolio CAL Herbicide rate from Table 14 above, in a minimum of 10 gallons per acre of water, to the soil prior to transplanting.

Non-Bedded (Fields where raised beds are NOT formed prior to transplanting) (27.1)
Perform all accepted cultural practices for land preparation, fertilizer/fungicide incorporation, etc. prior to the application of Portfolio CAL Herbicide. Once the field has been prepared for planting, Portfolio CAL Herbicide may be surface applied or lightly preplant incorporated from 14 days to 12 hours prior to transplanting.

If Portfolio CAL Herbicide is surface applied and it is necessary to remove equipment tracks from the field after application but prior to transplanting, any light finishing equipment may be used providing the soil is not disturbed to a depth greater than 2 inches.

If timely cultivations are not performed following a pre-transplant surface application, reduced/unacceptable weed control may occur in the drill.

Bedded (Fields where raised beds ARE formed PRIOR to transplanting) (27.2)
Apply Portfolio CAL Herbicide to formed beds as a surface application from 14 days to 12 hours prior to transplanting. If it is customary to drag/knock down beds prior to transplanting, this procedure must be performed prior to the Portfolio CAL Herbicide application.

When incorporating prior to bedding, Portfolio CAL Herbicide must be thoroughly and uniformly incorporated to a depth no greater than 2 inches to avoid concentrating Portfolio CAL Herbicide in the bed.

If initial transplanting fails to produce a uniform stand, tobacco may be replanted. DO NOT re-treat field with a second application of Portfolio CAL Herbicide, or any other herbicide containing sulfentrazone. DO NOT re-bed. Re-transplant into previously formed, treated beds.

For broad spectrum and optimum grass weed control a grass herbicide application will be required.

Weeds Controlled
When Applied according to directions, Portfolio CAL Herbicide will provide control of:

Amaranthus, livid	Pigweed, redroot
Filaree, redstem	Pigweed, smooth
Galinsoga, hairy	Sida, prickly
Lambsquarters, common	Signalgrass, broadleaf
Morningglory, ivyleaf	Smartweed, Pennsylvania
Morningglory, tall	

For information on other weeds not listed above, refer to Weed Controlled section (Table 5) in this label.

Precautions
Poor agronomic practices, unfavorable pH soils, diseases, cold weather, excessive moisture, drought or other conditions unfavorable to normal plant growth may adversely effect the growth of tobacco transplants. Weakened transplants may be more susceptible to herbicide response and diseases, particularly under poor drainage or compacted soil conditions or when the soil has been saturated for long periods of time. Contact your State Agricultural Extension Service Specialist for consultation as to the agronomic recommendations suited for your tobacco varieties and local conditions. Temporary stunting of tobacco may occur if transplants are set too shallowly, or if heavy rainfall occurs immediately following transplanting. Splashing of treated soil onto tobacco leaves may cause some localized and inconsequential necrosis. Use sound transplanting practices that insure treated soil will not wash or crust over tobacco plants.

These Crop Specific Use directions are based upon the interactive effects of Portfolio CAL (sulfentrazone) and the primary soil and environmental factors, which affect its activity on various weed species and tolerance among crops. The user is required to observe the instructions and guidance previously presented under General Application Instructions, General Portfolio CAL Product Use Rates, Rotational Crop Guidelines, Replanting Instructions, Weed Controlled and any other section of this label pertinent to the anticipated crop use. It is important to note that not all varieties or cultivars of a given crop species have been evaluated under treatment with Portfolio CAL Herbicide. Consult university or extension weed management specialists for additional information on specific local varieties or cultivars and any other pertinent information on Portfolio CAL Herbicide under specific local conditions.

Restrictions
Do not use on Shade Grown Tobacco

Do not apply Portfolio CAL Herbicide to soils classified as sands containing less than 1% organic matter.

Do not use Portfolio CAL Herbicide in tobacco seeding beds or greenhouses.

Do not apply Portfolio CAL Herbicide post-transplant as unacceptable injury may occur.

Do not perform tillage practices that concentrate Portfolio CAL Herbicide into the bed or crop injury may occur.

Do not apply more than 12.0 fluid ounces (0.375 lbs active) per acre of Portfolio CAL Herbicide per acre per twelve-month period. The twelve-month period is considered to begin upon the initial Portfolio CAL application.

Do not incorporate greater than 2 inches deep.

VEGETABLE CROPS

Before applying Portfolio CAL Herbicide to vegetable crops, users, producers, and/or applicators must read and follow the information presented in the Conditions of Sale and Limitation of Warranty and Liability section on page 3 of this label.

ASPARAGUS (28.0)

Table 14

Portfolio CAL Herbicide Use Rate Table (Asparagus) Spring Preemergence Applications	
Broadcast Rate	**Fluid Ounces Portfolio CAL Herbicide per acre**
	Soil Texture

% Organic Matter	Coarse	Medium	Fine
<1.5	4.5 – 6.0	6.0 – 8.0	8.0
1.5-3	6.0 – 8.0	8.0 – 10.1	10.1
>3.0	8.0 – 10.1	10.1 – 12.0	12.0
Refer to the use rate information on soil types under the COARSE, MEDIUM, and FINE categories. Use higher rates for soils of pH less than 7.0 and lower rates for pH greater than 7.0 within the rate range.			

Apply Portfolio CAL Herbicide as a broadcast treatment to crowns established for one or more years.

Apply in the spring before the crop and weeds emerge. Portfolio CAL Herbicide should be applied at 4.5 to 12 fluid ounces (0.141 to 0.375 pound active) per acre in 10 to 40 gallons of finished spray per acre. Portfolio CAL Herbicide may be applied with other pesticides registered for use with asparagus.

Weeds Controlled
When Applied according to directions, Portfolio CAL Herbicide will provide control of :

Amaranth, Palmer	Nightshade, Eastern black
Galinsoga, hairy	Nutsedge, yellow
Lambsquarters, common	Pigweed, redroot
Morningglory, ivyleaf	Pigweed, smooth

For information on other weeds not listed above, refer to Weed Controlled section (Table 5) in this label.

Precautions
These Crop Specific Use directions are based upon the interactive effects of Portfolio CAL Herbicide (sulfentrazone) and the primary soil and environmental factors, which affect its activity on various weed species and tolerance among crops. The user is required to observe the instructions and guidance previously presented under General Application Instructions, General Portfolio CAL Herbicide Product Use Rates, Rotational Crop Guidelines, Replanting Instructions, Weed Controlled and any other section of this label pertinent to the anticipated crop use. It is important to note that not all varieties or cultivars of a given crop species have been evaluated under treatment with Portfolio CAL Herbicide. Consult university or extension weed management specialists for additional information on specific local varieties or cultivars and any other pertinent information on Portfolio CAL Herbicide under specific local conditions.

Restrictions
Do not apply within 14 days prior to harvest.

Do not apply more than 12.0 fluid ounces (0.375 pound active) per acre per 12-month period.

Do not make more than one Portfolio CAL Herbicide application per acre per 12-month period. The twelve-month period is considered to begin upon the initial Portfolio CAL Herbicide application.

Do not use on soils classified as sand, which have less than 1% organic matter.

CABBAGE (Transplanted Only) (29.0)

Table 15

Portfolio CAL Herbicide Use Rate Table (Cabbage) Fall or Spring Early Preplant, Preemergence, and Preplant Incorporated Applications			
Broadcast Rate	**Fluid Ounces Portfolio CAL Herbicide per acre**		
	Soil Texture		
% Organic Matter	**Coarse**	**Medium**	**Fine**
<1.5%	2.25 – 3.0	3.0 – 4.5	3.0 – 6.0
1.5-3.0 %	3.0 – 6.0	6.0 – 9.0	6.0 – 9.0
>3.0 %	6.0 – 9.0	6.0 – 12.0	6.0 – 12.0
Refer to the previous information on soil types under the COARSE, MEDIUM, and FINE categories. Use higher rates for soils of pH less than 7.0 and lower rates for pH greater than 7.0 within the rate range.			

Early Preplant (Fall Application or Spring Application) (29.1)
Portfolio CAL Herbicide may be applied in the fall or spring preceding the growing season to control weeds prior to or up to the planting or transplanting of cabbage. Portfolio CAL Herbicide may be applied in the spring from 60 days prior to planting up to planting time. Portfolio CAL Herbicide should be applied to the harvested crop stubble or soil surface without incorporation. Moisture in the form of rain or snow will move and activate the product into the soil. Do not mechanically incorporate in the fall or spring after application as this may destroy the herbicide barrier and weed escapes can occur. Do not apply to frozen soils to prevent Portfolio CAL Herbicide runoff from rain or snow that may occur following application. Portfolio CAL Herbicide may be tankmixed with other burndown herbicides to control emerged weeds in the fall or spring or with residual soil herbicides that are labeled for fall use on cabbage. Use the full, recommended rates of burndown herbicides in combination with Portfolio CAL Herbicide, or split applications as needed. Observe all precautions, instructions, and rotational cropping guidelines of each product's label when tank mixing, including all references to potential carryover and crop injury warnings or restrictions.

Preplant Incorporated (PPI) (29.2)
Portfolio CAL Herbicide may be applied as a preplant incorporated treatment in the spring prior to transplanting of cabbage. Do not incorporate to depths greater than 2 inches. Portfolio CAL Herbicide can be tankmixed with other burndown or soil-applied herbicides labeled for use in cabbage. Use the full, recommended rates of burndown herbicides or split applications as needed. Observe all precautions, instructions and rotational cropping guidelines of each product's label when tank mixing including all references to potential carryover and crop injury warnings or restrictions.

Transplant Cabbage (29.3)
Portfolio CAL Herbicide may be applied pre-emergence as a broadcast or banded treatment to transplanted cabbage only. Applications should be made broadcast or banded treatment prior to transplanting. Portfolio CAL Herbicide may be applied as a banded treatment into the row middles within 72 hours after transplanting.

Weeds Controlled
When Applied according to directions, Portfolio CAL Herbicide will provide control of:

Galinsoga, hairy	Waterhemp, common
Lambsquarters, common	Waterhemp, tall

Pigweed, redroot	

For information on other weeds not listed above, refer to Weed Controlled section (Table 5) in this label.

Precautions
These Crop Specific Use directions are based upon the interactive effects of Portfolio CAL Herbicide (sulfentrazone) and the primary soil and environmental factors, which affect its activity on various weed species and tolerance among crops. The user is required to observe the instructions and guidance previously presented under General Application Instructions, General Portfolio CAL Herbicide Product Use Rates, Rotational Crop Guidelines, Replanting Instructions, Weed Controlled and any other section of this label pertinent to the anticipated crop use. It is important to note that not all varieties or cultivars of a given crop species have been evaluated under treatment with Portfolio CAL Herbicide. Consult university or extension weed management specialists for additional information on specific local varieties or cultivars and any other pertinent information on Portfolio CAL Herbicide under specific local conditions.

Restrictions
Do not apply more than 12 fluid ounces (0.375 pound active) per acre of Portfolio CAL Herbicide per application or per twelve-month period. The twelve-month period is considered to begin upon the initial Portfolio CAL Herbicide application.

Do not use on soils classified as sand, which have less than 1% organic matter.

Do not incorporate to depths greater than 2 inches.

DRY SHELLED BEANS AND PEAS (30.0)

Dried cultivars of bean (*Lupinus*); bean (*Phaseolus*)(includes field bean, kidney bean, lima bean (dry), navy bean, pinto bean, tepary bean); bean (*Vigna*) (includes adzuki bean, blackeyed pea, catjang, cowpea, crowder pea moth bean, lentil, mung bean, rice bean, southern pea, urd bean); broad bean (dry); chickpea; guar; lab lab bean; pea (*Pisum*) (includes field pea) and pigeon pea.

Table 16

Portfolio CAL Use Rate Table (Dry Shelled Beans Peas) Fall or Spring Early Preplant, Preemergence, and Preplant Incorporated Applications			
Broadcast Rate	**Fluid Ounces Portfolio CAL per acre**		
	Soil Texture		
% Organic Matter	**Coarse**	**Medium**	**Fine**
<1.5%	2.25 – 3.0	3.0 – 4.5	3.0 – 4.5
1.5-3.0 %	3.0 – 4.5.0	3.75 – 6.0	4.5 – 6.0
>3.0 %	3.75 – 6.0	4.5 – 6.75	5.25 – 8.0
Refer to the previous information on soil types under the COARSE, MEDIUM, and FINE categories Use higher rates for soils of pH less than 7.0 and lower rates for pH greater than 7.0 within the rate range.			

Early Preplant and Fall Applications (30.1)
Portfolio CAL Herbicide may be applied in the fall as a preplant treatment to control or suppress weeds prior to planting the following spring. Portfolio CAL Herbicide should be applied to the stubble or soil surface and allow moisture from rainfall or snow to move the product into the soil. Do not mechanically incorporate in the fall or spring as this can destroy the herbicide barrier and weed escapes can occur. Do not apply to frozen soils or to existing snow cover to prevent Portfolio CAL Herbicide runoff from rain or snow melt that may occur following application. Portfolio CAL Herbicide may be tank mixed with other residual soil herbicides that are labeled for fall use on dry bean and dry peas. If weeds are emerged at the time of Portfolio CAL Herbicide application, use a burndown Herbicide such as glyphosate or paraquat at the full-labeled rate in combination with Portfolio CAL Herbicide or split application as needed. Select the appropriate rate from Table 16 above within the correct soil type and organic matter range. When applying Portfolio CAL Herbicide in the fall, use a mid to high rate within the rate range for the appropriate soil type and organic matter.

Early Preplant and Preemergence (Spring Applications) (30.2)
Portfolio CAL Herbicide may be applied preplant on the soil surface in the spring to control weeds in dry bean and dry peas. Portfolio CAL Herbicide can be applied early preplant prior to planting up to 3 days after planting as a preemerge soil application if seedlings have not broken the soil surface and if the seed furrow is completely closed. For preemerge applications greater than 3 weeks prior to planting, use the high rate within the appropriate rate range for the soil and organic matter type listed in the use rate chart above Table16. Portfolio CAL Herbicide can be tank mixed with other preemerge herbicides labeled for dry bean and dry peas use. If dry conditions persist following preemerge application of Portfolio CAL Herbicide, a shallow incorporation may be needed to incorporate and activate the herbicide. If weeds are emerged at the time of Portfolio CAL Herbicide application, use a burndown herbicide at the full-labeled rate in combination with Portfolio CAL Herbicide or split application as needed.

Preplant Incorporated (PPI) (30.3)
Portfolio CAL Herbicide may be applied as a Preplant Incorporated treatment in the spring prior to planting in reduced and conventional tillage dry bean and dry pea. Do not incorporate to depths greater than 2 inches. Portfolio CAL Herbicide use rates for PPI applications are similar to those used in preplant and preemergence applications. Portfolio CAL Herbicide can be tankmixed with other burndown or soil-applied herbicides labeled for use in dry bean or dry pea. Use the full, recommended rates of burndown herbicides, or split applications as needed. Observe all precautions, instructions, and rotational cropping guidelines of each product's label when tank mixing, including all references to potential carryover and crop injury warnings or restrictions.

Weeds Controlled
When applied according to directions, Portfolio CAL Herbicide will provide control of:

Amaranth, Palmer	Pigweed, red root
Filaree, redstem	Pigweed, smooth
Kochia (ALS and Triazine Resistant)	Sida, prickly
Lambsquarters, common	Thistle, Russian
Morningglory, ivyleaf	Waterhemp, common
Morningglory, tall	Waterhemp, tall
Nightshade, Eastern black	

For information on other weeds not listed above, refer to Weed Controlled section (Table 5) in this label.

Precautions
When applying Portfolio CAL Herbicide to coarse textured soils, it is recommended that growers allow a minimum of 7-14 days from application to planting. Best results are achieved with Portfolio CAL Herbicide when applications are made early preplant and greater than 14 days before planting. Under extended periods of dry weather, adequate weed control may not be achieved

Some adverse crop response may occur on coarse textured soils with low organic matter (less than 1.5%) and pH of 7.8 or higher, or on highly eroded soils, or in areas of calcareous outcroppings. Portfolio CAL Herbicide use rates should be reduced in those areas. Inadequate seed furrow closure or shallow planting (less than 1.0 inch) may result in undesirable crop response. As expected, poor growing conditions such as excessive moisture, low temperatures, soil compaction and diseases may also cause undesirable crop response.

These Crop Specific Use directions are based upon the interactive effects of Portfolio CAL Herbicide (sulfentrazone) and the primary soil and environmental factors, which affect its activity on various weed species and tolerance among crops. The user is required to observe the instructions and guidance previously presented under General Application Instructions, General Portfolio CAL Herbicide Product Use Rates, Rotational Crop Guidelines, Replanting Instructions, Weed Controlled and any other section of this label pertinent to the anticipated crop use. It is important to note that not all varieties or cultivars of a given crop species have been evaluated under treatment with Portfolio CAL Herbicide. Consult university or extension weed management specialists for additional information on specific local varieties or cultivars and any other pertinent information on Portfolio CAL Herbicide under specific local conditions.

Restrictions
Do not apply more than 8.0 fluid ounces (0.25 pound active) total per twelve-month period. The twelve-month period is considered to begin upon the initial Portfolio CAL application.

Do not apply after crop emerges, or if the seedling is close to the soil surface.

Do not incorporate to depths greater than 2 inches.

Do not apply to frozen soils or to existing snow cover to prevent Portfolio CAL Herbicide runoff from rain or snow melt that may occur following application.

Do not use on soils classified as sand, which have less than 1% organic matter.

Do not use on soils classified as sand, which have less than 1% organic matter.

HORSERADISH (31.0)

Table 17

Portfolio CAL Herbicide Use Rate Table (Horseradish) Fall or Spring Early Preplant, Preemergence, and Preplant Incorporated Applications			
Broadcast Rate	**Fluid Ounces Portfolio CAL Herbicide per acre**		
	Soil Texture		
% Organic Matter	**Coarse**	**Medium**	**Fine**
<1.5%	2.25 – 4.5	3.0 – 4.5	3.0 – 4.5
1.5-3.0 %	4.5 – 6.0	6.0 – 8.0	6.0 – 8.0
>3.0 %	6.0 – 7.5	6.0 – 8.0	6.0 – 8.0
Refer to the previous information on soil types under the COARSE, MEDIUM, and FINE categories Use higher rates for soils of pH less than 7.0 and lower rates for pH greater than 7.0 within the rate range.			

Portfolio CAL Herbicide may be applied as an preplant preemerge or preplant incorporated treatment by ground in a minimum of 15 gallons of finished spray.

Early Preplant (Fall Application or Spring Application) (31.1)
Portfolio CAL Herbicide may be applied in the fall or spring preceding the growing season to control or suppress weeds prior to or up to the planting of horseradish. Portfolio CAL Herbicide may be applied in the spring from 60 days prior to planting up to planting. Portfolio CAL Herbicide should be applied to the harvested crop stubble or soil surface without incorporation. Moisture in the form of rain or snow will move and activate the product into the soil. Do not mechanically incorporate in the fall or spring after application as this may destroy the herbicide barrier and weed escapes may occur. Do not apply to frozen soils to prevent Portfolio CAL Herbicide runoff from rain or snow that may occur following application. Portfolio CAL Herbicide may be tankmixed with other burndown herbicides to control emerged weeds in the fall or spring or with residual soil herbicides that are labeled for use on horseradish. Use full, recommended rates of burndown herbicides in combination with Portfolio CAL Herbicide, or split applications as needed. Observe all precautions, instructions, and rotational cropping guidelines of each product label when tank mixing, including all references to potential carryover and crop injury warnings or restrictions.

Preplant Incorporated (PPI) (31.2)
Portfolio CAL Herbicide may be applied as a preplant incorporated treatment in the spring prior to planting of horseradish. Do not incorporate to depths greater than 2 inches. Portfolio CAL Herbicide can be tankmixed with other burndown or soil-applied herbicides labeled for use on horseradish. Use the full, recommended rates of burndown herbicides or split applications as needed. Observe all precautions, instructions and rotational cropping guidelines of each product's label when tank mixing including all references to potential carryover and crop injury warnings or restrictions.

Pre-Emergence (PRE) (31.3)
Portfolio CAL Herbicide may be applied pre-emergence as a broadcast or banded treatment on horseradish. Applications should be made broadcast prior to planting, broadcast soon after planting but at least 5 days before crop emergence. Portfolio CAL Herbicide may be applied as a banded treatment into the row middles after crop emergence. Use the higher Portfolio CAL Herbicide rates on clay soils and/or soils with greater than 1% organic matter. Portfolio CAL Herbicide may be applied with other pesticides registered for use on horseradish.

Weeds Controlled
When applied according to directions, Portfolio CAL Herbicide will provide control of:

Lambsquarters, common	Pigweed, redroot
Morningglory, ivyleaf	Waterhemp, common
Nutsedge, yellow	Waterhemp, tall

For information on other weeds not listed above, refer to Weed Controlled section (Table 5) in this label.

Precautions
These Crop Specific Use directions are based upon the interactive effects of Portfolio CAL Herbicide (sulfentrazone) and the primary soil and environmental factors, which affect its activity on various weed species and tolerance among crops. The user is required to observe the instructions and guidance previously presented under General Application Instructions, General Portfolio CAL Herbicide Product Use Rates, Rotational Crop Guidelines, Replanting Instructions, Weed Controlled and any other section of this label pertinent to the anticipated crop use. It is important to note that not all varieties or cultivars of a given crop species have been evaluated under treatment with Portfolio CAL Herbicide. Consult university or extension weed management specialists for additional information on specific local varieties or cultivars and any other pertinent information on Portfolio CAL Herbicide under specific local conditions.

Restrictions
Do not apply more than 8.0 fluid ounces (0.25 pound active) per acre of Portfolio CAL Herbicide per application or per twelve-month period. The twelve-month period is considered to begin upon the initial Portfolio CAL Herbicide application.

Do not apply directly on the crop after the crop emerges or if the seedling sprouts are close to the soil surface.

Do not use on soils classified as sand, which have less than 1% organic matter.

Do not incorporate to depths greater than 2 inches.

OIL CROPS

MINT (32.0)

Table 24

Portfolio CAL Herbicide Use Rate Table (Mint) For Dormant and New Planting Applications			
Broadcast Rate	**Fluid Ounces Portfolio CAL Herbicide per acre**		
	Soil Texture		
% Organic Matter	**Coarse**	**Medium**	**Fine**
<1.5%	4.5 – 6.0	6.0 – 8.0	8.0
1.5 - 3.0 %	6.0 – 8.0	8.0 – 10.1	10.1
>3.0 %	8.0 – 10.1	10.1 – 12.0	12.0
Refer to the previous information on soil types under the COARSE, MEDIUM, and FINE categories Use higher rates for soils of pH less than 7.0 and lower rates for pH greater than 7.0 within the rate range.			

Dormant Applications (32.1)

Apply Portfolio CAL Herbicide to established stands of dormant mint after post harvest and/or spring land cultivation has been completed and before emergence of new mint growth.

Split applications of Portfolio CAL Herbicide may be used for preemergence sequential control of winter annuals and summer annuals. Fall applications must be applied after post harvest cultivation has been completed and spring application made after spring cultivation has been completed and before emergence of new mint growth.

Apply Portfolio CAL Herbicide in tank-mixtures with a registered burndown herbicide to control emerged weeds at the time of application. A surfactant is recommended with these tank mixtures to improve control of the emerged weeds.

Portfolio CAL Herbicide may also be applied in tank mixtures with other products registered for use in mint.

New Planting Applications (32.2)

Portfolio CAL Herbicide may be applied to new mint plantings preemergence to the weeds and mint. The rate of application should be reduced approximately twenty five percent of the rate recommended for established plantings for particular soil characteristics. Refer to Portfolio CAL Herbicide Use Rate Table (Table 24) for the appropriate use rate for the soil type and organic matter content. The higher rates in the range are recommended for soils of pH less than 7.0.

Weeds Controlled

When Applied according to directions, Portfolio CAL Herbicide will provide control of:

Amaranth, Powell	Nutsedge, yellow
Bedstraw, catchweed	Pigweed, redroot
Chamomile, mayweed	Sheperdspurse
Kochia (ALS and Triazine Resistant)	Toadflax, yellow
Lambsquarters, common	Thistle, Russian
Morningglory, ivyleaf	Waterhemp, common
Nightshade, Eastern black	Waterhemp, tall

For information on other weeds not listed above, refer to Weed Controlled section (Table 5) in this label.

Precautions

Applications made to mint that has emerged will result in severe injury to exposed plant tissue.

Applications are recommended only to healthy mint fields. Applications to mint under stress from disease, pests and cultural or environmental conditions may result in crop injury.

Moisture in the form of rainfall or overhead irrigation is required after application to activate the herbicide

These Crop Specific Use directions are based upon the interactive effects of Portfolio CAL Herbicide (sulfentrazone) and the primary soil and environmental factors, which affect its activity on various weed species and tolerance among crops. The user is required to observe the instructions and guidance previously presented under General Application Instructions, General Portfolio CAL Herbicide Product Use Rates, Rotational Crop Guidelines, Replanting Instructions, Weed Controlled and any other section of this label pertinent to the anticipated crop use. It is important to note that not all varieties or cultivars of a given crop species have been evaluated under treatment with Portfolio CAL Herbicide. Consult university or extension weed management specialists for additional information on specific local varieties or cultivars and any other pertinent information on Portfolio CAL Herbicide under specific local conditions.

Restrictions

Apply Portfolio CAL Herbicide only to dormant mint or new mint plantings before new growth emerges.

Do not use on soils classified as sand, which have less than 1% organic matter.

Do not apply more than 12 fluid ounces (0.375 pound active) per twelve-month period. The twelve-month period is considered to begin upon the initial Portfolio CAL Herbicide application.

TURF

SOD PRODUCTION (33.0)

Portfolio CAL Herbicide may be applied to established seeded, sodded or sprigged turfgrasses following the second mowing for the control of key grass, sedge and broadleaf weeds. Turf grasses should have developed a good root system, a uniform stand with healthy root systems to fill in the exposed edges prior to application. Sod injury could result from application of this product on sod that is not well established or has been weakened by stresses such as unfavorable weather conditions, diseases, chemical, recent harvesting or mechanical influences.

Turf Grass Tolerance

When applied as directed, the following established turf grasses are tolerant to Portfolio CAL Herbicide at the recommended use rates.

Table 25 Tolerant grasses

Grass Type	Maximum Use Rate For Single Application	
Cool Season Grasses **	Fluid Ounces Portfolio CAL Herbicide Per Acre	Pound Active Ingredient Per Acre
Bentgrass, creeping	4	0.125
Fescue, fine * (Festuca rubra) Fescue, tall * (Festuca arundinacea)	4-8	0.125- 0.25

Ryegrass, perennial (Lolium perenne Bluegrass, Kentucky (Poa pratensis) Bluegrass, Rough (Poa trivialis)		
Warm Season Grasses **		
Bahiagrass (Paspalum notatum) Buffalograss (Buchloe dactyloides) Carpetgrass (Axonopus affinis) Centipedegrass (Eremochloa ophuioides) Kikuyugrass (Pennisetum clandestinum) Seashore Paspalum (Paspalum vaginatum) Zoysiagrass (Zoysia japonica) Bermudagrass (Cynadon dactylon) Bermudagrass Hybrids (Cyn Bluegrass, St. Augustinegrass (Stenotaphrum secundatum)	8-12	0.25-0.375

* Applications of Portfolio CAL Herbicide to certain varieties of Chewings Fine Fescue or Tall Fescue may result in undesirable plant response.

** It is important to note that not all varieties or cultivars have been evaluated under treatment with Portfolio CAL Herbicide. Consult university or extension weed management specialists for additional information on specific local varieties or cultivars and any other pertinent information on Portfolio CAL Herbicide under specific local conditions.

Applications to Reseeded, Overseeded or Sprigged Areas
Reseeding, overseeding or sprigging may be done following Portfolio CAL Herbicide applications to turfgrasses. If reseeding, overseeding or sprigging is done within 1 month following a Portfolio CAL Herbicide treatment, the establishment of desirable grasses may be inhibited. Overseeding of bermudagrass with perennial ryegrass may be done two (2) to four (4) weeks following a Portfolio CAL Herbicide application provided slight grass plant response can be tolerated.

Optimum reseeding and overseeding results may be obtained with the use of mechanical or power seeding equipment, and where proper soil cultivation, irrigation and fertilization practices are followed.

Adjuvant use
Good spray coverage is required for optimum control of weeds. Temporary discoloration of some sod species may result from use of surfactant. Use of surfactants is not recommended.

Postemergence Control of Sedges
Portfolio CAL Herbicide may be applied at the rate of four (4) to twelve (12) fluid ounces per acre to established turf grasses for the control or suppression of sedges. Select the correct Portfolio CAL Herbicide use rate from Table 25.

When applied as directed, Portfolio CAL Herbicide will provide control or suppression of the following sedges.
Table 26A

Common Name	Scientific Name
Kyllinga, green	*Kyllinga brevifolia*
Kullinga, false green	*Kyllinga gracillima*
Nutsedge, purple	*Cyperus rotundus*
Nutsedge, yellow	*Cyperus esculentus*
Sedge, cylindrical	*Cyperus retrorsus*
Sedge, globe	*Cyperus globulosus*
Sedge, Surinam	*Cyperus surinamensis*
Sedge, Texas	*Cyperus polystachyos*

Purple nutsedge: For optimum control of purple nutsedge, split applications are recommended below. Apply 4-8 ounces per acre as an initial application followed by a second application when evidence of actively growing purple nutsedge is visible. Do not exceed the maximum rate per acre based on the turf variety as listed in Table 25; tolerant grasses.

Split Application Rates for Optimum Purple Nutsedge Control

Grass Type	First Application (fl. ozs. per acre)	Second Application (fl. ozs. per acre
Cool Season Grasses	2-4 fl. ounces	2-6 fl. ounces
Warm Season Grasses	4-6 fl. ounces	4-6 fl. ounces

Allow 35 days after first application for second application.

Postemergence Control of Grassy Weeds

Portfolio CAL Herbicide will control or suppress specific annual grasses (Table 26 B) when applied at a rate of 4 to 12 fl oz/acre . Apply the highest rate consistent with the rate needed for turfgrass tolerance in Table 25. Rates lower than 12 fl oz/acre will generally control grasses for at least 60 days. Portfolio CAL Herbicide works best if applied when the annual grasses are small (pre tiller stage) and actively growing.

Table 26B

Common Name	Scientific Name
Goosegrass	*Eleusine indica*

Postemergence Control of Broadleaf Weeds
Portfolio CAL Herbicide will control or suppress the weeds listed in the broadleaf chart below when applied alone shortly after weeds have emerged. Portfolio CAL Herbicide may be applied at the rate of four (4) to twelve (12) fluid ounces per acre to established turf grasses for the control or suppression of broadleaf weeds. Select the correct Portfolio CAL Herbicide use rate from Table 25. For optimum results, Spartan applications should be made shortly after weeds have emerged.

Portfolio CAL Herbicide may be tankmixed with other herbicides, insecticides and fungicides registered for use on turfgrasses. Read and follow the label recommendations of the tank mix partner to determine turfgrass specie tolerance, use rates and application requirements. Follow all label restrictions, use directions and precautionary statements before use.

When applied as directed, Portfolio CAL Herbicide will provide control or suppression of the following broadleaf weeds.

Broadleaves	Scientific Names
Bittercress	*Cardamine spp.*
Black Medic	*Medicago lupulina*
Buttercup	*Ranunculus spp.*
Carolina geranium	*Geranium carolinianum*
Carpetweed	*Mollugo verticillata*
Chickweed, common	*Stellaria media*
Chickweed, mousear	*Cerastium vulgatum*
Cinquefoil	*Potentilla spp.*
Clover	*Trifolium spp.*
Cudweed	*Gnaphalium spp.*
Dandelion	*Taraxacum officinale*
Dock, curly	*Rumex crispus*
Evening primrose	*Oenothera biennis*
Fiddleneck	*Amsinckia spp.*

Filaree	*Erodium spp.*
Garlic, wild	*Allium vineale*
Goldenrod	*Solidago spp.*
Ground ivy	*Glechema hederasea*
Henbit	*Lamium amplexicaule*
Knotweed, prostrate	*Polygonum aviculare*
Kochia	*Kochia scoparia*
Lambsquarters, common	*Chenopodium album*
Lawn burweed	*Soliva pterosperma*
Lespedeza, common	*Lespedeza striata*
Mallow, common	*Malva neglecta*
Onion, wild	*Allium canadense*
Parsley piert	*Alchemilla arvensis*
Pigweed, redroot	*Amaranthus retroflexus*
Pigweed, tumble	*Amaranthus albus*
Pineapple weed	*Matricaria matricariodes*
Plantain, buckhorn	*Plantago lanceolata*
Puncture weed	*Tribulus terrestris*
Purslane, common	*Portulaca oleracea*
Pusley, Florida	*Richardia scabra*
Redweed	*Melochia corchorifolia*
Rocket, London	*Sisymbrium irio*
Smartweed, PA	*Polygonum pensylvanicum*
Sorrel, red	*Rumex acetosella*
Speedwell	*Veronica spp.*
Spurge, annual	*Euphorbia spp.*
Spurge, prostrate	*Euphorbia humistrata*
Spurge, spotted	*Euphorbia maculata*
Star of Bethlehem	*Ornithogalum umbellatum*
Velvetleaf	*Abutilon theophrasti*
Violet, wild	*Viola pratincola*
Woodsorrel, creeping	*Oxalis corniculata*
Woodsorrel, yellow	*Oxalis stricta*

Precautions
The use of additional surfactants may cause temporary undesirable effects to turfgrasses.

Restrictions
Sod production areas must be established three (3) months prior to the initial treatment of Portfolio CAL Herbicide.

Do not apply Portfolio CAL Herbicide to golf course greens or tees.

Do apply Portfolio CAL Herbicide to turf grasses not listed on this label.

Do not apply with surfactants without on-site evaluations for spray mixture compatibility and physical effects to turf grasses.

Do not graze or feed forage harvested from Portfolio CAL Herbicide treated areas.

Do not apply to landscape ornamental plants or ornamental beds.

Do not harvest sod within three (3) months of Portfolio CAL Herbicide application.

Non-CROP USES (34.0)

For Use in Railroad, Highway, Roadside, Pipeline and Utility Rights-of-Way, Industrial Areas, Fence Rows, and Other Non-crop Sites. Can Also Be Used For Selective Weed Control in Turf Sites Including Residential and Institutional Lawns, Athletic Fields, Commercial Sod Farms, Golf Course Fairways and Roughs.

DIRECTIONS FOR USE (35.0)

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.

Do not apply this product through any type of irrigation system.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your state or tribe, consult the agency responsible for pesticide regulation.

GENERAL INFORMATION (36.0)

Portfolio CAL Herbicide is a selective soil applied herbicide for the control of certain broadleaf weeds, grasses and sedges. When applied according to directions, it will provide control of susceptible species. Portfolio CAL Herbicide is formulated as flowable (suspension concentrate) containing four pounds of the active ingredient sulfentrazone per gallon.

The mode of action of Portfolio CAL Herbicide involves uptake by weed roots and shoots. Observe all instructions, mixing directions, application precautions and other label information of each product when tank mixing with Portfolio CAL Herbicide.

Proper handling instructions: This product may not be mixed or loaded within 50 feet of any wells (including abandoned wells and drainage wells), sink holes, perennial or intermittent streams and rivers, and natural or impounded lakes and reservoirs. This setback does not apply to properly capped or plugged abandoned wells and does not apply to impervious pad or properly diked mixing/loading areas.

Operations that involve mixing, loading, rinsing or washing of this product into or from pesticide handling or application equipment or containers within 50 feet of any well, are prohibited unless conducted on an impervious pad constructed to withstand the weight of the heaviest load that may be positioned on or moved across the pad. Such a pad shall be designed and maintained to contain any product spills or equipment leaks, container or equipment rinse or wash water, and rainwater that may fall on the pad. Surface water shall not be allowed to either flow over or from the pad, which means the pad must be self contained. The pad shall be sloped to facilitate material removal. An unroofed pad shall be of sufficient capacity to contain at a minimum 110% of the capacity of the largest pesticide container or application equipment on the pad. A pad that is covered by a roof of sufficient size to completely exclude precipitation from contact with the pad shall have a minimum containment capacity of 100% of the capacity of the largest pesticide container or application equipment on the pad. Containment capacities as described above shall be maintained at all times. The above specific minimum containment capacities do not apply to vehicles when delivering pesticide shipments to the mixing/loading site. States may have in effect additional requirements regarding wellhead setbacks and operational containment.

Product must be used in a manner which will prevent back siphoning in wells, spills or improper disposal of excess pesticide, spray mixtures or rinsates.

GENERAL APPLICATION INFORMATION (37.0)

Utilize a boomless application system or a boom and nozzle sprayer equipped with the appropriate nozzles, spray tips and screens and adjusted to provide optimum spray distribution and coverage at the appropriate operating pressures. Utilize nozzles and boomless sprayer configurations which

produce minimal amounts of fine spray droplets. Do not exceed 25 psi spray pressure unless otherwise required by the manufacturer of drift reducing nozzles or boomless application systems. Apply a minimum of 10 gallons of finished spray per acre.

Water must be used as the carrier for this product when applied alone, or when tank mixed with other herbicides.

Avoid letting this product sit overnight as settling of product and difficulty of resuspending may occur.

Do not allow spray to drift onto adjacent plants as injury to other plants may occur.

Do not apply to ornamental shrubs and trees, turf grasses or crops.

SPRAY TANK PREPARATION (38.0)

It is important that spray equipment is clean and free of existing pesticide deposits before using this product. Follow the spray tank clean out procedures specified on the label of product previously applied before adding Portfolio CAL Herbicide to the tank.

Mixing Instructions (38.1)

Portfolio CAL Herbicide may be tank mixed with other herbicides for control of additional weed species. Mixtures with some other herbicides have not been tested. Conduct an appropriate compatibility test prior to tank mixing with other products. Follow all precautions and restrictions on the tank mix partner label.

For best results, fill spray tank with one half of the volume of clean water needed for the area to be treated. Start agitation system. Slowly add Portfolio CAL Herbicide to the spray tank. Complete filling the spray tank to the desired level. Continuous spray tank agitation is required at all times to maintain a uniform spray solution. Make sure Portfolio CAL Herbicide is thoroughly mixed before application or before adding another product to the spray tank.

For tank mixtures with other herbicides, a jar test should be conducted to ensure product compatibility before full-scale mixing. Provided the jar test indicates the mixture to be compatible, prepare the tank mixture as follows: Fill the tank one half full with water. With agitator operating, add the recommended amounts of ingredients using the following order: dry granules first, liquid suspensions (flowables) second. Add EC products followed by water soluble products to tank as agitation continues and tank is filled with water. All applicable directions, restrictions and precautions for the tank mixture herbicides must be followed.

Use the Portfolio CAL Herbicide mixture immediately after mixing. Do not store the sprayer overnight or for any extended period of time with the Sulfentrazone spray mixture remaining in the tank. Premixing Portfolio CAL Herbicide spray solutions in nurse tanks is not recommended.

If Portfolio CAL Herbicide is tank-mixed with other herbicides, all additional directions , restrictions and precautions for the tank mixture herbicides must be followed.

SPRAY DRIFT MANAGEMENT (39.0)

Avoiding spray drift at the application site is the responsibility of the applicator. The interaction of many equipment and weather-related factors determine the potential for spray drift. The applicator and the grower are responsible for considering all these factors when making decisions.

The following drift management requirements must be followed to avoid off-target drift movement from aerial applications. These requirements do not apply to forestry applications, public health uses or to applications using dry formulations.

1. The distance of the outer most nozzles on the boom must not exceed ¾ the length of the wingspan or rotor.

2. Nozzles must always point backward and parallel with the air stream and never be pointed downwards more than 45 degrees. Where states have more stringent regulations, they should be observed.

The applicator should be familiar with and take into account the information covered in the Aerial Drift Reduction Advisory Information.

Importance of Droplet Size (39.1)

The most effective way to reduce drift potential is to apply large droplets. The best drift management strategy is to apply the largest droplets that provide sufficient coverage and control. Applying larger droplets reduces drift potential, but will not prevent drift if applications are made improperly, or under unfavorable environmental conditions (see Wind, Temperature and Humidity, and Temperature Inversion section of this label).

Controlling Droplet Size (39.2)

Volume: Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets.

Pressure: Use the lower spray pressures recommended for the nozzle. Higher pressure reduces droplet size and does not improve canopy penetration. When higher flow rates are needed, use higher flow rate nozzles instead of increasing pressure.

Number of nozzles: Use the minimum number of nozzles that provide uniform coverage.

Nozzle Orientation: Orienting nozzles so that the spray is released backwards, parallel to the airstream will produce larger droplets than other orientations. Significant deflection from the horizontal will reduce droplet size and increase drift potential.

Nozzle Type: Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles. Solid stream nozzles oriented straight back produce larger droplets than other nozzle types.

Boom Height: Making applications at the lowest height that produces a uniform spray pattern will reduce exposure of droplets to evaporation and wind.

Boom Length: For some use patterns, reducing the effective boom length to less than ¾ of the wingspan or rotor length may further reduce drift without reducing swath width.

Application Height (by air): Applications should not be made at a height greater than 10 feet above the top of the largest plants unless a greater height is required for aircraft safety. Making applications at the lowest height that is safe reduces exposure of droplets to evaporation and wind.

Swath Adjustment

When applications are made with a crosswind toward sensitive areas, the swath will be displaced downwind. Therefore, on the up and downwind edges of the field, the applicator must compensate for this displacement by adjusting the path of the aircraft upwind. Swath adjustment distance should increase, with increasing drift potential (higher wind, smaller drops, etc.). For ground applications, when applications are made with a crosswind towards sensitive areas, the application should leave a buffer to avoid off-site movement.

Wind

Drift potential is lowest between wind speeds of 2-10 mph. However, many factors, including droplet size and equipment type determine drift potential at any given speed. Application should be avoided below 2 mph due to variable wind direction and high inversion potential

Note: Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they affect drift.

Temperature and Humidity

When making applications in low relative humidity, set up equipment to produce larger droplets to compensate for evaporation. Droplet evaporation is most severe when conditions are both hot and dry.

Temperature Inversions

Applications should not occur during a temperature inversion because drift potential is high. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions due to the light variable winds common during inversions. Temperature inversions are characterized by increasing temperatures with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog; however, if fog is not present, inversions can also be identified by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upwards and rapidly dissipates indicates good vertical air mixing.

Sensitive Areas

The pesticide should only be applied when the potential for drift to adjacent sensitive areas (e.g., residential areas, bodies of water, known habitat for threatened or endangered species, non-target crops) is minimal (e.g, when wind is blowing away from the sensitive areas).

Drift Control Additives

Drift control additives may be used with all spray equipment with the exception of controlled droplet applicators. When a drift control additive is used, read and carefully observe cautionary statements and all other information on the label. It is recommended that additives be certified by the Chemical Producers and Distributors Association (CPDA).

Sprayer Equipment Clean-Out (40.0)

After spraying Portfolio CAL Herbicide and before using sprayer equipment for any other applications, the sprayer must be thoroughly cleaned using the following procedure:

1. Drain sprayer tank, hoses, and spray boom and thoroughly rinse the inside of the sprayer tank with clean water to remove sediment and residues. In addition, thoroughly flush sprayer hoses, boom, and nozzles with clean water.
2. Fill the tank 1/2 full with clean water, and add appropriate detergent or ammonia (follow manufacturer's directions for use). Fill the tank to capacity and operate the sprayer for 15 minutes to flush hoses, boom, and nozzles.
3. Drain the sprayer system. Rinse the tank with clean water and flush through the hoses, boom, and nozzles. Remove and clean spray tips and screens separately.
4. Properly dispose of all cleaning solution and rinsate in accordance with Federal, State and local regulations and guidelines.

Do not drain or flush equipment on or near desirable trees or plants. Do not contaminate any body of water including irrigation water that may be used on other plants.

APPLICATION INSTRUCTIONS (41.0)

Railroad Rights-of-Way (41.1)

Portfolio CAL Herbicide can be used to control many weeds and maintain bare ground on railroad rights-of-way, including railroad yards, railroad crossings and railroad bridge abutments.

Highway, Roadside, Pipeline and Utility Rights-of-Way. (41.2)

Portfolio CAL Herbicide can be used to control many weeds and maintain bare ground in highway, roadside, pipeline and utility rights-of-way, Such areas would include, but are not limited to, guard rails, road shoulders, electric utility substations, pipeline pumping stations, around electric transmission towers, around distribution line poles and in other areas where complete vegetation control is desired.

Industrial Areas, Fence Rows and Other Non-crop Sites (41.3)

Portfolio CAL Herbicide controls weeds and maintains bare ground in industrial areas including production facilities, tank farms, storage areas, parking areas, lumber yards, airports, military installations, along fence rows, and in similar non-crop sites where complete vegetation control is needed.

Method and Rate of Application (41.4)

For residual control of germinating weeds in non-crop land, apply this product as a broadcast treatment at 8 to 12 fluid ounces (0.25 to 0.375 pounds active ingredient) per acre by ground in a minimum of 10 gallons of spray solution per acre. Applications may be made by helicopter on railroad rights-of-way only.

DO NOT apply Portfolio CAL Herbicide to soils classified as sand with less than 1% Organic Matter.

Use labeled rates of burndown herbicides such as glyphosate, glyphosate - trimesium, diquat, 2,4-D, dicamba,etc. as tank mixtures with Portfolio CAL Herbicide. Use recommended adjuvants for the herbicide tank mix partner. For all products used in tank mixes, refer to the specific product labels for all restrictions on tank mixing and observe all label precautions, instructions and rotational cropping restrictions.

Timing

For best results, apply Portfolio CAL Herbicide alone or in combination with other herbicides for residual control of weeds in late summer, fall, or early spring to insure adequate moisture for soil activation.

Weeds Controlled

This product, when applied at 8 to 12 fluid ounces per acre, will control the following weeds in non-cropland areas. Use the higher labeled rates to extend length of control. Use the higher rates on sites with fine soil textures and on sites with more than 2% organic matter.

Weeds Controlled	
Common Name	**Scientific Name**
Beggarweed, Florida	Desmodium tortuosum
Carpetweed	Mollugo verticillata
Chickweed, common	Stellaria media
Copperleaf, Hophornbeam	Acalypha ostryifolia
Crabgrass species	Digitaria spp.
Croton, tropic	Croton glandulosus
Daisy, American	Coreopsis grandiflora
Dayflower, common	Commelina communis
Dayflower, Virginia	Commelina virginica
Dock, curly	Rumex crispus
Fixweed	Descurainia Sophia
Galinsoga, hairy	Galinsoga ciliata
Groundcherry, clammy (seedling)	Physallis heterophylla
Groundcherry, cutleaf	Physalis angulata
Jimsonweed	Datura stramonium
Kochia	Kochia scoparia
ALS/Triazene Resistant Kochia	Kochia scoparia
Lambsquarter, common	Chenopodium album
Lettuce, wild	Lactuca virosa
Mallow, common	Malva neglecta
Milkweed, honeyvine	Ampelamus albidus
Mexicanweed	Caperonia castanifolia
Morningglory species	Ipomoea spp.
Mustard species	Brassica spp.

Nightshade species	Solanum spp.
Nutsedge species	Cyperus spp
Palmer amaranth	Amaranthus palmeri
Pigweed, smooth	Amaranthus hybridus
Pigweed, redroot	Amaranthus retroflexus
Texasweed	Caperonia palustrus
Thistle, Russian	Salsola iberica
Waterhemp, tall	Amaranthus tuberculatus
Waterhemp, common	Amaranthus rudis

Turf Use Instructions (42.0)

General Information (42.1)

Portfolio CAL Herbicide is a selective preemergence and post emergence herbicide which controls annual grasses and broadleaf weeds in established turf areas including, but not limited to, residential and institutional lawns, athletic fields, commercial sod farms, golf course fairways and golf course roughs. To broaden the spectrum for preemergence control or suppression of annual grasses and/or broadleaf weeds, Portfolio CAL Herbicide should be tank mixed with an EPA registered annual grass herbicide. Observe all instructions, mixing directions, application precautions and other label information of each product when tank mixing with Portfolio CAL Herbicide.

Portfolio CAL Herbicide is formulated as a flowable (suspension concentrate) containing 4 lbs of active ingredient per gallon. The mode of action of Portfolio CAL Herbicide involves uptake by both weed roots and shoots. Preemergence application of Portfolio CAL Herbicide requires soil moisture for activation. The amount of soil moisture required for activation following application depends on existing soil moisture, organic matter content and soil texture. The most effective preemergence weed control will be obtained when Portfolio CAL Herbicide is activated by at least 0.5 inches of rainfall or irrigation within 7 days after application and prior to weed seed germination.

Mixing and Application Instructions (42.2)

General handling instructions

This product may not be mixed or loaded within 50 feet of any wells (including abandoned wells and drainage wells), sink holes, perennial or intermittent streams and rivers, and natural or impounded lakes and reservoirs. This setback does not apply to properly capped or plugged abandoned wells and does not apply to impervious pad or properly diked mixing/loading areas.

Operations that involve mixing, loading, rinsing or washing of this product into or from pesticide handling or application equipment or containers within 50 feet of any well, are prohibited unless conducted on an impervious pad constructed to withstand the weight of the heaviest load that may be positioned on or moved across the pad. Such a pad shall be designed and maintained to contain any product spills or equipment leaks, container or equipment rinse or wash water, and rainwater that may fall on the pad. Surface water shall not be allowed to either flow over or from the pad, which means the pad must be self contained. The pad shall be sloped to facilitate material removal. An unroofed pad shall be of sufficient capacity to contain at a minimum 110% of the capacity of the largest pesticide container or application equipment on the pad. A pad that is covered by a roof of sufficient size to completely exclude precipitation from contact with the pad shall have a minimum containment capacity of 100% of the capacity of the largest pesticide container or application equipment on the pad. Containment capacities as described above shall be maintained at all times. The above specific minimum containment capacities do not apply to vehicles when delivering pesticide shipments to the mixing/loading site. States may have in effect additional requirements regarding wellhead setbacks and operational containment.

Product must be used in a manner which will prevent back siphoning in wells, spills or improper disposal of excess pesticide, spray mixtures or rinsates.

SPRAY TANK PREPARATION

It is important that spray equipment is clean and free of existing pesticide deposits before using this product. Follow the spray tank clean out procedures specified on the label of product previously applied before adding Portfolio CAL Herbicide to the tank.

Portfolio CAL Herbicide is a suspension concentrate intended for dilution with water. In certain applications, liquid fertilizer may replace water as diluent.

MIXING WITH WATER

For best results, fill spray tank with one fourth of the volume of clean water needed for the area to be treated. Start the agitation system and add Portfolio CAL Herbicide to the tank. Make sure Portfolio CAL Herbicide is thoroughly mixed before application or before adding another product to the spray tank.

USE OF SURFACTANTS

Temporary discoloration of some turf types may result from use of surfactants or adjuvants with Portfolio CAL Herbicide. High temperatures and high relative humidity may increase the risk of temporary discoloration. Use of surfactants is not recommended.

MIXING WITH LIQUID FERTILIZERS

Utilize local recommendations for sources and rates of fertilizer and refer to mixing directions on the fertilizer labels (e.g. UAN or urea solutions). Determine the compatibility of this product with the desired fluid fertilizer by mixing small proportional quantities in advance (See the "TANK MIXTURES COMPATIBILITY" section below)

TANK MIXTURES COMPATIBILITY

Portfolio CAL Herbicide is believed to be compatible with most herbicides, fungicides, insecticides, growth regulators, liquid fertilizers and spray adjuvants commonly used in turf and ornamental plant management. However, when preparing a new tank mix conduct an appropriate compatibility test by mixing proportional amounts of all spray ingredients in a test vessel (jar) prior to tank mixing with other products. Shake the mixture vigorously and allow it to stand for five to ten minutes. Rapid precipitation of the ingredients and failure to re-suspend when shaken indicates that the mixture is incompatible and should not be applied. Provided the jar test indicates the mixture to be compatible, prepare the tank mixture as follows: Fill the tank one fourth full with water. With the agitator operating, add the recommended amounts of ingredients using the following order: dry granules first, and liquid suspensions (flowables) second. As the agitation continues and the tank is filled with water add EC products third followed by the addition of water soluble products.

Read and observe mixing instructions of all tank mix partners. Also read each product's label for Directions for Use, Precautionary Statements and Restrictions and Limitations. The most restrictive labeling applies in all tank mixtures. No label dosage rate should be exceeded. Tank mixture recommendations are for use only in states where the companion products and application site are registered. In addition, certain states or geographical regions may have established dosage rate limitations. Consult your state Pesticide Control Agency for additional information regarding the maximum use rates.

Use Portfolio CAL Herbicide spray mixture immediately after mixing. Do not store the mixture.

Ground Equipment

Power sprayers: Uniform and accurate spray coverage requires proper calibration and operation of spray equipment. The use of marker dyes or foams can improve application accuracy. Boom sprayers equipped with appropriate flat fan nozzles, tips and screens are ideal for broadcast applications. Power sprayers fitted with spray wand/gun may also be used for broadcast application after careful calibration by the applicator. Power sprayers fitted with spray wand/gun are suitable for spot treatments.

Hand operated sprayers: Backpack and compression sprayers are appropriate for small turfgrass areas and spot treatments. Wands fitted with a flat fan nozzle tip should be held stationary at the proper height during application. A side to side or swinging action can result in uneven coverage.

Apply this product in a sufficient volume of carrier solution to provide a uniform spray distribution. Spray volumes of 20 – 175 gallons per acre (0.5 to 4.0 gal/1,000 ft^2) with spray pressures adjusted to 20 – 40 psi are appropriate. Apply the higher spray volumes for dense weed populations.

Sprayer Equipment Clean-Out
After spraying Portfolio CAL Herbicide and before using sprayer equipment for any other applications, the sprayer must be thoroughly cleaned using the following procedure:

1. Drain sprayer tank, hoses, and spray boom and thoroughly rinse the inside of the sprayer tank with clean water to remove sediment and residues. In addition, thoroughly flush sprayer hoses, boom, and nozzles with clean water.
2. Fill the tank 1/2 full with clean water, and add appropriate detergent or ammonia (follow manufacturer's directions for use). Fill the tank to capacity and operate the sprayer for 15 minutes to flush hoses, boom, and nozzles.
3. Drain the sprayer system. Rinse the tank with clean water and flush through the hoses, boom, and nozzles. Remove and clean spray tips and screens separately.
4. Properly dispose of all cleaning solution and rinsate in accordance with Federal, State and local regulations and guidelines.

Do not drain or flush equipment on or near desirable trees or plants. Do not contaminate any body of water including irrigation water that may be used on other plants.

Weed Control in Turfgrasses (42.3)

Use Precautions for Turf Use

Turfgrass Safety

This product may be used on seeded, sodded or sprigged turgrasses that are well established. First application of this product can be made following the second mowing providing the turfgrass has developed into a uniform stand with a good root system. Turfgrass injury could result from application of this product on turfgrass that is not well established or has been weakened by stresses such as unfavorable weather conditions, disease, chemical or mechanical influences.

When applied as directed under the conditions described, the following established turfgrasses are tolerant to Portfolio CAL Herbicide at the recommended use rates in a range from 0.125 to 0.375 lb a.i./acre (4 to 12 fl. oz/acre or 0.092 to 0.275 fl. oz./1,000 sq. ft).

Table 27. Tolerant grasses.

Grass Type*	Maximum Use Rate Single Application		
Cool Season Grasses	lb ai/A	Fluid ounces per 1000 ft^2	Fluid ounces per acre
Bentgrass, creeping *(Agrostis sp.)*	0.125	0.092	4
Bluegrass, Kentucky *(Poa pratensis)* Bluegrass, Rough[2] *(Poa trivialis)* Fescue, fine[1] *(Festuca rubra)* Fescue, tall[1] *(Festuca arundinacea)* Ryegrass, perennial *(Lolium perenne)*	0.125 - .25	0.092 - 0.18	4 - 8
Warm Season Grasses			
Bahiagrass[2] *(Paspalum notatum)* Bermudagrass *(Cynodon dactylon)* & hybrids Buffalograss *(Buchloe dactyloides)* Carpetgrass *(Axonopus affinis)* Centipedegrass *(Eremochloa ophuiroides)* Kikuyugrass *(Pennisetum clandestinum)* Seashore Paspalum (Paspalum vaginatum) St.Augustinegrass *(Stenotaphrum secundatum)*[2] Zoysiagrass *(Zoysia japonica)*[2]	0.25 - 0.375	0.18 – 0.275	8 - 12

1. Use of this product on certain cultivars of Chewings Fescue Fine Fescue or Tall Fescue cultivars may result in undesirable injury.
2. Portfolio CAL Herbicide application may cause temporary discoloration to exposed leaf surfaces on St. Augustinegrass and certain cultivars of zoysiagrass bahiagrass,.or rough bluegrass. Treated turfgrass will recover with new growth. Discolored leaf tissue will be removed with mowing. To reduce potential for discoloration, do not apply Portfolio CAL Herbicide on turfgrass that is weakened by weather, mechanical, chemical, disease or other related stress. Maintain proper cultural practices such as adequate moisture and fertility levels to promote healthy turf growth.

* Portfolio CAL Herbicide has demonstrated tolerance on both cool and warm season turfgrasses. However, not all varieties have been evaluated. Turfgrass managers desiring to treat newly released varieties should first apply Portfolio CAL Herbicide to a small area prior to treatment of larger areas.

Application to reseeded, overseeded or sprigged areas:
Reseeding, overseeding or sprigging of treated areas within one (1) month after application of this product could inhibit the establishment of desirable turfgrasses. Overseeding of bermudagrass with perennial ryegrass at two (2) to four (4) weeks after an application can be done if slight injury to perennial ryegrass can be tolerated.

Best results are obtained for reseeding or overseeding when mechanical or power seeding equipment (slit seeders) are used to give good seed to soil contact and proper soil cultivation, irrigation and fertilization practices are followed.

Sod Production:
This product may be applied to established sod. Allow sod to establish a good root system, a uniform stand and to fill in the exposed edges. It is recommended that sod be established for at least three (3) months before an application of Portfolio CAL Herbicide. Do not apply this product within three (3) months of harvest.

Other Use Precautions:
Do not apply to golf course putting greens or tees.

Do not use on turfgrasses other than those listed on this label.

Do not apply with surfactants unless previous experience has demonstrated combinations with surfactant to be physically compatible and non-injurious to the grass type in question.

Do not graze or feed livestock forage cut from areas treated with Portfolio CAL Herbicide.

Do not apply directly to landscape ornamentals or ornamental beds.
Temporary turfgrass discoloration has been observed when Primo has been either tank-mixed or applied in 7 days of a Portfolio CAL Herbicide application. It is recommended that Primo applications be made 7 days prior to, or after Portfolio CAL Herbicide application to reduce risk of turfgrass discoloration.

PREEMERGENCE CONTROL OF ANNUAL GRASSES AND BROADLEAF WEEDS

Control of Summer Annual Weeds:
Apply Portfolio CAL Herbicide at the application rate for the turf species being managed (4 to 12 fluid ounces/acre or 0.092 to 0.275 fl. oz./1,000 sq. ft.) prior to weed seed germination in early spring. Applications in early spring will control or suppress the following summer annuals:

Black medic	*(Medicago lupulina)*
Common purslane	*(Portulaca oleracea)*
Pigweed, Redroot	*(Amaranthus retroflexus)*
Pigweed, Smooth	*(Amaranthus hybridus)*
Prostrate knotweed	*(Polygonum aviculare)*
Spurge Prostrate spurge Spotted spurge	*(Euphorbia spp.)* *(Euphorbia supina)* *(Euphorbia maculata)*
Barnyardgrass	*(Echninochloa crusgalli)*
Crabgrass, large	*(Digitraria sanguinalis)*
Crabgrass, smooth	*(Digitaria ischaemum)*
Foxtail, green	*(Setaria viridis)*
Foxtail, yellow	*(Setaria glauca)*
Goosegrass	*(Eleusine indica)*

Control of Winter Annual Weeds:
Apply Portfolio CAL Herbicide at the application rate for the turf species being managed (4 to 12 fluid ounces/acre or 0.092 to 0.275 fl. oz./1,000 sq. ft.) in late summer or early fall to control or suppress the following winter annual weeds:

Buttercups	*(Ranunculus spp.)*
Carolina geranium	*(Geranium carolinianum)*
Common chickweed	*(Stellaria media)*
Common groundsel	*(Senecio vulgaris)*
Corn Speedwell	*(Veronica arvensis)*
Hairy bittercress	*(Cardamine hirsuta)*
Henbit	*(Lamium amplexicaule)*
Johnnyjumpup violet	*(Viola rafeinesquii)*
Knawel	*(Scleranthus annuus)*
Large hop clover	*(Trifolium campestre)*
Mouseear chickweed	*(Cerastium vulgatum)*
Parsley-piert	*(Alchemilla microcarpa)*
Spurweed	(Soliva pterosperma)
Annual bluegrass	*(Poa annua)*
Annual ryegrass	*(Lolium multiflorum)*

To broaden the spectrum for preemergence control or suppression of annual grasses and/or broadleaf weeds, Portfolio CAL Herbicide can be tank mixed with an EPA registered annual grass herbicide. Applications in combination with prodiamine, pendimethalin, dithiopyr or oxadiazon will provide broad spectrum control of the weeds listed in Table 28. Read the label recommendations of the tank mix partner to determine grass species safety, use rate and application procedures. Follow all label restrictions, use directions and precautionary statements before using these tank mixtures. Read and follow the "TANK MIXTURES COMPATIBILITY" section of this label for instructions on how to determine the compatibility of tank mixtures.

POSTEMERGENCE CONTROL OF ANNUAL, BIENNIAL & PERENNIAL BROADLEAF WEEDS
Portfolio CAL Herbicide will control or suppress the weeds listed in Table 23 when applied alone shortly after weeds have emerged. Apply Portfolio CAL Herbicide at rates from 4 to 12 fl. oz/acre (0.092 to 0.275 fl. oz./1,000 sq. ft.). Do not exceed the application rate specified for the turfgrass species in Table 27. To broaden the weed spectrum and increase effectiveness for certain weeds listed in Table 4, Portfolio CAL Herbicide may be tank mixed with other EPA registered postemergence herbicides. Control of emerged annual grass weeds may be improved by combining Portfolio CAL Herbicide with Acclaim®, Dimension®, MSMA or Drive®. Read the label recommendations of the tank mix partner to determine turfgrass species safety, use rate and application procedures. Follow all label restrictions, use directions and precautionary statements before using these tank mixtures. Read and follow the "TANK MIXTURES COMPATIBILITY" section of this label for instructions on how to determine the compatibility of tank mixtures.

When used as directed Portfolio CAL Herbicide will control or suppress the following weeds.

Table 28. Weeds Controlled or Suppressed by Portfolio CAL Herbicide

BROADLEAVES	SCIENTIFIC NAMES
Bedstraw, catchweed	*(Galium aparine)*
Beggarweed, Florida	*(Desmodium tortuosum)*
Bittercress	*(Cardamine spp.)*
Black medic	*(Medicago lupulina)*
Buttercups	*(Ranunculus spp.)*
Carolina geranium	*(Geranium carolinianum)*
Carpetweed	*(Mollugo verticillata)*
Chickweed, common	*(Stellaria media)*
Chickweed, mouseear	*(Cerastium vulgatum)*
Cinquefoil	*(Potentilla spp.)*
Clover	*(Trifolium spp.)*
Copperleaf	*(Ascalypha spp.)*
Cudweed	*(Gnaphalium spp.)*
Dandelion	*(Taraxacum officinale)*
Dock, Curly	*(Rumex crispus)*
Dollarweed	*(Hydrocotyl umbellata)*
Eclipta	*(Eclipta prostrata)*

Evening primrose	*(Oenothera biennis)*
Fiddleneck	*(Amsinckia sp.)*
Filaree	*(Erodium spp.)*
Galinsoga	*(Galinsoga ciliate)*
Goldenrod	*(Solidago spp.)*
Ground ivy	*(Glechoma hederacea)*
Groundsel, common	*(Senecio vulgaris)*
Henbit	*(Lamium amplexicaule)*
Knawel	*(Scleranthus annuus)*
Knotweed, prostrate	*(Polygonum aviculare)*
Kochia	*(Kochia scoparia)*
Lambsquarters, common	*(Chenopodium album)*
Lawn burweed (spurweed)	*(Soliva pterosperma)*
Lespedeza, common	*(Lespedeza striata)*
Mallow, common	*(Malva neglecta)*
Parsley piert	*(Alchemilla arvensis)*
Pigweed, Redroot	*(Amaranthus retroflexus)*
Pigweed, Smooth	*(Amaranthus hybridus)*
Pigweed, Tumble	*(Amaranthus albus)*
Pineapple weed	*(Matricaria matricarioides)*
Plantain, buckhorn	*(Plantago lanceolata)*
Puncture weed	*(Tribulus terrestris)*
Purslane, common	*(Portulaca oleracea)*
Pusley, Florida	*(Richardia scabra)*
Redweed	*(Melochia corchorifolia)*
Rocket, London	*(Sisymbrium irio)*
Shepherd's purse	*(Capsella bursa-pastoris)*
Smartweed, Pennsylvania	*(Polygonum pensylvanicum)*
Sorrel, Red	*(Rumex acetosella)*
Speedwell	*(Veronica spp.)*
Spurge, (annuals)	*(Euphorbia spp.)*
Spurge, prostrate	*(Euphorbia humistrata)*
Spurge, spotted	*(Euphorbia maculata)*
Star of Bethlehem	*(Ornithogalum umbellatum)*
Velvetleaf	*(Abutilon theophrasti)*
Violet, wild	*(Viola pratincola)*
Violet, Johnny-jump-up	*(Viola rafeinesquii)*
Wild garlic	*(Allium vineale)*
Wild onion	*(Allium canadense)*
Woodsorrel, creeping	*(Oxalis corniculata)*
Woodsorrel, yellow	*(Oxalis stricta)*

POSTEMERGENCE CONTROL OF ANNUAL AND PERENNIAL SEDGES

Portfolio CAL Herbicide will control or suppress sedges (Table 29) when applied at a rate of 4 to 12 fl oz/acre (0.092 to 0.275 fl. oz./1,000 sq. ft.). Apply the highest rate consistent with the rate needed for turfgrass safety in Table 27. Rates lower than 12 fl oz/acre (0.275 fl. oz/1,000 sq. ft.) will generally control sedges for at least 60 days. A rate of 12 fl oz/acre (0.275 fl oz/1,000 sq. ft.) will provide approximately 75% control for at least 60 days. Yellow nutsedge (*Cyperus esculentus*) is the most susceptible sedge species.

Good spray coverage is needed for optimum control of sedges. Temporary discoloration of some turfgrass species may result from use of surfactant. Use of surfactants is not recommended.

Table 29. Sedge species controlled or suppressed by Portfolio CAL Herbicide

Common Name	SCIENTIFIC NAME
Kyllinga, green	*(Kyllinga brevifolia)*
Kyllinga, false green	*(Kyllinga gracillima)*
Nutsedge, purple[1]	*(Cyperus rotundus)*
Nutsedge, yellow	*(Cyperus esculentus)*
Sedge, globe	*(Cyperus globulosus)*
Sedge, cylindric	*(Cyperus retrorsus)*
Sedge, Surinam	*(Cyperus surinamensis)*
Sedge, Texas	*(Cyperus polystachyos)*

1. PURPLE NUTSEDGE; For optimum control of purple nutsedge, split applications are recommended (Table 30). Apply 4-8 ounces per acre as an initial application followed by a second application when evidence of actively growing purple nutsedge is visible. Do not exceed the maximum rate per acre based on turfgrass variety listed in Table 27; Tolerant grases.

Table 30

Split Application Rate Options		
Grass Type	Option 1 (fluid ounces/acre)	Option 2 (fluid ounces/acre)
Cool Season Grasses excluding Bentgrass (see Table 1)	4 oz followed by 4 oz 35 DAIT	6 oz followed by 2 oz 35 DAIT
Warm Season Grasses (see Table 1)	8 oz followed by 4 oz 35 DAIT	6 oz followed by 6 oz 35 DAIT

DAIT = Days After Initial Treatment

POSTEMERGENCE CONTROL OF GRASSY WEEDS

Portfolio CAL Herbicide will control or suppress specific annual grasses (Table 26) when applied at a rate of 4 to 12 fl oz/acre (0.092 to 0.275 fl. oz./1,000 sq. ft.). Apply the highest rate consistent with the rate needed for turfgrass tolerance in Table 27. Rates lower than 12 fl oz/acre

(0.275 fl. oz/1,000 sq. ft.) will generally control grasses for at least 60 days. Portfolio CAL Herbicide works best if applied when the annual grasses are small (pre tiller stage) and actively growing.

Good spray coverage is needed for optimum control of grasses. Temporary discoloration of some turfgrass species may result from use of surfactant. Use of surfactants is not recommended.

Table 30

Common Name	Scientific Name
Goosegrass	*Eleusine indica*

LABEL TRACKING INFORMATION (43.0)

Label Code: Portfolio CAL Herbicide 09-15-09 ABN

FMC Corporation
Agricultural Products Group
1735 Market Street
Philadelphia Pennsylvania 19103
215-299-6000

NEXT

LABEL

279-3370 10-30-2009 1/14

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF
PREVENTION, PESTICIDES AND
TOXIC SUBSTANCES

Mr. Michael C. Zucker
Senior Registration & Label Specialist
FMC Corporation – Agricultural Product Group
1735 Market Street
Philadelphia, PA 19103

OCT 30 2009

RE: Notification of an Alternate Brand Name: Portfolio CA Herbicide
EPA Registration Number: 279-3370
Date of Submission: September 21, 2009

Dear Mr. Zucker:

The Agency is in receipt of your Application for Pesticide Notification under Pesticide Registration Notice (PRN) 98-10 dated September 21, 2009, for the above mentioned product. The Registration Division (RD) has conducted a review of this request for its applicability under PRN 98-10 and finds that the actions requested fall within the scope of PRN 98-10. The label submitted with the application has been stamped "Notification" and will be placed in our records.

If you have any questions, please me directly at 703-305-6249 or Joyce Edwards of my staff at 703-308-5479.

Sincerely,

Linda Arrington
Notifications & Minor Formulations Team Leader
Registration Division (7505P)
Office of Pesticide Programs

Please read instructions on reverse before completing form. Form Approved. OMB No. 2070-0060. Approval expires 2-28-95

EPA

United States
Environmental Protection Agency
Washington, DC 20460

- ☐ Registration
- ☐ Amendment
- ☑ Other

OPP Identifier Number

Application for Pesticide - Section I

1. Company/Product Number	2. EPA Product Manager	3. Proposed Classification
FMC Corporation/ 279 -3370	Ms. Joanne I. Miller	☑ None ☐ Restricted
4. Company/Product (Name)	**PM#**	
FMC Corporation/Portfolio CA Herbicide	23	

5. Name and Address of Applicant *(Include ZIP Code)*

FMC Corporation - Agricultural Products Group
1735 Market Street
Philadelphia, PA 19103

☐ *Check if this is a new address*

6. Expedited Reveiw. In accordance with FIFRA Section 3(c)(3)(b)(i), my product is similar or identical in composition and labeling to:

EPA Reg. No. 279 - 3370

Product Name F6285 4F CAL Herbicide

Section - II

- ☐ Amendment - Explain below.
- ☐ Resubmission in response to Agency letter dated _____
- ☐ Notification - Explain below.
- ☐ Final printed labels in repsonse to Agency letter dated
- ☐ "Me Too" Application.
- ☐ Other - Explain below.

NOTIFICATION

OCT 3 0 2009

Explanation: Use additional page(s) if necessary. (For section I and Section II.)

Notification of an alternate brand name per PR Notice 98-10.
This notification is consistent with the provisions of PR Notice 98-10 and EPA regulations at 40 CFR 152.46, and no other changes have been made to the labeling or the confidential statement of formula of this product. I understand that it is a violation of U.S.C. Sec.1001 to willfully make any false statement to EPA. I further understand that if this notification is not consistent with the terms of PR Notice 98-10 and 40 CFR 152.46, this product may be in violation of FIFRA and I may be subject to enforcement action and penalties under sections 12 and 14 of FIFRA.

Section - III

1. Material This Product Will Be Packaged In:

Child-Resistant Packaging	Unit Packaging	Water Soluble Packaging	2. Type of Container
☐ Yes ☑ No	☐ Yes ☑ No	☐ Yes ☑ No	☐ Metal ☑ Plastic ☐ Glass ☐ Paper ☐ Other (Specify)
***Certification must be submitted**	If "Yes" Unit Packaging wgt. / No. per container	If "Yes" Package wgt / No. per container	

3. Location of Net Contents Information	4. Size(s) Retail Container	5. Location of Label Directions
☐ Label ☑ Container		☑ on label/container

6. Manner in Which Label is Affixed to Product ☑ Lithograph Paper glued Stenciled ☐ Other _____

Section - IV

1. Contact Point *(Complete items directly below for identification of individual to be contacted, if necessary, to process this application.)*

Name	Title	Telephone No. (Include Area Code)
Michael C. Zucker	Senior Registration & Label Specialist	(215)299-5876

Certification

I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowlingllly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.

2. Signature	3. Title	6. Date Application Received
Michael C. Zucker	Senior Registration & Label Specialist	(Stamped)
4. Typed Name	**5. Date**	
Michael C. Zucker	September 21, 2009	

FMC Agricultural Products

FMC Corporation
1735 Market Street
Philadelphia, PA 19103

215.299.6000 Phone
215.299.6468 Fax

www.fmc.com

September 21, 2009

United States Environmental Protection Agency
Document Processing Desk (Notifications)
Office of Pesticide Programs (7504P)
One Potomac Yard, Room S-4900
2777 South Crystal Drive
Arlington, VA 22202

Dear Ms. Miller:

Subject: Portfolio CA Herbicide
EPA Reg. No. 279-3370

Notification of an Alternate Brand Name per PR Notice 98-10.

FMC is notifying the Agency that Portfolio CA Herbicide is an alternate brand name for F6285 4F CAL Herbicide.

Enclosed please find the following documents:

- Cover Letter
- Form 8570-1
- One copy of the Portfolio CA Herbicide label.

If you have any questions, or if I can be of any further assistance, please feel free to contact me at (215) 299-5876 or by e-mail at mike_zucker@fmc.com.

Sincerely,

Michael C. Zucker

Michael C. Zucker
Senior Registration & Label Specialist
FMC Corporation
Agricultural Products Group

FMC

Portfolio CA
Herbicide

For Use Only by Individuals/Firms Certified And/or Licensed as Pesticide Applicators

EPA Reg. No. 279-3370 **EPA Est. 279-**

Active Ingredient: By Wt. (1)

Sulfentrazone	39.6%
Inert Ingredients:	60.4%
	100.0%

Contains 4 pounds of active ingredient per gallon.
U.S. Patent No. 4,818,275

KEEP OUT OF REACH OF CHILDREN

CAUTION

FIRST AID (2.0)

If Inhaled
Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice.
If on Skin or Clothing
Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.
If in Eyes
Hold eye open and rinse slowly and gently with water for 15- 20 minutes. Remove contact lenses, if present, after the first 5 minutes. Then continue rinsing eye. Call a poison control center or doctor for treatment advice.
If Swallowed
Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person.

NOTIFICATION
OCT 30 2009

HOTLINE NUMBER (3)

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-331-3148 for emergency medical treatment information.

Note to Physician: Sulfentrazone is expected to have low oral and dermal toxicity, and moderate inhalation toxicity. It is expected to be slightly irritating to the skin and minimally irritating to the eyes. Treatment is otherwise controlled removal of exposure followed by symptomatic and supportive care.

See other sections for precautionary information.

ACTIVE INGREDIENT MADE IN CHINA AND FORMULATED AND PACKAGED IN USA.

From FMC

Group 14 Herbicide

ATTENTION

-Although this label may appear similar to the label on a product you may have used, there may be important label differences. Users must read, understand and strictly follow all label directions, precautions and restrictions.

-It is the user's responsibility to be sure the product is approved for sale or use on the intended crop and for use in the specific geographic area.

-It is the user's responsibility to be aware of and to follow all State or local precautions or restrictions not appearing on this product label.

-Prior to purchase or use of this product, read the Terms of Sale or Use and Limitation of Warranty and Liability on page 2 of this label. If the terms and conditions are unacceptable, return the product immediately in the original and unopened container.

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PRECAUTIONARY STATEMENTS (4.0)

Hazards to Humans and Domestic Animals (4.1)

Caution

Causes moderate eye irritation. Harmful if inhaled, swallowed, or absorbed through skin. Avoid breathing vapor or spray mist. Avoid contact with skin, eyes or clothing.

Personal Protective Equipment (PPE) (4.2)

Applicators and other handlers must wear: long-sleeved shirt and long pants, chemical-resistant gloves made of any waterproof material such as polyethylene or polyvinyl chloride, and shoes plus socks.

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product. Do not reuse them. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

User Safety Recommendations:

Users should:

• Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

Environmental Hazards (4.3)

This pesticide is toxic to marine/estuarine invertebrates. Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Drift and runoff may be hazardous to terrestrial and aquatic plants in neighboring areas. Do not contaminate water when disposing of equipment washwaters or rinsate.

Groundwater advisories: This chemical is known to leach through soil into groundwater under certain conditions as a result of label use. Use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination.

Do not use on coarse soils classified as sand, which have less than 1% organic matter.

Surface water advisory: Sulfentrazone can contaminate surface water through spray drift. Under some conditions, sulfentrazone may also have a high potential for runoff into surface water (primarily via dissolution in runoff water), for several to many months post-application. These include poorly draining or wet soils with readily visible slopes toward adjacent surface waters, frequently flooded areas, areas overlying extremely shallow groundwater, areas with in-field canals or ditches that drain to surface water, areas not separated from adjacent surface waters with vegetated filter strips, and areas over-lying tile drainage systems that drain to surface waters.

Physical/Chemical Hazards (4.4)

Do not use or store near heat or open flame.

DIRECTIONS FOR USE (5.0)

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

For Use Only in the State of California.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application.

Do not apply more than the allowed amount of Portfolio CA Herbicide per acre per twelve-month period as stated in Table 2. The twelve-month period is considered to begin upon the initial Portfolio CA Herbicide application.

For any requirements specific to your State or Tribe, consult the Agency responsible for pesticide regulation.

AGRICULTURAL USE REQUIREMENTS (5.1)

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry interval. These requirements only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 12 hours.

Personal Protective Equipment (PPE) required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water is: Coveralls over long-sleeved shirt and long pants, chemical-resistant gloves made of any waterproof material, and shoes plus socks.

Non-Agricultural Use Requirements

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries, or greenhouses.

Re-entry Statement: Do not allow people (other than applicator) or pets on treatment area during application. Do not enter treatment area until spray has dried.

STORAGE AND DISPOSAL (5.2)

Do not contaminate water, food or feed by storage or disposal. Do not use or store around the home.

Pesticide Storage
Store product in original container only, away from other pesticides, fertilizer, food or feed.
Store in a cool, dry place and avoid excess heat.

In Case of Spill
In case of spill, avoid contact, isolate area and keep out animals and unprotected persons. Confine spills. Call FMC: (800) 331-3148.

To Confine Spill
To confine spill: If liquid, dike surrounding area or absorb with sand, cat litter or commercial clay. If dry material, cover to prevent dispersal. Place damaged package in a holding container. Identify contents.

Pesticide Disposal
Waste resulting from the use of this product may be disposed of at an approved waste disposal facility.

Container Disposal
Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: (For containers greater than 5 gallons) Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. (For containers 5 gallons or less) Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow
begins to drip. Repeat this procedure two more times. Triple rinse (or equivalent). Then offer for recycling if available, or reconditioning, or puncture and dispose of in a sanitary landfill, or incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of
smoke.

Returnable/Refillable Containers - Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. ¶ To clean the container before final disposal, empty the remaining contents into application equipment or mix tank. Fill the container about 10% full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times.

CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY (6.0)

Notice: Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before buying or using this product. If the terms are not acceptable, return the product at once, unopened, and the purchase price will be refunded.

The Directions for Use of this product must be followed carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Crop injury, ineffectiveness, or other unintended consequences may result because of such factors as manner of use or application, weather or crop conditions beyond the control or FMC or Seller. All such risks shall be assumed by Buyer and User, and, to the extent consistent with applicable law, Buyer and User agree to hold FMC and Seller harmless for any claims relating to such factors.

Seller warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated on the Directions for Use when used in accordance with the directions under normal conditions of use. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, FMC MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE, NOR ANY OTHER EXPRESS OR IMPLIED WARRANTIES WITH RESPECT TO THE SELECTION, PURCHASE, OR USE OF THIS PRODUCT. Any warranties, express or implied, having been made are inapplicable if this product has been used contrary to label instructions, or under abnormal conditions, or under conditions not reasonably foreseeable to (or beyond the control of) seller or FMC, and, to the extent consistent with applicable law, buyer assumes the risk of any such use.

To the extent consistent with applicable law, FMC or seller shall not be liable for any incidental, consequential or special damages resulting from the use or handling of this product. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF FMC AND SELLER FOR ANY AND ALL CLAIMS. LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT OR, AT THE ELECTION OF FMC OR SELLER, THE REPLACEMENT OF THE PRODUCT.

This Conditions of Sale and Limitation of Warranty and Liability may not be amended by any oral or written agreement.

RESISTANCE MANAGEMENT (7.0)

Some weeds are known to develop resistance to herbicides that have been used repeatedly. While the development of herbicide resistance is well understood, it is not easily predicted. Therefore herbicides should be used in conjunction with the resistance management strategies in the area. Consult the local or State agricultural advisors for details. If herbicide resistance should develop in the area, this product used alone may not continue to provide sufficient levels of weed control. If the reduced levels of control can not be attributed to improper application techniques, improper use rates, improper application timing, unfavorable weather conditions or abnormally high weed pressure, a resistant strain of weeds may have developed.

To reduce the potential for weed resistance use this product in a rotation program with other classes of chemistry and modes of action. Always apply this product at the recommended rates and in accordance with the use directions. Do not use less than recommended label rates alone or in tank mixtures. Do not use reduced rates of the tank mix partner. For optimum performance, scout fields carefully and begin applications when weeds are smaller rather than larger. If resistance is suspected, contact the local or State agricultural advisors.

GENERAL INFORMATION (8.0)

Portfolio CA Herbicide is a selective soil-applied herbicide for the control of susceptible broadleaf, grass and sedge weeds. Portfolio CA Herbicide is formulated as a 4 pounds per gallon flowable containing the active ingredient, sulfentrazone. **If adequate moisture (1/2" to 1") from rainfall or irrigation is not received within 7 to 10 days after the Portfolio CA Herbicide treatment, a shallow incorporation may be needed to obtain desired weed control.** When activating moisture is received after dry conditions, Portfolio CA Herbicide will provide a reduced level of control of susceptible germinating weeds. Soil applications of Portfolio CA Herbicide must be made before crop seed germination to prevent injury to the emerging crop seedlings. When applications after planting are delayed, injury may occur if seeds are germinating or if they are located near the soil surface

Observe all instructions, crop restrictions, mixing directions, application precautions, replanting directions, rotational crop guidelines and other label information of each product when tank mixing with Portfolio CA Herbicide.

Proper handling instructions: Portfolio CA Herbicide may not be mixed or loaded within 50 feet of any wells (including abandoned wells and drainage wells), sinkholes, perennial or intermittent streams and rivers, and natural or impounded lakes and reservoirs. This setback does not apply to properly capped or plugged abandoned wells and does not apply to impervious pads or properly diked mixing/loading areas.

Operations that involve mixing, loading, rinsing, or washing of this product into or from pesticide handling or application equipment or containers within 50 feet of any well are prohibited unless conducted on an impervious pad constructed to withstand the weight of the heaviest load that may be positioned on or moved across the pad. Such a pad shall be designed and maintained to contain any product spills or equipment leaks, container or equipment rinse or washwater, and rainwater that may fall on the pad. Surface water shall not be allowed to either flow over or from the pad, which means the pad must be self-contained. The pad shall be sloped to facilitate material removal. An unroofed pad shall be of sufficient capacity to contain at a minimum 110% of the capacity of the largest pesticide container or application equipment on the pad. A pad that is covered by a roof of sufficient size to completely exclude precipitation from contact with the pad shall have a minimum containment capacity of 100% of the capacity of the largest pesticide container or application equipment on the pad. Containment capacities as described above shall be maintained at all times. The above specific minimum containment capacities do not apply to vehicles when delivering pesticide shipments to the mixing/loading site. States may have in effect additional requirements regarding wellhead setbacks and operational containment.

Product must be used in a manner that will prevent back siphoning in wells, spills or improper disposal of excess pesticide, spray mixtures or rinsates.

GENERAL APPLICATION INSTRUCTIONS (9.0)

Portfolio CA Herbicide may be applied to soil as a preplant incorporated treatment or as a pre-emergence (prior to weed and/or crop emergence) surface application. Additional application methods include post-plant treatments, over-the-top and layby, in various crops. Application methods are defined in the following Crop Use Directions sections.

Preplant incorporated treatments require a uniform surface application followed by incorporation. Do not incorporate to a depth greater than 2 inches which may result in poor weed control. Care must be taken not to create overlaps in treated zones due to soil movement, which will result in excessive Portfolio CA Herbicide rates that could result in adverse crop response.

All soil applications and the residual activity of post-plant applications of Portfolio CA Herbicide require adequate moisture for herbicidal activation. The ultimate amount of moisture, whether supplied by rainfall or irrigation, is dependent on several factors. These factors include but are not limited to existing soil moisture at application, soil type, organic matter and tilth. In crop situations dependent on rainfall, Portfolio CA Herbicide can await activating moisture for extended periods (10 to 14 days or longer) depending on the soil parameters described above. Once activated, Portfolio CA Herbicide will provide activity on existing weeds. The level of activity will depend on the weed species and their size at time of activation. Where irrigation is not available and rainfall has not provided activation, particularly for surface applications of Portfolio CA Herbicide, a shallow incorporation is recommended for destruction of any germinating weeds and to incorporate Portfolio CA Herbicide. Herbicide incorporation will initiate the process of activation with existing soil moisture. In circumstances where prolonged periods without rainfall and/or irrigation is not possible, alternative or additional weed management practices (cultivation or post-applied herbicides) may be required.

Extreme care must be exercised and the Crop Specific Use Directions followed exactly in crops allowing post plant applications of Portfolio CA Herbicide. Over-the-top and lay-by applications will provide contact and residual weed control, depending on species. The addition of surfactants may increase contact weed control performance but may also increase the risk of adverse crop response as well.

CALIFORNIA ONLY SPECIFIC RESTRICTIONS ON APPLICATIONS OF PORTFOLIO CA HERBICIDE. (9.1)

Artificial Recharge Basins. Do not use below the high water line inside artificial recharge basins (a surface facility, such as an infiltration pond or basin, or spreading ground that is specifically designed and managed to increase the infiltration of introduced surface water supplies into a ground water basin), unless this product is applied six months or more before the basin is used to recharge ground water.

Unlined Canals and Ditches. Do not use below the high water line inside unlined canals and ditches unless either (a) the pesticide user can document that the percolation rate of the canal or ditch is equal to or less than 0.2 inches per hour (0.002 gallons per minute per square foot), or (b) the pesticide is applied six months before water is run in the canal or ditch.

Rights-of-Way. Do not use on engineered rights-of-way in areas established by the California Department of Pesticide Regulation as leaching or runoff ground water protection areas* unless either (a) any runoff from the treated right-of-way shall pass through a noncrop fully vegetated area adjacent, and equal in area, to the treated area, or spread out onto an adjacent unenclosed fallow field that is at least 300 feet long and that will not be irrigated for six months following application with the exception of the addition of adequate moisture that is required for herbicidal activation following application as described under General Application Instructions, with full consideration of any plantback restrictions, or (b) the property operator complies with any permit issued pursuant to the storm water provisions of the federal Clean Water Act eprtaining to the treated area.

Runoff Ground Water Protection Areas. Do not use in areas identified by the California Department of Pesticide Regulation as a runoff ground water protection areas* unless one of the following management practices can be met:

(a) Soil disturbance. Within seven days before this product is applied, the soil to be treated shall be disturbed by using a disc, harrow, rotary tiller, or other mechanical method. This subsection does not apply to the area to be treated that is immediately adjacent to the crop row and that does not exceed 33 percent of the distance between crop rows or, in citrus, to the band from the tree row to the dripline; or

(b) Incorporation of the pesticide. Within 48 hours after the day this product is applied, the pesticide shall be incorporated on at least 90 percent of the area treated; using a disc, harrow, rotary tiller, or other mechanical method, or by sprinkler or low flow irrigation, including chemigation where allowed by the label, using a minimum of ¼ inch of irrigation water and a maximum of one inch as described under General Application Instructions, at application rates that do not cause surface water runoff from the treated property or to wells on the treated property; or

(c) Band treatment. This product is applied as a band treatment immediately adjacent to the crop row so that not more than 33 percent of the distance between rows is treated or, in citrus, not more than the area from the tree row to the dripline is treated; or

(d) Timing of application. This product is applied between April 1 and July 31; or

(e) Retention of runoff on field. For six months following the application, the field shall be designed, by berms, levees, or nondraining circulation systems, to retain all irrigation runoff and all precipitation on, and drainage through, the field. The retention area on the field shall not have a percolation rate of more than 0.2 inches per hour (5 inches per 24 hours); or

(f) Retention of runoff in a holding area off the field. For six months following the application, all runoff shall be channeled to a holding area off the application site, under the control of the property operator, that is designed to retain all irrigation runoff and all precipitation on, and drainage through, the treated field and all other areas draining into that holding area. The holding area shall not have a percolation rate of more than 0.2 inches per hour (5 inches per 24 hours); or

(g) Runoff onto a fallow field. For six months following application, runoff shall be managed so that it runs off onto an adjacent unenclosed fallow field at least 300 feet long that is not irrigated for six months after application with the exception of the addition of adequate moisture that is required for herbicidal activation following application as described under General Application Instructions, with full consideration of any plant back restrictions.

Leaching Ground Water Protection Areas. Do not apply in areas designated by the California Department of Pesticide Regulation as leaching ground water protection areas* unless either (a) the user does not apply any irrigation water for six months following application of this product or (b) the user applies this product to the planting bed or the berm above the level of irrigation water in the furrow or basin and the water level shall remain at or below that level for six months following application of the pesticide with the exception of the addition of adequate moisture that is required for herbicidal activation following application as described under General Application Instructions, or (c) irrigation is managed so that the ratio of the amount of irrigation water applied divided by the net irrigation requirement is 1.25 or less for six months following application of this product.

* Consult with your County Agricultural Commissioner to determine whether the application will be within an area designated by the California Department of Pesticide Regulation as either a Runoff Ground Water Protection Area or a Leaching Ground Water Protection Area. Details regarding the locations of these Areas are also available via the internet at www.cdpr.ca.gov/docs/emon/ grndwtr/gwp_regs.htm.

PORTFOLIO CA HERBICIDE PRODUCT USE RATES (10.0)

The following directions for the selection of Portfolio CA Herbicide application rates are critical to achieve maximum performance and to insure maximum crop safety. The user is required to read and follow the specific Portfolio CA Herbicide use directions and restrictions for each crop as defined in subsequent sections of this label. The user is cautioned that some crops respond differently to Portfolio CA Herbicide. This response is governed by the Portfolio CA Herbicide application rate, various soil factors and inherent crop sensitivity. The Crop Specific Use Directions have been designed to minimize the risk of adverse crop response while maintaining optimum weed control.

Mode of Action (10.1)
Sulfentrazone, the active ingredient in Portfolio CA Herbicide, is a potent inhibitor of the enzyme Protoporpyrinogen Oxidase IX (PPO IX) required for the formation of chlorophyll. Inhibition of PPO IX enzyme results in the liberation of singlet oxygen (O) that, in turn, disrupts cellular membranes and causes cellular leakage. The ultimate manifestation of the process is cellular death leading to plant death. The selective herbicidal activity of sulfentrazone is based on its greater affinity for the PPO IX enzyme in weed species versus crop plants.

Mechanism of Action (10.2)
Following the application of Portfolio CA Herbicide to soil, germinating seeds and seedlings take up sulfentrazone from the soil solution. The amount of sulfentrazone in soil solution, and available for weed uptake, is determined primarily by soil type, organic matter and soil pH. Sulfentrazone adsorbs to the clay and organic matter (OM) fractions of soils; effectively limiting the amount of active ingredient immediately available to control weeds. Soils typically increase in clay content through the series from coarse to fine as noted in the following Soil Classification Chart, Table 1.

SOIL CLASSIFICATION CHART

Table 1

COARSE	MEDIUM	FINE
Sand	Sandy clay loam	Silty clay loam
Loamy sand	Sandy clay	Silty clay
Sandy loam	Loam	Clay loam
	Silt loam	Clay
	Silt	

Influence of Soil type, organic matter and pH on Portfolio CA Herbicide Use Rates and Crop Response
Soil organic matter content can vary widely and independently of soil type and requires an accurate analysis of representative soil samples to determine its content.

Soil pH also exerts a dramatic affect on sulfentrazone availability in the soil solution. As soil pH increases, sulfentrazone availability increases. Accurate soil pH information will require an accurate analysis of representative soil samples.

The total amount of sulfentrazone available in solution, in any given soil, is determined by the interaction of soil type (clay content), % organic matter and pH. The application timing (relative to the emergence of the crop and weeds) and amount of rainfall and/or irrigation received will ultimately determine, in conjunction with the soil parameters and pH, the amount of sulfentrazone in soil solution. It is important to note that Portfolio CA Herbicide can await activating moisture. However, diminished weed control may result due to the successive increase in weed growth versus timing of activation.

It is important to note that irrigation with highly alkaline water (high pH) following a Portfolio CA Herbicide soil application can also significantly increase the amount of sulfentrazone available in the soil solution. Irrigation with water having a pH greater than 7.5 could result in adverse crop response. This response will ultimately depend on initial Portfolio CA Herbicide application rate, timing, amount and pH of irrigation water and sensitivity of the crop and it's growth stage when irrigated. The risk of adverse crop response will lessen with the advance in growth stage among most crops.

The following Crop Specific Use Directions have been designed with specific Portfolio CA Herbicide recommendations for each crop based on the soil type, soil organic matter, and soil pH interactions described above. The user is cautioned that crop tolerance and weed control performance are based on strict adherence to these recommendations.

APPLICATION INFORMATION (11.0)

Ground Application

Utilize a boom and nozzle sprayer equipped with the appropriate nozzles, spray tips and screens and adjusted to provide optimum spray distribution and coverage at the appropriate operating pressures. Utilize nozzles that produce minimal amounts of fine spray droplets to avoid spray drift or inadequate foliar and/or soil coverage. Apply a minimum of 10 gallons of finished spray per acre by ground. Be aware that overlaps and slower ground speeds while starting, stopping or turning while spraying may result in excessive application and subsequent crop response.

Do not apply when wind speed favors drift beyond the area intended for treatment.

Aerial Application (11.2)

Use nozzle types and arrangements that will provide optimum coverage while producing a minimal amount of fine droplets. Apply sufficient spray volume to achieve adequate coverage. Apply a minimum of 5 gallons of finished spray per acre.

Do not apply when wind speed favors drift beyond the area intended for treatment.

Chemigation Application (11.3)

Portfolio CA Herbicide may be applied through sprinkler irrigation systems including center pivot, lateral move, end tow, solid set, or hand move irrigation systems. Do not apply this product through any other type of irrigation system. Do not connect any irrigation system (including greenhouse systems) used for pesticide application to a public water system. Crop injury, lack of effectiveness or illegal residues on or in the crop can result from non-uniform distribution of treated water. If you have questions about calibration, you should contact State Extension Service specialists, equipment manufacturers, or other experts. A person knowledgeable of the chemigation system and responsible for its operation, or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.

It is important to note that irrigation with highly alkaline water (high pH) following a Portfolio CA Herbicide soil application can also significantly increase the amount of sulfentrazone available in soil solution. Irrigation with water having a pH greater than 7.5 could result in adverse crop response. This response will ultimately depend on initial Portfolio CA Herbicide application rate, application timing, amount and pH of the irrigation water, and the sensitivity of the crop and the growth stage when irrigated. The risk of adverse crop response will lessen with advancing growth stages of most crops.

The system must contain a functional check valve, vacuum relief valve, and low-pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow. *The pesticide injection pipeline must also contain a functional, automatic, quick-closing check valve to* prevent the flow of fluid back toward the injection pump. The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the

supply tank when the irrigation system is either automatically or manually shut down. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops. The irrigation line water pump must include a functional pressure switch, which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.

Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

Portfolio CA Herbicide should be metered into the irrigation system continuously for the duration of the water application. Portfolio CA Herbicide should be diluted in sufficient volume to insure accurate application over the area to be treated. Use the appropriate amount of water to carry the product to the soil surface. Continuous agitation is required to maintain product suspension in the solution tank. A jar test should be conducted to ensure that phase separation would not occur during dilution and application. Failure to achieve a uniform dilution throughout the time of application may result in undesirable residues or less than desirable weed control. Flush the lines at the completion of the application and then turn the water off promptly.

When using water from public water systems; DO NOT APPLY Portfolio CA Herbicide THROUGH ANY IRRIGATION SYSTEM **PHYSICALLY CONNECTED** TO A PUBLIC WATER SYSTEM. Public water system means a system for the provision to the public of piped water for human consumption if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days of the year. Portfolio CA Herbicide may be applied through irrigation systems, which may be **supplied** by a public water system **only if** water from the water system is discharged into a reservoir tank prior to pesticide introduction. There shall be a complete physical break (air gap) between the outlet end of the fill pipe and to top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe. Before beginning chemigation, always make sure that the air gap exists and that there is no blockage of the overflow of the reservoir tank.

Application with Dry Fertilizers (11.40)

Portfolio CA Herbicide may be applied impregnated on dry fertilizers. When applied as directed with adequate soil coverage, Portfolio CA Herbicide dry bulk fertilizer mixtures will provide satisfactory weed control.

Follow all Portfolio CA Herbicide label directions regarding product use rates per acre, registered crops, incorporation, special instructions and precautions.

Apply Portfolio CA Herbicide/dry fertilizer mixtures with ground equipment only.

All individual state regulations relating to dry bulk fertilizer blending, registration, labeling, and application are the responsibility of the individual and/or company preparing, storing, transporting, selling or applying the Portfolio CA Herbicide /dry fertilizer mixture.

Impregnation Directions (11.41)

To impregnate Portfolio CA Herbicide on dry bulk fertilizer, use a closed rotary-drum mixer or other commonly used dry bulk fertilizer blender equipped with suitable spray equipment.

Prepare a slurry of Portfolio CA Herbicide in a clean container using clear water. Slowly add the Portfolio CA Herbicide /water slurry to the impregnation spray tank and finish filling as needed with clear water. Spray nozzles must be placed to provide uniform coverage of Portfolio CA Herbicide onto the fertilizer during mixing.

Refer to the SPRAYER EQUIPMENT CLEAN-OUT section for directions for cleaning impregnation equipment, transport equipment, loading equipment and application equipment.

Apply the Portfolio CA Herbicide dry bulk fertilizer with an accurately calibrated dry fertilizer spreader. The Portfolio CA Herbicide dry bulk fertilizer mixture must be spread uniformly on the soil surface. Uneven spreading leaving untreated areas can cause poor weed control or overlapping areas with potential increased Portfolio CA Herbicide use rates could result in possible crop response.

A minimum of 200 pounds of dry bulk fertilizer impregnated with the recommended amount of Portfolio CA Herbicide must be applied per acre to achieve adequate soil coverage for satisfactory weed control.

DO NOT impregnate Portfolio CA Herbicide onto coated ammonium nitrate or limestone because these materials will not absorb the herbicide.

Refer to the appropriate crop section of the Portfolio CA Herbicide label to determine the rate of Portfolio CA Herbicide to be applied per acre. Use the following table to determine the amount of Portfolio CA Herbicide to be impregnated on a ton (2000 pounds) of dry bulk fertilizer based on the rate of fertilizer that will be applied per acre.

For those rates not listed in the following table, calculate the amount of Portfolio CA Herbicide to be impregnated on a ton of dry bulk fertilizer using the following formula:

$$\frac{2000}{\text{Pounds dry fertilizer per acre}} \times \text{Portfolio CA use rate in fluid ounces per acre} = \text{ounces of Portfolio CA to be applied per ton of fertilizer}$$

RATE CHART FOR IMPREGNATION OF DRY BULK FERTILIZERS WITH PORTFOLIO CA Herbicide
Table 2

	Ounces Portfolio CA Herbicide per ton of fertilizer		
	Portfolio CA Herbicide Use Rate Per Acre		
Dry Fertilizer Rate (lb/acre)	8.0 Fluid Ounces per Acre	10.1 Fluid Ounces per Acre	12.0 Fluid Ounces per Acre
200	80	101	120
250	64	80.8	96
300	53.3	67.3	80
350	45.7	57.7	68.6
400	40	50.5	60
450	35.6	44.9	53.3

Application with Liquid Fertilizer (11.42)

Portfolio CA Herbicide may be applied using liquid fertilizer solutions as the carrier. The fertilizer solutions may either be concentrate formulations as blended or diluted with water. When applied as directed with adequate soil coverage, Portfolio CA Herbicide applied with liquid fertilizer mixtures will provide satisfactory weed control. However, adequate soil coverage is essential to achieve acceptable levels of weed control.

Herbicide mixing, solution stability and/or compatibility problems can occur when liquid fertilizers are used as a carrier. Compatibility tests must be conducted prior to mixing to insure tank mixture compatibility and stability. The use of compatibility agents may be beneficial to achieve and maintain a homogenous solution.

Mixing Instructions for Liquid Fertilizer Applications (11.43)

Fill the clean spray tank to one half of the total volume with the fertilizer solution. Start the spray tank agitation system. Prepare a slurry of Portfolio CA Herbicide in a clean container with clean water using equal volumes of Portfolio CA Herbicide and clean water. Slowly add the Portfolio CA Herbicide /water slurry to the spray tank. Carefully rinse the slurry container, adding the rinsate to the spray tank. Better mixing of the Portfolio CA Herbicide /water slurry may be achieved if the slurry is added using induction systems on the sprayer fill plumbing system.

Complete filling the spray tank to the desired level. Sufficient and continuous spray tank agitation is required at all times to maintain a homogenous spray solution. The spray system must be designed such that there is sufficient flow capacity to uniformly apply the spray mixture and maintain adequate tank agitation. Some systems may require separate pumps to simultaneously supply the spray system and the spray tank agitation system. Insure the Portfolio CA Herbicide slurry is thoroughly mixed before application.

For tank mixtures with other herbicide(s), a compatibility test must be conducted to insure product compatibility before mixing. Read and follow all the directions, precautions and restrictions of the tank mixture products prior to mixing.

Apply the Portfolio CA Herbicide spray mixture immediately after mixing. Do not store the sprayer overnight or for any extended period of time with the Portfolio CA Herbicide spray mixture remaining in the tank.

Do not premix Portfolio CA Herbicide spray solutions in nurse tanks.

Follow all Portfolio CA Herbicide label directions regarding product use rates per acre, registered crops, application instructions, incorporation directions, special instructions and all precautions.

All individual state regulations relating to liquid fertilizer blending, storage, transportation, registration, labeling, and application are the responsibility of the individual and/or company preparing, selling or applying the Portfolio CA Herbicide and fertilizer mixture.

SPRAY DRIFT REDUCTION ADVISORY (12.0)

To avoid drift, do not apply when wind speeds exceed 10 mph. Do not exceed spray pressures of 40 psi unless specified by the manufacturer of drift reducing spray tips and nozzles.

Spray Drift Management (12.1)

AVOIDING SPRAY DRIFT AT THE APPLICATION SITE IS THE RESPONSIBILITY OF THE APPLICATOR AND THE GROWER.

The interaction of many equipment and weather related factors determine the potential for spray drift. The applicator and the grower are responsible for considering all these factors when making decisions.

The following drift management requirements must be followed to avoid off-target movement from aerial applications. These requirements do not apply to forestry applications, public health uses or to applications of dry materials.

1. The distance of the outermost nozzles on the boom must not exceed ¾ the length of the wingspan or rotor.
2. Nozzles must always point backward parallel with the air stream and never be pointed downwards more than 45 degrees.
3. Observe the regulations of the State where applications are made.
4. Applicators must observe and abide by the requirements of the Aerial Drift Reduction Advisory.

Information on Droplet Size

The most effective way to reduce drift potential is to apply large droplets. The best drift management strategy is to apply the largest droplets that provide sufficient coverage for pesticide performance. Applying larger droplets reduces drift potential but will not prevent drift if applications are made improperly or under unfavorable environmental conditions. (See information on Wind, Temperature and Humidity, and Temperature Inversions in subsequent sections).

Controlling Spray Droplet Size (12.3)

Volume – Use high flow rate nozzles to apply the greatest practical spray volume. Nozzles with higher rated flow generally produce larger droplets.

Pressure - When higher flow rates are needed, use higher flow rate nozzles rather than increasing spray pressure.

Do not exceed the nozzle manufacturer's recommended pressures. Lower pressure produces larger droplets in many types of nozzles.

Number of Nozzles – Use the minimum number of nozzles that provide uniform coverage.

Nozzle Orientation – For aerial application, the recommended practice is to orient nozzles so that the spray is released parallel to the airstream. This orientation usually produces larger droplets as compared to other nozzle orientations. Significant nozzle deflection from horizontal will reduce droplet size and increase drift potential.

Nozzle Type - Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low drift nozzles for both ground and aerial applications. Solid stream nozzles oriented straight back usually produce the largest droplets and the lowest drift potential in aerial applications

Boom Length – For some aerial use patterns, reducing the effective boom length to less than ¾ of the wingspan or rotor length may further reduce drift without reducing swath width.

Application Height - Aerial applications should not be made at a height greater than 10 feet above the top of the target plant canopy unless a greater height is required for aircraft safety. Making applications at the lowest height that is safe reduces exposure of droplets to evaporation and wind.

Swath Adjustment – When aerial applications are made with a crosswind, the swath will be displaced downwind. Therefore, on the upwind and downwind edges of the field, the applicator must compensate for this displacement by the path of the aircraft upwind. Swath adjustment or offset distance should increase when conditions favor increased drift potential (higher winds, smaller droplets, etc).

Wind – Drift potential is lowest between wind speeds of 3-10 mph. However, many factors, including droplet size and equipment type determine drift potential at any given wind speed. Application should be avoided below 3 mph due to variable wind direction and high inversion potential. NOTE: Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they may potentially affect spray drift .

Temperature and Humidity – When making applications in low relative humidity, set up equipment to produce larger droplets to compensate for evaporation. Droplet evaporation is most severe when conditions are both hot and dry.

Temperature Inversions – Applications should not occur during a temperature inversion because drift potential is high. Temperature inversions restrict vertical air mixing, which causes small-suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions due to the low speed and variable winds common during inversions. Temperature inversions are characterized by increasing temperatures with altitude and are common during conditions of limited cloud cover and little to no wind. They often begin to form as the sun sets and may often continue into the morning. The presence of a temperature inversion may be indicated by ground fog. However if fog is not present, the movement of smoke from a ground source or an aircraft smoke generator can also identify inversions. Smoke that remains in layers and moves laterally in a concentrated cloud (under low speed wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.

Sensitive Areas – The pesticide should only be applied when the wind is blowing away from sensitive areas (e.g. residential areas, bodies of water, known habitat for threatened or endangered species, non-target crops).

Off-Target Movement of Portfolio CA Herbicide

Drift of dilute spray mixtures containing Portfolio CA Herbicide must be prevented. Observation of the preceding environmental conditions, correct application equipment design, calibration and application practices will significantly diminish the risk of off-target spray drift. Portfolio CA Herbicide can cause significant symptomology by drift on to sensitive crops and other plants. This symptomology may manifest initially as discreet, localized spots where contacted by Portfolio CA Herbicide drift mixtures. Depending on concentration of the spray solution and droplets size (effectively determining the dosage of sulfentrazone) and also depending on the inherent sensitivity of the plants involved, these spots or lesions may or may not coalesce. These effects will usually not have lasting effects on plant growth, but will likely reduce the value of affected fruit or foliage where grade or quality is associated with appearance. In severe drift instances with particularly sensitive crops, defoliation of affected foliage could result. Failure to follow these guidelines and environmental prohibitions that then result in off-target movement or drift of Portfolio CA Herbicide on to unintended crops or plants, irrespective of severity, constitutes misapplication of this product. FMC accepts no responsibility or liability for potential crop effects that may result from such misapplication of Portfolio CA Herbicide.

MAXIMUM ALLOWABLE PORTFOLIO CA HERBICIDE USE PER ACRE PER 12 MONTH PERIOD* (13.0)

Refer to the crop section of this label for specific product use directions.
Table 3

Crop	Ounces Portfolio CA Herbicide Per Acre	Pound Active Sulfentrazone Per Acre
Row Crops		
Corn	12.0	0.375
Fallow	8.0	0.25
Peanuts	9.6	0.30
Potatoes	8.0	0.25
Soybeans	12.0	0.375
Sugarcane	12.0	0.375
Sunflowers	8.0	0.25
Tobacco	8.0	0.375
Vegetable Crops		
Asparagus	12.0	0.375
Cabbage	12.0	0.375
Dry Beans & Peas	8.0	0.25
Horseradish	8.0	0.25
Oil Crops		
Mint	12.0	0.375

*The total allowed usage per twelve-month period includes all applications made to the field per twelve-month interval. This includes fallow treatments, burndown treatments, planting time and all in-season treatments. The twelve-month period is considered to begin upon the initial Portfolio CA Herbicide application.

CROP ROTATIONAL RESTRICTIONS (14.0)

The following Table 4 shows the minimum interval in months from the time of the last Portfolio CA Herbicide application until Portfolio CA Herbicide treated soil can be replanted to the crops listed. When Portfolio CA Herbicide is tank mixed with another herbicide, refer to the partner label for recropping instructions, following the directions that are most restrictive.

For all other crops not listed below, the rotational interval is a minimum of 12 months. Some crops have rotational intervals greater than 12 months after a Portfolio CA Herbicide application due to potential crop injury. A representative bioassay of the field shall be completed with the rotational crop to accurately determine the planned crop's sensitivity to sulfentrazone.

CROP ROTATIONAL RESTRICTIONS**
Table 4

Crop	Interval (Months)
Asparagus	Anytime
Barley	4
Cabbage	Anytime
Canola	24
Cereal Grains (Buckwheat, Oats, Pearl Millet, Proso Millet, Teosinte, Wild Rice)	12
Corn, Field	10
Corn, Pop	18
Corn, Sweet	18
Cotton	18
Dry Shell Peas and Beans	Anytime
Horseradish	Anytime
Limas	Anytime
Mint	Anytime
Peanuts	Anytime
Potatoes	Anytime
Rice	10
Rye	4
Sorghum	10 *
Soybeans	Anytime
Sugar Beets	36
Sugarcane	Anytime
Sunflowers	Anytime
Sweet Potatoes	12
Triticale	4
Tobacco	Anytime
Turf	Anytime
Wheat	4

*Sorghum – 18-month rotation for rates above 8.0 oz/acre
**For all other crops not listed, the rotation interval is a minimum of 12 months.

BAND TREATMENT APPLICATIONS (15.0)

For band treatments, apply the broadcast equivalent rate and volume per acre. To determine these:

Band Width Inches / Row Width Inches	X	Broadcast Rate Per Acre	=	Band Rate
Band Width Inches / Row Width Inches	X	Broadcast Volume Per Acre	=	Band Volume

MIXING AND LOADING INSTRUCTIONS (16.0)

Portfolio CA Herbicide may be applied alone, or in tank mixtures with other herbicides for the control of additional weed species. Mixtures with some other pesticides have not been tested. Conduct appropriate compatibility tests prior to tank mixing with other pesticides. Follow all precautions and restrictions on the tank mix partner label.

It is important that spray equipment is clean and free of existing pesticide residues before preparing Portfolio CA Herbicide spray mixtures. Follow the spray tank clean out procedures specified on the label of the product or products previously applied.

For best results fill spray tank with one half of the volume of clean water needed for the field to be treated. Start agitation system. Prepare a slurry of Portfolio CA Herbicide in a clean container using clean water. Slowly add the Portfolio CA Herbicide /water slurry to the spray tank. Carefully rinse the slurry container, adding the rinsate to the spray tank. Complete filling the spray tank to the desired level. Continuous spray tank agitation is required at all times to maintain a uniform spray solution.

Make sure Portfolio CA Herbicide is thoroughly mixed before application or before adding another product to the spray tank.

Use the Portfolio CA Herbicide spray mixture immediately after mixing. Do not store the sprayer overnight or for any extended period of time with the Portfolio CA Herbicide spray mixture remaining in the tank.

Do not premix Portfolio CA Herbicide spray solutions in nurse tanks.

If Portfolio CA Herbicide is tank mixed with other herbicides, all additional directions, restrictions and precautions for the tank mixture herbicides must be followed.

SPRAYER EQUIPMENT CLEAN-OUT (17.0)

As soon as possible after spraying Portfolio CA Herbicide and before using sprayer equipment for any other applications, the sprayer must be thoroughly cleaned to avoid potential crop affects using the following procedure. Residues left in mixing equipment, spray tanks, hoses, spray booms and nozzles can cause crop effects if they are not properly cleaned. In addition, users must take appropriate steps to ensure proper equipment clean-out for any other products mixed with Portfolio CA Herbicide as required on the other product labels. More complete cleaning can be achieved if the spray system is cleaned immediately following the application.

1. Drain sprayer tank, hoses, spray boom and spray nozzles. Use a high-pressure detergent wash to remove physical sediment and residues from the inside of the sprayer tank and thoroughly rinse. Then, thoroughly flush sprayer hoses, spray boom and spray nozzles with a clean water rinse. Remove and clean spray tips and all filters and screens (tank, spray hose and spray tips) separately in the ammonia solution of Step 2.

2. Next, prepare a sprayer cleaning solution by adding three gallons of ammonia (containing at least 3% active) per 100 gallons of clean water. Prepare sufficient cleaning solution to allow the operation of the spray system for a minimum of 15 minutes to thoroughly flush hoses, spray boom and spray nozzles.

3. Convenient and thorough cleaning of the sprayer can be achieved if the ammonia solution or fresh water is left in the spray tank, hoses, spray booms and spray nozzles overnight or during storage.

4. Before using the sprayer, completely drain the sprayer system. Rinse the tank with clean water and flush through the hoses, spray boom, and spray nozzles with clean water. Remove and clean spray tips and all filters and screens (tank, spray hose and spray tip) separately in an ammonia solution.

5. Properly dispose of all cleaning solution and rinsate in accordance with Federal, State, and local regulations and guidelines.

Do not apply sprayer cleaning solutions or rinsate to sensitive crops.

Do not store the sprayer overnight or for any extended period of time with Portfolio CA Herbicide spray solution remaining in the tank, spray lines, spray boom plumbing, spray nozzles or strainers.

If the sprayer has been stored or idle, purge the spray boom and nozzles with clean water before beginning any application.

Should small quantities of Portfolio CA Herbicide remain in inadequately cleaned mixing, loading and/or spray equipment, they may be released during subsequent applications potentially causing effects to certain crops and other vegetation. FMC accepts no liability for any effects due to inadequately cleaned equipment.

Do not drain of flush equipment on or near desirable trees or plants.

Do not contaminate any body of water including irrigation water that may be used on other crops.

WEEDS LIST (18.0)

When Portfolio CA Herbicide is applied in accordance with the General Application information and the specific crop use directions, Portfolio CA Herbicide applied alone or in recommended tank mixtures will provide control of the following weeds. Refer to the specific crop section.

Table 5

Scientific Name	Scientific Name
Amaranth, livid	*Amaranthus lividus*
Amaranth, Palmer	*Amaranthus palmeri*
Amaranth, Powell	*Amaranthus Powell II*
Amaranth, spiny	*Amaranthus spinosus*
Amaranth, spleen	*Amaranthus dubius*
Anoda, spurred	*Anoda cristata*
Bedstraw, catchweed	*Galium aparine*
Carpetweed	*Mollugo verticillata*
Chickweed, common	*Stellaria media*
Copperleaf, hophornbeam	*Acalypha ostryeafolia*
Copperleaf, Virginia	*Acalypha virginica*
Crabgrass, large	*Digitaria sanguinalis*
Crabgrass, smooth	*Digitaria ischaemum*
Crabgrass, Southern	*Digitaria ciliaris*
Croton, tropic	*Croton glandulosus*

Crownbeard, golden	*Verbesina encelioides*
Cupgrass, wooly	*Erichloa villosa*
Cyperus, hedgehog	*Cyperus compressus*
Daisy, American	*Eclipta alba*
Devilsclaw	*Proboscidea louisiana*
Dock, curly	*Rumex crispus*
Eclipta	*Eclipta prostrata*
Filaree, redstem	*Erodium cicutarium*
Flixweed	*Descurainia sophia*
Galinsoga, hairy	*Galinsoga ciliata*
Goosegrass	*Eleusine indica*
Groundcherry, clammy (seedling)	*Physalis heterophylla*
Groundcherry, cutleaf	*Physalis angulata*
Jimsonweed	*Datura stramonium*
Kochia (ALS and Triazine Resistant)	*Kochia scoparia*
Ladysthumb	*Polygonum persicaria*
Lambsquarters, common	*Chenopodium album*
Lettuce, miners	*Montia perfoliata*
Mallow, common	*Malva neglecta wall r.*
Mayweed, Chamomile	*Anthemis cotula l.*
Milkweed, honeyvine	*Ampelamus albidus*
Morningglory, entireleaf	*Ipomoea hederacea integriuscula*
Morningglory, ivyleaf	*Ipomoea hederacea hederacea*
Morningglory, palmleaf	*Ipomoea wrightii*
Morningglory, purple	*Ipomoea turbinata*
Morningglory, red	*Ipomoea, coccinea L.*
Morningglory, scarlet	*Ipomoea coccinea*
Morningglory, smallflower	*Jacquemontia tamnifolia*
Morningglory, tall	*Ipomoea, purpurea*
Mustard, tumble	*Sisybrium altissimum*
Nightshade, black	*Solanum nigrum*
Nightshade, Eastern black	*Solanum ptycanthum*
Nutsedge, purple	*Cyperus rotundus*
Nutsedge, yellow	*Cyperus esculentus*
Orchardgrass	*Dactylis glomerata*
Panicum, fall	*Panicum dichotomiflorum*
Pigweed, redroot	*Amaranthus retroflexus*
Pigweed, smooth	*Amaranthus hybridus*
Plantain, blackseed	*Plantago rugelii decne*
Plantain, narrow-leaved	*Plantago lanceolata*
Poorjoe	*Diodia teres*
Porophyllum	*Porophyllum rederale*
Poinsettia, wild	*Euphorbia heterophylla*
Purslane, common	*Portulaca oleracea*
Redmaids	*Calandrinia ciliata*
Redweed	*Melochia corchorifolia*
Sedge, annual	*Carex spp.*
Senna, coffee	*Cassia occidentalis*
Sheperdspurse	*Capsella bursa-pastoris*
Sida, prickly	*Sida spinosa*
Sida, Southern	*Sida acuta*
Signalgrass, broadleaf	*Brachiaria platyphylla*
Smartweed, PA (seedling)	*Polygonum pensylvanicum*
Smellmellon	*Cucumis melo*
Starbur, bristly	*Acanthospermum hispidum*
Stinkgrass	*Eragrostis cilianensis*
Toadflax, yellow	*Linaria vulgaris*
Tassleflower, red	*Emilio sonchifolia*
Thistle, Russian	*Salsola kali*
Waterhemp, common	*Amaranthus rudis*
Waterhemp, tall	*Amaranthus tuberculatos*
Waterprimrose, winged	*Ludwigia decurrens*
Witchgrass	*Panicum capillare*

REPLANTING INSTRUCTIONS (19.0)

If initial planting of labeled crops fails to produce a stand, only labeled crops for Portfolio CA Herbicide or the tank mix partner; whichever is most restrictive, may be planted. Do not retreat field with Portfolio CA Herbicide or other herbicide containing sulfentrazone. Do not plant treated fields with

any crop at intervals that are inconsistent with the R[illegible]onal Crop Guidelines on this label. When replantin[illegible]e minimum soil tillage to preserve the herbicide barrier and achieve maximum weed control.

ROW CROPS

CORN (Field Corn, Seed Corn, Popcorn) (For Use Only with GMO Varieties Tolerant to PPO Herbicides) (20.0)

Table 6

Portfolio CA Use Rate Table (Corn) Fall, Spring Early Preplant, Preemergence, and Preplant Incorporated Applications			
Broadcast Rate	**Fluid Ounces Portfolio CA per acre**		
	Soil Texture		
% Organic Matter	**Coarse**	**Medium**	**Fine**
<1.5	3.0 – 4.5	3.0 – 4.5	3.75 – 5.25
1.5-3.0	3.0 – 4.5	3.75 – 6.0	4.5 – 6.75
>3	3.75 – 6.0	4.5 – 6.75	6.0 – 8.0
Refer to the previous information on soil types under the COARSE, MEDIUM, and FINE categories Use higher rates for soils of pH less than 7.0 and lower rates for pH greater than 7.0 within the rate range.			

Preplant (Fall Applications) (20.1)
Portfolio CA Herbicide may be applied in the fall as a preplant treatment prior to corn planting the following spring.

Portfolio CA Herbicide can be used alone or in a tank mixture with other herbicides to control susceptible broadleaves, sedges and grasses in corn. Apply Portfolio CA in conventional tillage or conservation tillage (reduced tillage or no-tillage) cropping systems using rates recommended in the Table 6. Portfolio CA Herbicide should be applied to the stubble or soil surface and allow moisture from rainfall or snow to move the product into the soil. Do not mechanically incorporate in the fall or spring as this operation can destroy the herbicide barrier allowing weed escapes to occur. Do not apply to frozen soils or existing snow cover to prevent Portfolio CA Herbicide runoff from rain or snowmelt that may occur following application. Portfolio CA Herbicide may be tankmixed with other burndown herbicides to control emerged weeds in the fall or residual soil herbicides that are labeled for fall use on corn. Select the correct Portfolio CA Herbicide use rate for corn from the Table 6 for your soil type and organic matter. Due to the extended period of time between the fall application and corn planting, the use rate of Portfolio CA Herbicide should be the mid to high rate within the rate range for the appropriate soil type and organic matter.

Early Preplant and Preemergence (Spring Applications) (20.2)
Portfolio CA Herbicide may be applied preplant on the soil surface in the spring to control weeds in conventional and conservation tillage systems. Portfolio CA Herbicide can be applied from 45 days prior to planting until 3 days after planting as a preemergence broadcast or banded soil application if corn seedlings have not broken the soil surface and if the seed furrow is completely closed. For preemergence applications 14 to 45 days prior to planting, use the mid to high rate in the appropriate rate range for the soil and organic matter type listed in Table 6. Portfolio CA Herbicide can be tank mixed with other herbicides labeled for use in corn. To control insect pests such as cutworm or armyworm that may be present, Portfolio CA Herbicide may be tankmixed with insecticides including Mustang Max or Capture 2EC. If dry conditions persist following preemergence application of Portfolio CA Herbicide, a shallow incorporation may be needed to activate the herbicide. If weeds are emerged at the time of Portfolio CA Herbicide application, use a burndown herbicide in conjunction with Portfolio CA as needed. When planting into soil treated preplant with Portfolio CA Herbicide, minimize soil disturbance to maintain the herbicide barrier on the soil surface to achieve maximum weed control. Observe all precautions, instructions, and rotational cropping guidelines of each product's label when tank mixing, including all references to potential carryover and crop injury warnings or restrictions.

Preplant Incorporated (20.3)
Portfolio CA Herbicide may be applied as a Preplant Incorporated treatment in the spring prior to planting in reduced and conventional tillage corn. Portfolio CA Herbicide should be shallowly incorporated or mixed thoroughly into the soil to a maximum depth of 2 inches using a correctly adjusted implement such as a field cultivator, field finisher or disk harrow. Incorporating Portfolio CA Herbicide deeper than 2 inches may result in inconsistent weed control. Use the appropriate rate from Table 6 for the soil texture, organic matter, and pH level of the soil. Portfolio CA Herbicide can be tankmixed with other soil-applied herbicides and insecticides labeled for preplant incorporation in corn. Observe all precautions, instructions, and rotational cropping guidelines of each product's label when tank mixing, including all references to potential carryover and crop injury warnings or restrictions.

Portfolio CA Herbicide may be applied more than once to the same crop in split or sequential applications to provide season-long control of difficult-to-control existing or late emerging weeds.

Precautions
These Crop Specific Use directions are based upon the interactive effects of Portfolio CA Herbicide (sulfentrazone) and the primary soil and environmental factors, which affect its activity on various weed species and tolerance among crops. The user is required to observe the instructions and guidance previously presented under General Application Instructions, General Portfolio CA Herbicide Product Use Rates, Rotational Crop Guidelines, Replanting Instructions, Weed Controlled and any other section of this label pertinent to the anticipated crop use. It is important to note that not all varieties or cultivars of a given crop species have been evaluated under treatment with Portfolio CA Herbicide. Consult university or extension weed management specialists for additional information on specific local varieties or cultivars and any other pertinent information on Portfolio CA Herbicide under specific local conditions.

Restrictions
Do not apply more than 12.0 fluid ounces (0.375 pound active) per twelve-month period. The twelve-month period is considered to begin upon the initial Portfolio CA Herbicide application.

Do not use on soils classified as sand, which have less than 1% organic matter.

Do not apply to frozen soils or existing snow cover to prevent Portfolio CA Herbicide runoff from rain or snowmelt that may occur following application.

FALLOW OR POST HARVEST BURNDOWN (21.0)

Portfolio CA Herbicide may be applied in the fall following crop harvest or in existing fallow fields of asparagus, cabbage, corn, dry shell peas and beans, horseradish, limas, mint, peanuts, potatoes, soybeans, sugarcane, sunflowers and tobacco.

Table 7

Portfolio CA Herbicide Use Rate Table

(Fallow or Post Harvest Burnd i) Fall and Spring Fallow Applications			
Broadcast Rate	Fluid Ounces Portfolio CA Herbicide per acre		
	Soil Texture		
% Organic Matter	Coarse	Medium	Fine
<1.5	3.0 – 3.75	3.0 – 4.5	3.75 – 5.25
1.5-3.0	3.75 – 5.25	3.75 – 6.0	4.5 – 6.75
>3	4.5 – 6.0	4.5 – 8.0	5.25 – 8.0
Refer to the previous information on soil types under the COARSE, MEDIUM, and FINE categories Use higher rates for soils of pH less than 7.0 and lower rates for pH greater than 7.0 within the rate range.			

Fall Application (21.1)
Portfolio CA Herbicide may be applied in the fall following crop harvest or in existing fallow fields to control or suppress weeds the following season. The Portfolio CA Herbicide Rotational Crop Guidelines in Table 4 must be followed if crops are planted the next season. Portfolio CA Herbicide should be applied to the harvested crop stubble or soil surface without incorporation. Moisture in the form of rain or snow will move and activate the product. Do not mechanically incorporate in the fall or spring after application because this activity may destroy the herbicide barrier and weed escapes can occur. *Do not apply to frozen soils to prevent Portfolio CA Herbicide runoff from rain or snow that may occur following application. Portfolio CA Herbicide may* be tankmixed with herbicides to control emerged weeds. Sequential applications may be needed depending on weed size. In situations where weed size may interfere with Portfolio CA Herbicide reaching the soil surface, a separate burndown application prior to the application of Portfolio CA Herbicide will be required. Use full, recommended rates of burndown herbicides in combination with Portfolio CA Herbicide, or sequential applications as needed. Higher aerial spray volumes are required when there is a dense weed population or canopy.

Portfolio CA Herbicide can be tankmixed with other herbicides. Observe all precautions, instructions, and rotational cropping guidelines of each product's label when tank mixing, including all references to potential carryover and crop injury warnings or restrictions.

Spring Preemerge Application (21.2)
Portfolio CA Herbicide may be applied as a fallow treatment early in the spring provided the application is made prior to weed emergence, and adequate moisture is available to activate the Portfolio CA Herbicide. Follow the same use rate recommendations and application guidelines listed under the Fall Application section above.

Weeds Controlled
When applied according to directions, Portfolio CA Herbicide will provide control of:

Filaree, redstem	Pigweed, redroot
Kochia (ALS and Triazine Resistant)	Pigweed, smooth
Lambsquarters, common	Thistle, Russian
Morninggloy, ivyleaf	Waterhemp, common
Morningglory, tall	Waterhemp, tall
Nightshade, Eastern Black	

For information on other weeds not listed above, refer to Weeds Controlled section (Table 5) of this label.

Precautions
These Crop Specific Use directions are based upon the interactive effects of Portfolio CA He rbicide (su lfentrazone) and the primary soil and environmental factors, which affect its activity on various weed species and tolerance among crops. The user is required to observe the instructions and guidance previously presented under General Application Instructions, General Portfolio CA Herbicide Product Use Rates, Rotational Crop Guidelines, Replanting Instructions, Weed Controlled and any other section of this label pertinent to the anticipated crop use. It is important to note that not all varieties or cultivars of a given crop species have been evaluated under treatment with Portfolio CA Herbicide. Consult university or extension weed management specialists for additional information on specific local varieties or cultivars and any other pertinent information on Portfolio CA Herbicide under specific local conditions.

Use Restrictions
Do not apply more than 8.0 fluid ounces (0.25 lb active) per twelve-month period. The twelve-month period is considered to begin upon the initial Portfolio CA Herbicide application.

Do not use on soils classified as sand, which have less than 1% organic matter.

Do not apply to frozen soils or existing snow cover to prevent Portfolio CA Herbicide runoff from rain or snowmelt that may occur following application.

PEANUTS (22.0)
Apply Portfolio CA Herbicide alone or in combination with other registered herbicides for the control of key grass and broadleaf weeds in peanut production. Refer to the information below for specific use directions.

Application Instructions
Portfolio CA Herbicide may be preplant incorporated (to a depth no greater than 2 inches) up to 14 days prior to planting. Alternatively, Portfolio CA Herbicide may be applied to the soil surface at planting, or within 12 hours after planting. Incorporation of Portfolio CA Herbicide deeper than 2 inches can result in adverse crop response and/or inconsistent weed control. Do not use Portfolio CA Herbicide for "at-crack" type applications or apply to exposed peanut tissue. Such use can result in significant adverse crop response. For optimum performance, a combination of Portfolio CA Herbicide plus a grass herbicide labeled for peanuts is recommended. Under conditions of exceptionally high weed populations or when weeds not controlled by Portfolio CA Herbicide are anticipated, the use of suitable post-emergent peanut herbicides is recommended. Broadcast apply the correct Portfolio CA Herbicide use rate from Table 8 below, in a minimum of 10 gallons of water per acre of finished spray. Banded Portfolio CA Herbicide application rates must be adjusted in proportion to the broadcast rate.

Portfolio CA Herbicide Use Rates and Weeds Controlled in Coarse Soils[1]
Table 8
When applied, as directed, at 4.8 fluid ounces (0.15 pound active ingredient) per acre, Portfolio CA Herbicide will provide:
Control of the listed weeds.

Amaranth, spleen	Jimsonweed
Copperleaf, hophornbeam	Lambsquarters, common
Croton, tropic	Morningglory, entireleaf
Crownbeard, golden	Morningglory, red
Devilsclaw	

When applied, as directed, at 6.4 fluid ounces (0.2 lb ai/A active ingredient) per acre, Portfolio CA Herbicide will provide: Control of the listed weeds.

All the weeds controlled at 4.8 fl. ozs. plus:	
Amaranthus, Palmer	Morningglory, smallflower
Crabgrass, large	Poinsettia, wild [2]
Crabgrass, Southern	Redweed
Eclipta	Senna, coffee
Goosegrass	Signalgrass, broadleaf
Morningglory, pitted	Smartweed, PA (seedling)

When applied, as directed, at 8.0 fluid ounces (0.25 pound active ingredient) per acre, Portfolio CA Herbicide will provide: Control of the listed weeds.

All the weeds controlled at 6.4 fl. ozs. plus:	
Anoda, spurred	Purslane, common
Cocklebur, common	Sida, prickly
Nutsedge, yellow	Starbur, prickly
Nutsedge, purple [3]	

[1]Use rates are Portfolio CA Herbicide fluid ounces per acre. Specified weeds are controlled in coarse (sand and loamy sand) soils. Medium and fine soils (sandy loam, clay loam, clay) or soils with organic matter greater than 1.0% should use the next higher rate in Table 8 above. The next higher rate for 8.0 fluid ounces (0.25 lb ai) should not exceed 9.6 fluid ounces (0.3 lb ai) per acre.

[2] Controls initial and several continuing flushes (germinations) of wild poinsettia.

[3] Purple nutsedge activity is based on preplant incorporated applications of Portfolio CA Herbicide. Pre-emergence surface applications may provide control (>85%) under certain circumstances. Otherwise, purple nutsedge will be partially controlled (71 to 84%).

In soils with pH greater than 7, use the next lower Portfolio CA Herbicide application rate. Irrigation with alkaline (pH 8 to 9) water can result in adverse crop response. The extent of crop response is dependent on Portfolio CA Herbicide application rate, soil type (including %OM and pH), timing (after Portfolio CA application relative to crop emergence), amount and pH of irrigation water. Do not irrigate with water greater than pH 9.

After peanuts are established (4" to 6" across in size), the alkalinity of irrigation water has minimal impact on crop growth.

For information on other weeds not listed above, refer to Weed Controlled section (Table 5) in this label.

Precautions

These Crop Specific Use directions are based upon the interactive effects of Portfolio CA Herbicide (sulfentrazone) and the primary soil and environmental factors, which affect its activity on various weed species and tolerance among crops. The user is required to observe the instructions and guidance previously presented under *General Application Instructions*, *General Portfolio CA Herbicide Product Use Rates*, *Rotational Crop Guidelines*, Replanting Instructions, Weed Controlled and any other section of this label pertinent to the anticipated crop use. It is important to note that not all varieties or cultivars of a given crop species have been evaluated under treatment with Portfolio CA Herbicide. Consult university or extension weed management specialists for additional information on specific local varieties or cultivars and any other pertinent information on Portfolio CA Herbicide under specific local conditions.

Restrictions

Do not apply more than 9.6 fluid ounces (0.3 lb ai) of Portfolio CA Herbicide per acre per twelve-month period. The twelve-month period is considered to begin upon the initial Portfolio CA application.

Do not feed treated peanut forage or peanut hay to livestock.

Do not use on soils classified as sand, which have less than 1% organic matter.

Do not irrigate with water having a pH higher than 9.

Do not apply at cracking time.

POTATOES (23.0)

Table 9

Portfolio CA Herbicide Use Rate Table (Potatoes)
Preemergence Application

Broadcast Rate	Fluid Ounces Portfolio CA per acre		
	Soil Texture		
% Organic Matter	Coarse	Medium	Fine
<1.5	3.0 – 4.5	3.0 – 4.5	3.75 – 5.25
1.5-3.0	3.0 – 4.5	3.75 – 6.0	4.5 – 6.0
>3	4.5 – 6.0	5.25 – 6.75	6.0 – 8.0

*Refer to the previous information on soil types under the COARSE, MEDIUM, and FINE categories
Use higher rates for soils of pH less than 7.0 and lower rates for pH greater than 7.0 within the rate range.

Ground and Aerial Applications (23.1)

Apply Portfolio CA Herbicide by aerial application as a preemergence treatment following planting and after dragoff, but prior to potato emergence. Optimum performance can be achieved if Portfolio CA Herbicide is applied to the soil surface and either rainfall or overhead irrigation is used to activate the product. If no moisture is received within 7 days following application in areas without irrigation, a shallow incorporation (less than 2 inches) may be needed prior to weed and potato emergence to activate the product. Select the appropriate use rate based on soil texture and organic matter as shown in Table 9 above. For control of emerged weeds at the time of the Portfolio CA application, an appropriate burndown herbicide and adjuvants labeled for potatoes may be tankmixed with Portfolio CA to control these weeds. Do not apply Portfolio CA Herbicide if the potatoes have emerged from the soil as undesirable crop response may occur. Portfolio CA Herbicide may be tankmixed with other soil-applied herbicides labeled for use in potatoes to improve weed management and increase weed control spectrum.

Apply Portfolio CA Herbicide in a minimum of 10 gallons of spray by ground application and 5 gallons of spray by air.

Chemigation Applications (23.2)

Portfolio CA Herbicide may be applied to potatoes through sprinkler irrigation systems including center pivot, lateral move, end tow, solid set or hand move irrigation systems. Apply Portfolio CA Herbicide prior to potato emergence using sufficient water (0.25 to 0.5 inch per acre) to provide thorough soil surface coverage, but to avoid runoff of irrigation water. Portfolio CA Herbicide may be applied with other products labeled for chemigation use in potatoes.

It is important to note that irrigation with highly alkaline water (high pH) following a Portfolio CA Herbicide soil application may significantly increase the amount of sulfentrazone available in soil solution. Irrigation with water having a pH greater than 7.5 could result in adverse crop response. This response

will ultimately depend on initial Portfolio CA Herbicid[illegible]lication rate, application timing, amount and pH of [illegible]ation water; the sensitivity of the crop and the crop growth stage when irrigated. The risk of [illegible]erse crop response will lessen with advances in the c[illegible] growth stage.

Weeds Controlled

When applied according to directions, Portfolio CA Herbicide will provide control of:

Amaranth, Palmer	Nightshade, Eastern black
Filaree, redstem	Pigweed, redroot
Kochia (ALS and Triazine Resistant)	Pigweed, smooth
Lambsquarters, common	Thistle, Russian
Morningglory, ivyleaf	Waterhemp, common
Morningglory, tall	Waterhemp, tall

For information on other weeds not listed above, refer to Weed Controlled section (Table 5) in this label.

Precautions

Potato varieties may vary in their response to herbicide applications. When using Portfolio CA Herbicide on an untested variety, always determine the crop tolerance before planting. Some potato varieties, including Sangre, Shepody and Snowden, have shown sensitivity to Portfolio CA Herbicide. Caution should be used when planting these varieties on marginal coarse soils.

These Crop Specific Use directions are based upon the interactive effects of Portfolio CA Herbicide (su lfentrazone) and the primary soil and environmental factors, which affect its activity on various weed species and tolerance among crops. The user is required to observe the instructions and guidance previously presented under General Application Instructions, General Portfolio CA Herbicide Product Use Rates, Rotational Crop Guidelines, Replanting Instructions, Weed Controlled and any other section of this label pertinent to the anticipated crop use. It is important to note that not all varieties or cultivars of a given crop species have been evaluated under treatment with Portfolio CA Herbicide. Consult university or extension weed management specialists for additional information on specific local varieties or cultivars and any other pertinent information on Portfolio CA Herbicide under specific local conditions.

Restrictions

Do not use on soils classified as sand, which have less than 1% organic matter.

Do not apply Portfolio CA Herbicide after potato emergence from the soil as undesirable crop response may occur.

Do not apply more than 8.0 fluid ounces (0.25 pound active) per acre per twelve-month period. The twelve-month period is considered to begin upon the initial Portfolio CA application.

SOYBEANS (24.0)

Table 10

Portfolio CA Herbicide Use Rate Table (Soybeans)
Fall, Spring Early Preplant, Preemergence, and Preplant Incorporated Applications

Broadcast Rate	Fluid Ounces Portfolio CA Herbicide per acre		
	Soil Texture		
% Organic Matter	Coarse	Medium	Fine
<1.5	4.5 – 6.0	6.0 – 8.0	8.0
1.5-3	6.0 – 8.0	8.0 – 10.1	10.1
>3	8.0 – 10.1	10.1 – 12.0	12.0
Refer to the previous information on soil types under the COARSE, MEDIUM, and FINE categories Use higher rates for soils of pH less than 7.0 and lower rates for pH greater than 7.0 within the rate range.			

Ground and Aerial Applications (24.1)

Apply Portfolio CA Herbicide in conventional tillage, conservation tillage, reduced tillage or no-tillage cropping systems using rates recommended in the Portfolio CA Herbicide Use Rate Table 10. Portfolio CA Herbicide may be applied with ground or aerial sprayers calibrated to deliver a minimum of 10 gallons of finished spray by ground application and 5 gallons of finished spray by air. Use nozzle types and arrangements that will provide optimum coverage while producing a minimal amount of fine droplets. Apply sufficient spray volume to achieve adequate coverage.

Preplant Incorporated and Preemergence Applications (24.2)

Portfolio CA Herbicide can be applied prior to planting or up to 3 days after planting. When applications after planting are delayed greater than 3 days after planting, injury may occur if seeds are germinating. Portfolio CA Herbicide may be applied preemergence or preplant incorporated. For preplant incorporated applications, incorporation must be uniform and no deeper than 2 inches. Improper soil incorporation may result in erratic weed control and/or crop injury. Portfolio CA Herbicide applied near or after crop emergence may cause severe injury to the crop. Portfolio CA Herbicide can be applied alone or in combination with other labeled soybean herbicides. Portfolio CA Herbicide may be followed by labeled postemergence soybean herbicides for increased control of grass and broadleaf weeds. Always follow the most restrictive label when tank mixing. When using Portfolio CA Herbicide in no-till or minimum till cropping systems, tank mix with an appropriate burndown herbicide for improved control of existing weeds.

Fall Applications (24.3)

Portfolio CA Herbicide may be applied as a fall treatment to the stubble of harvested crops for the burndown of existing vegetation and preemergence control of labeled weeds the following spring in no-till and conservation tillage production systems. Fall applications of Portfolio CA Herbicide must be made in weed control programs that include, as needed, spring applications of preplant, preemergence or postemergence herbicides for the following crop season. Portfolio CA Herbicide can be applied to the stubble of a harvested crop in no-till or to the soil surface of conservation tillage fields after harvest when the sustained soil temperature is 55 degrees F and falling at a soil depth of 4 inches. Apply after September 30 in those areas North of Interstate 90 and after October 15 in those areas North of Interstate 70. Do not apply Portfolio CA Herbicide as a fall treatment South of Interstate 70. Applications to ridge till production systems must be made after the formation of ridges or bedded.

If weeds are emerged at the time of application, utilize a tank mixture with a suitable burndown herbicide at labeled rates. Fall applied burndown treatments should be made with a minimum of 20 gallons per acre to achieve adequate coverage of the weeds being treated. When making burndown applications to emerged weeds, the addition of adjuvants such as COC or MSO to the spray mixture can be used to enhance the burndown activity of the application.

Weeds Controlled

When Applied according to directions, Portfolio CA Herbicide will provide control of:

Amaranth, Palmer	Nightshade
Copperleaf, hophornbeam	Pigweed, spp.
Kochia (ALS and Triazine	Sida, prickly

Resistant)	
Lambsquarters, common	Thistle, Russian
Morningglory, spp.	Waterhemp, spp.

For information on other weeds not listed above, refer to Weed Controlled section (Table 5) in this label.

Precautions
When applying Portfolio CA Herbicide with other registered herbicides, refer to specific label information on precautions, instructions, limitations, application methods and timings, and weeds controlled.

Portfolio CA Herbicide is especially effective against a wide range of economic broadleaf and grass weeds. The same processes that sulfentrazone affects in these weeds can, under certain conditions, be affected in soybeans. These conditions include high pH (7.5 and above), cool weather, prolonged and excessive moisture, seedling diseases, and any other condition, including poor agronomic practices, that are unfavorable to vigorous crop growth. Such effects in soybeans are often observed as stunting and discoloration. The duration of these effects are somewhat dependent on the duration of the adverse growing conditions. These effects lessen and generally diminish with the return to normal growing conditions.

These Crop Specific Use directions are based upon the interactive effects of Portfolio CA Herbicide (su lfentrazone) and the primary soil and environmental factors, which affect its activity on various weed species and tolerance among crops. The user is required to observe the instructions and guidance previously presented under General Application Instructions, General Portfolio CA Herbicide Product Use Rates, Rotational Crop Guidelines, Replanting Instructions, Weed Controlled and any other section of this label pertinent to the anticipated crop use. It is important to note that not all varieties or cultivars of a given crop species have been evaluated under treatment with Portfolio CA Herbicide. Consult university or extension weed management specialists for additional information on specific local varieties or cultivars and any other pertinent information on Portfolio CA Herbicide under specific local conditions.

Restrictions
Do not apply more than 12.0 fluid ounces (0.375 lbs active) per acre of Portfolio CA Herbicide per twelve-month period. The twelve-month period is considered to begin upon the initial Portfolio CA Herbicide application.

Do not use on soils classified as sand, which have less than 1% organic matter.

Do not apply to frozen soils or existing snow cover to prevent Portfolio CA Herbicide runoff from rain or snowmelt that may occur following application.

Do not apply after crop seed germination.

SUGARCANE (25.0)

Table 11

Portfolio CA Herbicide Use Rate Table (Sugarcane) Planting Time and Lay-by Applications			
Broadcast Rate	**Fluid Ounces Portfolio CA Herbicide per acre**		
	Soil Texture		
% Organic Matter	**Coarse**	**Medium**	**Fine**
<1.5	4.5 – 6.0	6.0 – 8.0	8.0
1.5-3	6.0 – 8.3	8.0 – 10.1	10.1
>3	8.0 – 10.1	10.1 – 12.0	12.0
Refer to the previous information on soil types under the COARSE, MEDIUM, and FINE categories Use higher rates for soils of pH less than 7.0 and lower rates for pH greater than 7.0 within the rate range.			

Apply Portfolio CA Herbicide as a broadcast or banded preemerge soil applied treatment for the control of broadleaf weeds, grasses and sedges in sugarcane. Refer to the Portfolio CA Herbicide Product Use Rate Section and Table 11 for specific use information.

Planting Time Applications (25.1)
Apply Portfolio CA Herbicide preemerge to newly planted or ratoon sugarcane. Use the higher rate on clay soils and/or soils with organic matter content higher than 2 percent. Apply either by air in a minimum of 5 gallons of spray per acre or by ground equipment in a minimum of 15 gallons of spray per acre. Portfolio CA Herbicide may be applied with other herbicides registered for use in sugarcane.

Aerial Applications (25.2)
Portfolio CA Herbicide may be applied by air in a minimum of 5 gallons of finished spray per acre. Portfolio CA Herbicide may be applied with other herbicides or insecticides registered for aerial application in sugarcane.

Lay-by Applications (25.3)
Apply Portfolio CA Herbicide as a directed spray to sugarcane at lay-by timing. Use the higher rate on clay soils and/or soils with organic matter content higher than 2 percent. Apply as a directed spray with ground equipment in a minimum of 15 gallons of spray per acre. Portfolio CA Herbicide may be applied with other herbicides registered for use in sugarcane.

Weeds Controlled
When applied according to directions, Portfolio CA Herbicide will provide control of:

Morningglory, entireleaf	Morningglory, tall
Morningglory, ivyleaf	Pigweed, red root
Morningglory, red	Nutsedge, yellow

For information on other weeds not listed above, refer to Weed Controlled section (Table 5) in this label.

Precautions
These Crop Specific Use directions are based upon the interactive effects of Portfolio CA Herbicide (su lfentrazone) and the primary soil and environmental factors, which affect its activity on various weed species and tolerance among crops. The user is required to observe the instructions and guidance previously presented under General Application Instructions, General Portfolio CA Herbicide Product Use Rates, Rotational Crop Guidelines, Replanting Instructions, Weed Controlled and any other section of this label pertinent to the anticipated crop use. It is important to note that not all varieties or cultivars of a given crop species have been evaluated under treatment with Portfolio CA Herbicide. Consult university or extension weed management specialists for additional information on specific local varieties or cultivars and any other pertinent information on Portfolio CA Herbicide under specific local conditions.

Restrictions
Do not apply within 120 days of harvest.

Do not use on soils classified as sand, which have less than 1% organic matter.

Do not allow spray to contact crop leaves.

Do not apply more than 12.0 fluid ounces (0.375 lbs active) per acre of Portfolio CA Herbicide per acre per twelve-month period. The twelve-month period is considered to begin upon the initial Portfolio CA Herbicide application.

SUNFLOWERS (26.0)

Table 12

Portfolio CA Herbicide Use Rate Table (Sunflowers) Fall, Early Spring Preplant, Preemergence, and Preplant Incorporated Applications			
Broadcast Rate	**Fluid Ounces Portfolio CA Herbicide per acre**		
	Soil Texture		
% Organic Matter	**Coarse**	**Medium**	**Fine**
<1.5	3.0 - 3.75	3.0 – 4.5	3.75 – 5.25
1.5-3.0	3.0 – 4.5	3.75 – 6.0	4.5 – 6.75
>3	3.75 – 6.0	4.5 – 6.75	6.0 – 8.0
Refer to the previous information on soil types under the COARSE, MEDIUM, and FINE categories Use higher rates for soils of pH less than 7.0 and lower rates for pH greater than 7.0 within the rate range.			

Fall Applications (26.1)

Portfolio CA Herbicide may be applied in the fall as a preplant treatment to control or suppress weeds prior to planting sunflowers the following spring. Portfolio CA Herbicide should be applied to the stubble or soil surface and allow moisture from rainfall or snow to move the product into the soil. Do not mechanically incorporate in the fall or spring as this can destroy the herbicide barrier and allowing weed escapes to occur. Do not apply to frozen soils or to existing snow cover to prevent Portfolio CA Herbicide runoff from rain or snow melt that may occur following application. Portfolio CA Herbicide may be tank mixed with other residual soil herbicides that are labeled for fall use on sunflowers. If weeds are emerged at the time of Portfolio CA Herbicide application, use a burndown herbicide such as glyphosate or paraquat at the full-labeled rate in combination with Portfolio CA Herbicide or split application as needed. Select the appropriate rate from Table 12 above within the correct soil type and organic matter range. When applying Portfolio CA Herbicide in the fall, use a mid to high rate within the rate range for the appropriate soil type and organic matter.

Early Preplant and Preemergence (Spring Applications) (26.2)

Portfolio CA Herbicide may be applied preplant on the soil surface in the spring to control weeds in sunflowers. Portfolio CA Herbicide can be applied early preplant prior to planting up to 3 days after planting as a preemerge soil application if seedlings have not broken the soil surface and if the seed furrow is completely closed. For preemerge applications greater than 3 weeks prior to planting, use the high rate within the appropriate rate range for the soil and organic matter type listed in the use rate chart above (Table 12). Portfolio CA Herbicide can be tank mixed with other preemerge herbicides labeled for sunflower use. If dry conditions persist following preemerge application of Portfolio CA Herbicide, a shallow incorporation may be needed to incorporate and activate the herbicide. If weeds are emerged at the time of Portfolio CA Herbicide application, use a burndown herbicide at the full-labeled rate in combination with Portfolio CA Herbicide or split application as needed.

Preplant Incorporated (PPI) (26.3)

Portfolio CA Herbicide may be applied as a Preplant Incorporated treatment in the spring prior to planting in reduced and conventional tillage sunflowers. Portfolio CA Herbicide should be shallowly incorporated in the soil no deeper than 2 inches. Incorporating Portfolio CA Herbicide deeper than 2 inches can result in inconsistent weed control. Use the appropriate rate from Table 9 above for the soil texture, organic matter, and pH level. Portfolio CA Herbicide can be tankmixed with other soil-applied herbicides labeled for preplant incorporation in sunflowers.

Weeds Controlled

When applied according to directions, Portfolio CA Herbicide will provide control of:

Amaranth, Palmer	Pigweed, red root
Filaree, redstem	Pigweed, smooth
Kochia (ALS and Triazine Resistant)	Sida, prickly
Lambsquarters, common	Thistle, Russian
Morningglory, ivyleaf	Waterhemp, common
Morningglory, tall	Waterhemp, tall
Nightshade, Eastern black	

For information on other weeds not listed above, refer to Weed Controlled section (Table 5) in this label.

Precautions

When applying Portfolio CA Herbicide to coarse textured soils, it is recommended that growers allow a minimum of 7-14 days from application to planting. Best results are achieved with Portfolio CA Herbicide when applications are made early preplant and greater than 14 days before planting.

Some adverse crop response may occur on coarse textured soils with low organic matter (less than 1.5%) and pH of 7.8 or higher, or on highly eroded soils, or in areas of calcareous outcroppings. Portfolio CA Herbicide use rates should be reduced in those areas. Inadequate seed furrow closure or shallow planting (less than 1.0 inch) may result in undesirable crop response. As expected, poor growing conditions such as excessive moisture, low temperatures, soil compaction and diseases may also cause undesirable crop response.

These Crop Specific Use directions are based upon the interactive effects of Portfolio CA Herbicide (sulfentrazone) and the primary soil and environmental factors, which affect its activity on various weed species and tolerance among crops. The user is required to observe the instructions and guidance previously presented under General Application Instructions, General Portfolio CA Herbicide Product Use Rates, Rotational Crop Guidelines, Replanting Instructions, Weed Controlled and any other section of this label pertinent to the anticipated crop use. It is important to note that not all varieties or cultivars of a given crop species have been evaluated under treatment with Portfolio CA Herbicide. Consult university or extension weed management specialists for additional information on specific local varieties or cultivars and any other pertinent information on Portfolio CA Herbicide under specific local conditions.

Restrictions

Do not apply more than 8.0 fluid ounces (0.25 pound active) of Portfolio CA Herbicide per twelve-month period to sunflowers. The twelve-month period is considered to begin upon the initial Portfolio CA Herbicide application.

Do not apply to frozen soils or existing snow cover to prevent Portfolio CA Herbicide runoff from rain or snowmelt that may occur following application.

Do not use on soils classified as sand, which have less than 1% organic matter.

Do not incorporate greater than 2 inches deep.

TOBACCO (Burley, Flue-Cured and Dark) (27.0)

Table 13

Portfolio CA Herbicide Use Rate Table (Tobacco) Preemergence and Preplant Incorporated Applications			
Broadcast Rate	**Fluid Ounces Portfolio CA per acre**		
	Soil Texture		
% Organic Matter	**Coarse**	**Medium**	**Fine**
<1.5	4.5 – 6.0	6.0 – 8.0	8.0
1.5-3	6.0 – 8.0	8.0 – 10.1	10.1
>3	8.0 – 10.1	10.1 – 12.0	12.0
Refer to the previous information on soil types under the COARSE, MEDIUM, and FINE categories Use higher rates for soils of pH less than 7.0 and lower rates for pH greater than 7.0 within the rate range.			

Portfolio CA Herbicide may be surface applied or preplant incorporated (to a depth no greater than 2 inches) from 14 days to 12 hours days prior to transplanting tobacco. Incorporating Portfolio CA Herbicide deeper than 2 inches can result in inconsistent weed control.

Broadcast apply the appropriate Portfolio CA Herbicide rate from Table 14 above, in a minimum of 10 gallons per acre of water, to the soil prior to transplanting.

Non-Bedded (Fields where raised beds are NOT formed prior to transplanting) (27.1)
Perform all accepted cultural practices for land preparation, fertilizer/fungicide incorporation, etc. prior to the application of Portfolio CA Herbicide. Once the field has been prepared for planting, Portfolio CA Herbicide may be surface applied or lightly preplant incorporated from 14 days to 12 hours prior to transplanting.

If Portfolio CA Herbicide is surface applied and it is necessary to remove equipment tracks from the field after application but prior to transplanting, any light finishing equipment may be used providing the soil is not disturbed to a depth greater than 2 inches.

If timely cultivations are not performed following a pre-transplant surface application, reduced/unacceptable weed control may occur in the drill.

Bedded (Fields where raised beds ARE formed PRIOR to transplanting) (27.2)
Apply Portfolio CA Herbicide to formed beds as a surface application from 14 days to 12 hours prior to transplanting. If it is customary to drag/knock down beds prior to transplanting, this procedure must be performed prior to the Portfolio CA Herbicide application.

When incorporating prior to bedding, Portfolio CA Herbicide must be thoroughly and uniformly incorporated to a depth no greater than 2 inches to avoid concentrating Portfolio CA Herbicide in the bed.

If initial transplanting fails to produce a uniform stand, tobacco may be replanted. DO NOT re-treat field with a second application of Portfolio CA Herbicide, or any other herbicide containing sulfentrazone. DO NOT re-bed. Re-transplant into previously formed, treated beds.

For broad spectrum and optimum grass weed control a grass herbicide application will be required.

Weeds Controlled
When Applied according to directions, Portfolio CA Herbicide will provide control of:

Amaranthus, livid	Pigweed, redroot
Filaree, redstem	Pigweed, smooth
Galinsoga, hairy	Sida, prickly
Lambsquarters, common	Signalgrass, broadleaf
Morningglory, ivyleaf	Smartweed, Pennsylvania
Morningglory, tall	

For information on other weeds not listed above, refer to Weed Controlled section (Table 5) in this label.

Precautions
Poor agronomic practices, unfavorable pH soils, diseases, cold weather, excessive moisture, drought or other conditions unfavorable to normal plant growth may adversely effect the growth of tobacco transplants. Weakened transplants may be more susceptible to herbicide response and diseases, particularly under poor drainage or compacted soil conditions or when the soil has been saturated for long periods of time. Contact your State Agricultural Extension Service Specialist for consultation as to the agronomic recommendations suited for your tobacco varieties and local conditions. Temporary stunting of tobacco may occur if transplants are set too shallowly, or if heavy rainfall occurs immediately following transplanting. Splashing of treated soil onto tobacco leaves may cause some localized and inconsequential necrosis. Use sound transplanting practices that insure treated soil will not wash or crust over tobacco plants.

These Crop Specific Use directions are based upon the interactive effects of Portfolio CA (sulfentrazone) and the primary soil and environmental factors, which affect its activity on various weed species and tolerance among crops. The user is required to observe the instructions and guidance previously presented under General Application Instructions, General Portfolio CA Product Use Rates, Rotational Crop Guidelines, Replanting Instructions, Weed Controlled and any other section of this label pertinent to the anticipated crop use. It is important to note that not all varieties or cultivars of a given crop species have been evaluated under treatment with Portfolio CA Herbicide. Consult university or extension weed management specialists for additional information on specific local varieties or cultivars and any other pertinent information on Portfolio CA Herbicide under specific local conditions.

Restrictions
Do not use on Shade Grown Tobacco

Do not apply Portfolio CA Herbicide to soils classified as sands containing less than 1% organic matter.

Do not use Portfolio CA Herbicide in tobacco seeding beds or greenhouses.

Do not apply Portfolio CA Herbicide post-transplant as unacceptable injury may occur.

Do not perform tillage practices that concentrate Portfolio CA Herbicide into the bed or crop injury may occur.

Do not apply more than 12.0 fluid ounces (0.375 lbs active) per acre of Portfolio CA Herbicide per acre per twelve-month period. The twelve-month period is considered to begin upon the initial Portfolio CA application.

Do not incorporate greater than 2 inches deep.

VEGETABLE CROPS

Before applying Portfolio CA Herbicide to vegetable crops, users, producers, and/or applicators must read and follow the information presented in the Conditions of Sale and Limitation of Warranty and Liability section on page 3 of this label.

ASPARAGUS (28.0)

Table 14

Portfolio CA Herbicide Use Rate Table (Asparagus) Spring Preemergence Applications			
Broadcast Rate	**Fluid Ounces Portfolio CA Herbicide per acre**		
	Soil Texture		
% Organic Matter	**Coarse**	**Medium**	**Fine**
<1.5	4.5 – 6.0	6.0 – 8.0	8.0

1.5-3	6.0 – 8.0	8.0 – 10.1	10.1
>3.0	8.0 – 10.1	10.1 – 12.0	12.0
Refer to the use rate information on soil types under the COARSE, MEDIUM, and FINE categories. Use higher rates for soils of pH less than 7.0 and lower rates for pH greater than 7.0 within the rate range.			

Apply Portfolio CA Herbicide as a broadcast treatment to crowns established for one or more years.

Apply in the spring before the crop and weeds emerge. Portfolio CA Herbicide should be applied at 4.5 to 12 fluid ounces (0.141 to 0.375 pound active) per acre in 10 to 40 gallons of finished spray per acre. Portfolio CA Herbicide may be applied with other pesticides registered for use with asparagus.

Weeds Controlled
When Applied according to directions, Portfolio CA Herbicide will provide control of :

Amaranth, Palmer	Nightshade, Eastern black
Galinsoga, hairy	Nutsedge, yellow
Lambsquarters, common	Pigweed, redroot
Morningglory, ivyleaf	Pigweed, smooth

For information on other weeds not listed above, refer to Weed Controlled section (Table 5) in this label.

Precautions
These Crop Specific Use directions are based upon the interactive effects of Portfolio CA Herbicide (su lfentrazone) and the p rimary soil and environmental factors, which affect its activity on various weed species and tolerance among crops. The user is required to observe the instructions and guidance previously presented under General Application Instructions, General Portfolio CA Herbicide Product Use Rates, Rotational Crop Guidelines, Replanting Instructions, Weed Controlled and any other section of this label pertinent to the anticipated crop use. It is important to note that not all varieties or cultivars of a given crop species have been evaluated under treatment with Portfolio CA Herbicide. Consult university or extension weed management specialists for additional information on specific local varieties or cultivars and any other pertinent information on Portfolio CA Herbicide under specific local conditions.

Restrictions
Do not apply within 14 days prior to harvest.

Do not apply more than 12.0 fluid ounces (0.375 pound active) per acre per 12-month period.

Do not make more than one Portfolio CA Herbicide application per acre per 12-month period. The twelve-month period is considered to begin upon the initial Portfolio CA Herbicide application.

Do not use on soils classified as sand, which have less than 1% organic matter.

CABBAGE (Transplanted Only) (29.0)

Table 15

Portfolio CA Herbicide Use Rate Table (Cabbage) Fall or Spring Early Preplant, Preemergence, and Preplant Incorporated Applications			
Broadcast Rate	**Fluid Ounces Portfolio CA Herbicide per acre**		
	Soil Texture		
% Organic Matter	**Coarse**	**Medium**	**Fine**
<1.5%	2.25 – 3.0	3.0 – 4.5	3.0 – 6.0
1.5-3.0 %	3.0 – 6.0	6.0 – 9.0	6.0 – 9.0
>3.0 %	6.0 – 9.0	6.0 – 12.0	6.0 – 12.0
Refer to the previous information on soil types under the COARSE, MEDIUM, and FINE categories. Use higher rates for soils of pH less than 7.0 and lower rates for pH greater than 7.0 within the rate range.			

Early Preplant (Fall Application or Spring Application) (29.1)
Portfolio CA Herbicide may be applied in the fall or spring preceding the growing season to control weeds prior to or up to the planting or transplanting of cabbage. Portfolio CA Herbicide may be applied in the spring from 60 days prior to planting up to planting time. Portfolio CA Herbicide should be applied to the harvested crop stubble or soil surface without incorporation. Moisture in the form of rain or snow will move and activate the product into the soil. Do not mechanically incorporate in the fall or spring after application as this may destroy the herbicide barrier and weed escapes can occur. Do not apply to frozen soils to prevent Portfolio CA Herbicide runoff from rain or snow that may occur following application. Portfolio CA Herbicide may be tankmixed with other burndown herbicides to control emerged weeds in the fall or spring or with residual soil herbicides that are labeled for fall use on cabbage. Use the full, recommended rates of burndown herbicides in combination with Portfolio CA Herbicide, or split applications as needed. Observe all precautions, instructions, and rotational cropping guidelines of each product's label when tank mixing, including all references to potential carryover and crop injury warnings or restrictions.

Preplant Incorporated (PPI) (29.2)
Portfolio CA Herbicide may be applied as a preplant incorporated treatment in the spring prior to transplanting of cabbage. Do not incorporate to depths greater than 2 inches. Portfolio CA Herbicide can be tankmixed with other burndown or soil-applied herbicides labeled for use in cabbage. Use the full, recommended rates of burndown herbicides or split applications as needed. Observe all precautions, instructions and rotational cropping guidelines of each product's label when tank mixing including all references to potential carryover and crop injury warnings or restrictions.

Transplant Cabbage (29.3)
Portfolio CA Herbicide may be applied pre-emergence as a broadcast or banded treatment to transplanted cabbage only. Applications should be made broadcast or banded treatment prior to transplanting. Portfolio CA Herbicide may be applied as a banded treatment into the row middles within 72 hours after transplanting.

Weeds Controlled
When Applied according to directions, Portfolio CA Herbicide will provide control of:

Galinsoga, hairy	Waterhemp, common
Lambsquarters, common	Waterhemp, tall
Pigweed, redroot	

For information on other weeds not listed above, refer to Weed Controlled section (Table 5) in this label.

Precautions

These Crop Specific Use directions are based upon the interactive effects of Portfolio CA Herbicide (sulfentrazone) and the primary soil and environmental factors, which affect its activity on various weed species and tolerance among crops. The user is required to observe the instructions and guidance previously presented under General Application Instructions, General Portfolio CA Herbicide Product Use Rates, Rotational Crop Guidelines, Replanting Instructions, Weed Controlled and any other section of this label pertinent to the anticipated crop use. It is important to note that not all varieties or cultivars of a given crop species have been evaluated under treatment with Portfolio CA Herbicide. Consult university or extension weed management specialists for additional information on specific local varieties or cultivars and any other pertinent information on Portfolio CA Herbicide under specific local conditions.

Restrictions
Do not apply more than 12 fluid ounces (0.375 pound active) per acre of Portfolio CA Herbicide per application or per twelve-month period. The twelve-month period is considered to begin upon the initial Portfolio CA Herbicide application.

Do not use on soils classified as sand, which have less than 1% organic matter.

Do not incorporate to depths greater than 2 inches.

DRY SHELLED BEANS AND PEAS (30.0)

Dried cultivars of bean (*Lupinus*); bean (*Phaseolus*)(includes field bean, kidney bean, lima bean (dry), navy bean, pinto bean, tepary bean); bean (*Vigna*) (includes adzuki bean, blackeyed pea, catjang, cowpea, crowder pea moth bean, lentil, mung bean, rice bean, southern pea, urd bean); broad bean (dry); chickpea; guar; lab lab bean; pea (*Pisum*) (includes field pea) and pigeon pea.

Table 16

Portfolio CA Use Rate Table (Dry Shelled Beans Peas) Fall or Spring Early Preplant, Preemergence, and Preplant Incorporated Applications			
Broadcast Rate	**Fluid Ounces Portfolio CA per acre**		
	Soil Texture		
% Organic Matter	**Coarse**	**Medium**	**Fine**
<1.5%	2.25 – 3.0	3.0 – 4.5	3.0 – 4.5
1.5-3.0 %	3.0 – 4.5.0	3.75 – 6.0	4.5 – 6.0
>3.0 %	3.75 – 6.0	4.5 – 6.75	5.25 – 8.0
Refer to the previous information on soil types under the COARSE, MEDIUM, and FINE categories Use higher rates for soils of pH less than 7.0 and lower rates for pH greater than 7.0 within the rate range.			

Early Preplant and Fall Applications (30.1)
Portfolio CA Herbicide may be applied in the fall as a preplant treatment to control or suppress weeds prior to planting the following spring. Portfolio CA Herbicide should be applied to the stubble or soil surface and allow moisture from rainfall or snow to move the product into the soil. Do not mechanically incorporate in the fall or spring as this can destroy the herbicide barrier and weed escapes can occur. Do not apply to frozen soils or to existing snow cover to prevent Portfolio CA Herbicide runoff from rain or snow melt that may occur following application. Portfolio CA Herbicide may be tank mixed with other residual soil herbicides that are labeled for fall use on dry bean and dry peas. If weeds are emerged at the time of Portfolio CA Herbicide application, use a burndown Herbicide such as glyphosate or paraquat at the full-labeled rate in combination with Portfolio CA Herbicide or split application as needed. Select the appropriate rate from Table 16 above within the correct soil type and organic matter range. When applying Portfolio CA Herbicide in the fall, use a mid to high rate within the rate range for the appropriate soil type and organic matter.

Early Preplant and Preemergence (Spring Applications) (30.2)
Portfolio CA Herbicide may be applied preplant on the soil surface in the spring to control weeds in dry bean and dry peas. Portfolio CA Herbicide can be applied early preplant prior to planting up to 3 days after planting as a preemerge soil application if seedlings have not broken the soil surface and if the seed furrow is completely closed. For preemerge applications greater than 3 weeks prior to planting, use the high rate within the appropriate rate range for the soil and organic matter type listed in the use rate chart above Table16. Portfolio CA Herbicide can be tank mixed with other preemerge herbicides labeled for dry bean and dry peas use. If dry conditions persist following preemerge application of Portfolio CA Herbicide, a shallow incorporation may be needed to incorporate and activate the herbicide. If weeds are emerged at the time of Portfolio CA Herbicide application, use a burndown herbicide at the full-labeled rate in combination with Portfolio CA Herbicide or split application as needed.

Preplant Incorporated (PPI) (30.3)
Portfolio CA Herbicide may be applied as a Preplant Incorporated treatment in the spring prior to planting in reduced and conventional tillage dry bean and dry pea. Do not incorporate to depths greater than 2 inches. Portfolio CA Herbicide use rates for PPI applications are similar to those used in preplant and preemergence applications. Portfolio CA Herbicide can be tankmixed with other burndown or soil-applied herbicides labeled for use in dry bean or dry pea. Use the full, recommended rates of burndown herbicides, or split applications as needed. Observe all precautions, instructions, and rotational cropping guidelines of each product's label when tank mixing, including all references to potential carryover and crop injury warnings or restrictions.

Weeds Controlled
When applied according to directions, Portfolio CA Herbicide will provide control of:

Amaranth, Palmer	Pigweed, red root
Filaree, redstem	Pigweed, smooth
Kochia (ALS and Triazine Resistant)	Sida, prickly
Lambsquarters, common	Thistle, Russian
Morningglory, ivyleaf	Waterhemp, common
Morningglory, tall	Waterhemp, tall
Nightshade, Eastern black	

For information on other weeds not listed above, refer to Weed Controlled section (Table 5) in this label.

Precautions
When applying Portfolio CA Herbicide to coarse textured soils, it is recommended that growers allow a minimum of 7-14 days from application to planting. Best results are achieved with Portfolio CA Herbicide when applications are made early preplant and greater than 14 days before planting. Under extended periods of dry weather, adequate weed control may not be achieved

Some adverse crop response may occur on coarse textured soils with low organic matter (less than 1.5%) and pH of 7.8 or higher, or on highly eroded soils, or in areas of calcareous outcroppings. Portfolio CA Herbicide use rates should be reduced in those areas. Inadequate seed furrow closure or shallow planting (less than 1.0 inch) may result in undesirable crop response. As expected, poor growing conditions such as excessive moisture, low temperatures, soil compaction and diseases may also cause undesirable crop response.

These Crop Specific Use directions are based upon the interactive effects of Portfolio CA Herbicide (sulfentrazone) and the primary soil and environmental factors, which affect its activity on various weed species and tolerance among crops. The user is required to observe the instructions and guidance previously presented under General Application Instructions, General Portfolio CA Herbicide Product Use Rates, Rotational Crop Guidelines, Replanting Instructions, Weed Controlled and any other section of this label pertinent to the anticipated crop use. It is important to note that not all varieties or cultivars of a given crop species have been evaluated under treatment with Portfolio CA Herbicide. Consult university or extension weed

management specialists for additional information on specific local varieties or cultivars and any other pertinent information on Portfolio CA Herbicide under specific local conditions.

Restrictions

Do not apply more than 8.0 fluid ounces (0.25 pound active) total per twelve-month period. The twelve-month period is considered to begin upon the initial Portfolio CA application.

Do not apply after crop emerges, or if the seedling is close to the soil surface.

Do not incorporate to depths greater than 2 inches.

Do not apply to frozen soils or to existing snow cover to prevent Portfolio CA Herbicide runoff from rain or snow melt that may occur following application.

Do not use on soils classified as sand, which have less than 1% organic matter.

Do not use on soils classified as sand, which have less than 1% organic matter.

HORSERADISH (31.0)

Table 17

Portfolio CA Herbicide Use Rate Table (Horseradish) Fall or Spring Early Preplant, Preemergence, and Preplant Incorporated Applications			
Broadcast Rate	**Fluid Ounces Portfolio CA Herbicide per acre**		
	Soil Texture		
% Organic Matter	**Coarse**	**Medium**	**Fine**
<1.5%	2.25 – 4.5	3.0 – 4.5	3.0 – 4.5
1.5-3.0 %	4.5 – 6.0	6.0 – 8.0	6.0 – 8.0
>3.0 %	6.0 – 7.5	6.0 – 8.0	6.0 – 8.0
Refer to the previous information on soil types under the COARSE, MEDIUM, and FINE categories Use higher rates for soils of pH less than 7.0 and lower rates for pH greater than 7.0 within the rate range.			

Portfolio CA Herbicide may be applied as an preplant preemerge or preplant incorporated treatment by ground in a minimum of 15 gallons of finished spray.

Early Preplant (Fall Application or Spring Application) (31.1)

Portfolio CA Herbicide may be applied in the fall or spring preceding the growing season to control or suppress weeds prior to or up to the planting of horseradish. Portfolio CA Herbicide may be applied in the spring from 60 days prior to planting up to planting. Portfolio CA Herbicide should be applied to the harvested crop stubble or soil surface without incorporation. Moisture in the form of rain or snow will move and activate the product into the soil. Do not mechanically incorporate in the fall or spring after application as this may destroy the herbicide barrier and weed escapes may occur. Do not apply to frozen soils to prevent Portfolio CA Herbicide runoff from rain or snow that may occur following application. Portfolio CA Herbicide may be tankmixed with other burndown herbicides to control emerged weeds in the fall or spring or with residual soil herbicides that are labeled for use on horseradish. Use full, recommended rates of burndown herbicides in combination with Portfolio CA Herbicide, or split applications as needed. Observe all precautions, instructions, and rotational cropping guidelines of each product label when tank mixing, including all references to potential carryover and crop injury warnings or restrictions.

Preplant Incorporated (PPI) (31.2)

Portfolio CA Herbicide may be applied as a preplant incorporated treatment in the spring prior to planting of horseradish. Do not incorporate to depths greater than 2 inches. Portfolio CA Herbicide can be tankmixed with other burndown or soil-applied herbicides labeled for use on horseradish. Use the full, recommended rates of burndown herbicides or split applications as needed. Observe all precautions, instructions and rotational cropping guidelines of each product's label when tank mixing including all references to potential carryover and crop injury warnings or restrictions.

Pre-Emergence (PRE) (31.3)

Portfolio CA Herbicide may be applied pre-emergence as a broadcast or banded treatment on horseradish. Applications should be made broadcast prior to planting, broadcast soon after planting but at least 5 days before crop emergence. Portfolio CA Herbicide may be applied as a banded treatment into the row middles after crop emergence. Use the higher Portfolio CA Herbicide rates on clay soils and/or soils with greater than 1% organic matter. Portfolio CA Herbicide may be applied with other pesticides registered for use on horseradish.

Weeds Controlled

When applied according to directions, Portfolio CA Herbicide will provide control of:

Lambsquarters, common	Pigweed, redroot
Morningglory, ivyleaf	Waterhemp, common
Nutsedge, yellow	Waterhemp, tall

For information on other weeds not listed above, refer to Weed Controlled section (Table 5) in this label.

Precautions

These Crop Specific Use directions are based upon the interactive effects of Portfolio CA Herbicide (sulfentrazone) and the primary soil and environmental factors, which affect its activity on various weed species and tolerance among crops. The user is required to observe the instructions and guidance previously presented under General Application Instructions, General Portfolio CA Herbicide Product Use Rates, Rotational Crop Guidelines, Replanting Instructions, Weed Controlled and any other section of this label pertinent to the anticipated crop use. It is important to note that not all varieties or cultivars of a given crop species have been evaluated under treatment with Portfolio CA Herbicide. Consult university or extension weed management specialists for additional information on specific local varieties or cultivars and any other pertinent information on Portfolio CA Herbicide under specific local conditions.

Restrictions

Do not apply more than 8.0 fluid ounces (0.25 pound active) per acre of Portfolio CA Herbicide per application or per twelve-month period. The twelve-month period is considered to begin upon the initial Portfolio CA Herbicide application.

Do not apply directly on the crop after the crop emerges or if the seedling sprouts are close to the soil surface.

Do not use on soils classified as sand, which have less than 1% organic matter.

Do not incorporate to depths greater than 2 inches.

OIL CROPS

MINT (32.0)

Table 24

Portfolio CA Herbicide Use Rate Table (Mint) For Dormant and New Planting Applications

Broadcast Rate	Fluid Ounces Portfolio CA Herbicide per acre		
	Soil Texture		
% Organic Matter	Coarse	Medium	Fine
<1.5%	4.5 – 6.0	6.0 – 8.0	8.0
1.5 - 3.0 %	6.0 – 8.0	8.0 – 10.1	10.1
>3.0 %	8.0 – 10.1	10.1 – 12.0	12.0
Refer to the previous information on soil types under the COARSE, MEDIUM, and FINE categories Use higher rates for soils of pH less than 7.0 and lower rates for pH greater than 7.0 within the rate range.			

Dormant Applications (32.1)
Apply Portfolio CA Herbicide to established stands of dormant mint after post harvest and/or spring land cultivation has been completed and before emergence of new mint growth.

Split applications of Portfolio CA Herbicide may be used for preemergence sequential control of winter annuals and summer annuals. Fall applications must be applied after post harvest cultivation has been completed and spring application made after spring cultivation has been completed and before emergence of new mint growth.

Apply Portfolio CA Herbicide in tank-mixtures with a registered burndown herbicide to control emerged weeds at the time of application. A surfactant is recommended with these tank mixtures to improve control of the emerged weeds.

Portfolio CA Herbicide may also be applied in tank mixtures with other products registered for use in mint.

New Planting Applications (32.2)
Portfolio CA Herbicide may be applied to new mint plantings preemergence to the weeds and mint. The rate of application should be reduced approximately twenty five percent of the rate recommended for established plantings for particular soil characteristics. Refer to Portfolio CA Herbicide Use Rate Table (Table 24) for the appropriate use rate for the soil type and organic matter content. The higher rates in the range are recommended for soils of pH less than 7.0.

Weeds Controlled
When Applied according to directions, Portfolio CA Herbicide will provide control of:

Amaranth, Powell	Nutsedge, yellow
Bedstraw, catchweed	Pigweed, redroot
Chamomile, mayweed	Sheperdspurse
Kochia (ALS and Triazine Resistant)	Toadflax, yellow
Lambsquarters, common	Thistle, Russian
Morningglory, ivyleaf	Waterhemp, common
Nightshade, Eastern black	Waterhemp, tall

For information on other weeds not listed above, refer to Weed Controlled section (Table 5) in this label.

Precautions
Applications made to mint that has emerged will result in severe injury to exposed plant tissue.

Applications are recommended only to healthy mint fields. Applications to mint under stress from disease, pests and cultural or environmental conditions may result in crop injury.

Moisture in the form of rainfall or overhead irrigation is required after application to activate the herbicide

These Crop Specific Use directions are based upon the interactive effects of Portfolio CA Herbicide (sulfentrazone) and the primary soil and environmental factors, which affect its activity on various weed species and tolerance among crops. The user is required to observe the instructions and guidance previously presented under General Application Instructions, General Portfolio CA Herbicide Product Use Rates, Rotational Crop Guidelines, Replanting Instructions, Weed Controlled and any other section of this label pertinent to the anticipated crop use. It is important to note that not all varieties or cultivars of a given crop species have been evaluated under treatment with Portfolio CA Herbicide. Consult university or extension weed management specialists for additional information on specific local varieties or cultivars and any other pertinent information on Portfolio CA Herbicide under specific local conditions.

Restrictions
Apply Portfolio CA Herbicide only to dormant mint or new mint plantings before new growth emerges.

Do not use on soils classified as sand, which have less than 1% organic matter.

Do not apply more than 12 fluid ounces (0.375 pound active) per twelve-month period. The twelve-month period is considered to begin upon the initial Portfolio CA Herbicide application.

TURF

SOD PRODUCTION (33.0)

Portfolio CA Herbicide may be applied to established seeded, sodded or sprigged turfgrasses following the second mowing for the control of key grass, sedge and broadleaf weeds. Turf grasses should have developed a good root system, a uniform stand with healthy root systems to fill in the exposed edges prior to application. Sod injury could result from application of this product on sod that is not well established or has been weakened by stresses such as unfavorable weather conditions, diseases, chemical, recent harvesting or mechanical influences.

Turf Grass Tolerance
When applied as directed, the following established turf grasses are tolerant to Portfolio CA Herbicide at the recommended use rates.

Table 25 Tolerant grasses

Grass Type	Maximum Use Rate For Single Application	
Cool Season Grasses **	Fluid Ounces Portfolio CA Herbicide Per Acre	Pound Active Ingredient Per Acre
Bentgrass, creeping	4	0.125
Fescue, fine * (Festuca rubra) Fescue, tall * (Festuca arundinacea) Ryegrass, perennial (Lolium perenne Bluegrass, Kentucky (Poa pratensis) Bluegrass, Rough (Poa trivialis)	4-8	0.125- 0.25
Warm Season Grasses **		

Bahiagrass (Paspalum notatum) Buffalograss (Buchloe dactyloides) Carpetgrass (Axonopus affinis) Centipedegrass (Eremochloa ophuioides) Kikuyugrass (Pennisetum clandestinum) Seashore Paspalum (Paspalum vaginatum) Zoysiagrass (Zoysia japonica) Bermudagrass (Cynadon dactylon) Bermudagrass Hybrids (Cyn Bluegrass, St. Augustinegrass (Stenotaphrum secundatum)	8-12	0.25-0.375

* Applications of Portfolio CA Herbicide to certain varieties of Chewings Fine Fescue or Tall Fescue may result in undesirable plant response.

** It is important to note that not all varieties or cultivars have been evaluated under treatment with Portfolio CA Herbicide. Consult university or extension weed management specialists for additional information on specific local varieties or cultivars and any other pertinent information on Portfolio CA Herbicide under specific local conditions.

Applications to Reseeded, Overseeded or Sprigged Areas
Reseeding, overseeding or sprigging may be done following Portfolio CA Herbicide applications to turfgrasses. If reseeding, overseeding or sprigging is done within 1 month following a Portfolio CA Herbicide treatment, the establishment of desirable grasses may be inhibited. Overseeding of bermudagrass with perennial ryegrass may be done two (2) to four (4) weeks following a Portfolio CA Herbicide application provided slight grass plant response can be tolerated.

Optimum reseeding and overseeding results may be obtained with the use of mechanical or power seeding equipment, and where proper soil cultivation, irrigation and fertilization practices are followed.

Adjuvant use
Good spray coverage is required for optimum control of weeds. Temporary discoloration of some sod species may result from use of surfactant. Use of surfactants is not recommended.

Postemergence Control of Sedges
Portfolio CA Herbicide may be applied at the rate of four (4) to twelve (12) fluid ounces per acre to established turf grasses for the control or suppression of sedges. Select the correct Portfolio CA Herbicide use rate from Table 25.

When applied as directed, Portfolio CA Herbicide will provide control or suppression of the following sedges.
Table 26A

Common Name	Scientific Name
Kyllinga, green	*Kyllinga brevifolia*
Kullinga, false green	*Kyllinga gracillima*
Nutsedge, purple	*Cyperus rotundus*
Nutsedge, yellow	*Cyperus esculentus*
Sedge, cylindrical	*Cyperus retrorsus*
Sedge, globe	*Cyperus globulosus*
Sedge, Surinam	*Cyperus surinamensis*
Sedge, Texas	*Cyperus polystachyos*

Purple nutsedge: For optimum control of purple nutsedge, split applications are recommended below. Apply 4-8 ounces per acre as an initial application followed by a second application when evidence of actively growing purple nutsedge is visible. Do not exceed the maximum rate per acre based on the turf variety as listed in Table 25; tolerant grasses.

Split Application Rates for Optimum Purple Nutsedge Control

Grass Type	First Application (fl. ozs. per acre)	Second Application (fl. ozs. per acre
Cool Season Grasses	2-4 fl. ounces	2-6 fl. ounces
Warm Season Grasses	4-6 fl. ounces	4-6 fl. ounces

Allow 35 days after first application for second application.

Postemergence Control of Grassy Weeds

Portfolio CA Herbicide will control or suppress specific annual grasses (Table 26 B) when applied at a rate of 4 to 12 fl oz/acre . Apply the highest rate consistent with the rate needed for turfgrass tolerance in Table 25. Rates lower than 12 fl oz/acre will generally control grasses for at least 60 days. Portfolio CA Herbicide works best if applied when the annual grasses are small (pre tiller stage) and actively growing.

Table 26B

Common Name	Scientific Name
Goosegrass	*Eleusine indica*

Postemergence Control of Broadleaf Weeds
Portfolio CA Herbicide will control or suppress the weeds listed in the broadleaf chart below when applied alone shortly after weeds have emerged. Portfolio CA Herbicide may be applied at the rate of four (4) to twelve (12) fluid ounces per acre to established turf grasses for the control or suppression of broadleaf weeds. Select the correct Portfolio CA Herbicide use rate from Table 25. For optimum results, Spartan applications should be made shortly after weeds have emerged.

Portfolio CA Herbicide may be tankmixed with other herbicides, insecticides and fungicides registered for use on turfgrasses. Read and follow the label recommendations of the tank mix partner to determine turfgrass specie tolerance, use rates and application requirements. Follow all label restrictions, use directions and precautionary statements before use.

When applied as directed, Portfolio CA Herbicide will provide control or suppression of the following broadleaf weeds.

Broadleaves	Scientific Names
Bittercress	*Cardamine spp.*
Black Medic	*Medicago lupulina*
Buttercup	*Ranunculus spp.*
Carolina geranium	*Geranium carolinianum*
Carpetweed	*Mollugo verticillata*
Chickweed, common	*Stellaria media*
Chickweed, mousear	*Cerastium vulgatum*
Cinquefoil	*Potentilla spp.*
Clover	*Trifolium spp.*
Cudweed	*Gnaphalium spp.*
Dandelion	*Taraxacum officinale*
Dock, curly	*Rumex crispus*
Evening primrose	*Oenothera biennis*
Fiddleneck	*Amsinckia spp.*
Filaree	*Erodium spp.*
Garlic, wild	*Allium vineale*
Goldenrod	*Solidago spp.*
Ground ivy	*Glechema hederasea*
Henbit	*Lamium amplexicaule*
Knotweed, prostrate	*Polygonum aviculare*
Kochia	*Kochia scoparia*

Lambsquarters, common	*Chenopodium albu*
Lawn burweed	*Soliva pterosperma*
Lespedeza, common	*Lespedeza striata*
Mallow, common	*Malva neglecta*
Onion, wild	*Allium canadense*
Parsley piert	*Alchemilla arvensis*
Pigweed, redroot	*Amaranthus retroflexus*
Pigweed, tumble	*Amaranthus albus*
Pineapple weed	*Matricaria matricariodes*
Plantain, buckhorn	*Plantago lanceolata*
Puncture weed	*Tribulus terrestris*
Purslane, common	*Portulaca oleracea*
Pusley, Florida	*Richardia scabra*
Redweed	*Melochia corchorifolia*
Rocket, London	*Sisymbrium irio*
Smartweed, PA	*Polygonum pensylvanicum*
Sorrel, red	*Rumex acetosella*
Speedwell	*Veronica spp.*
Spurge, annual	*Euphorbia spp.*
Spurge, prostrate	*Euphorbia humistrata*
Spurge, spotted	*Euphorbia maculata*
Star of Bethlehem	*Ornithogalum umbellatum*
Velvetleaf	*Abutilon theophrasti*
Violet, wild	*Viola pratincola*
Woodsorrel, creeping	*Oxalis corniculata*
Woodsorrel, yellow	*Oxalis stricta*

Precautions
The use of additional surfactants may cause temporary undesirable effects to turfgrasses.

Restrictions
Sod production areas must be established three (3) months prior to the initial treatment of Portfolio CA Herbicide.

Do not apply Portfolio CA Herbicide to golf course greens or tees.

Do apply Portfolio CA Herbicide to turf grasses not listed on this label.

Do not apply with surfactants without on-site evaluations for spray mixture compatibility and physical effects to turf grasses.

Do not graze or feed forage harvested from Portfolio CA Herbicide treated areas.

Do not apply to landscape ornamental plants or ornamental beds.

Do not harvest sod within three (3) months of Portfolio CA Herbicide application.

Non-CROP USES (34.0)

For Use in Railroad, Highway, Roadside, Pipeline and Utility Rights-of-Way, Industrial Areas, Fence Rows, and Other Non-crop Sites. Can Also Be Used For Selective Weed Control in Turf Sites Including Residential and Institutional Lawns, Athletic Fields, Commercial Sod Farms, Golf Course Fairways and Roughs.

DIRECTIONS FOR USE (35.0)

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.

Do not apply this product through any type of irrigation system.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your state or tribe, consult the agency responsible for pesticide regulation.

GENERAL INFORMATION (36.0)

Portfolio CA Herbicide is a selective soil applied herbicide for the control of certain broadleaf weeds, grasses and sedges. When applied according to directions, it will provide control of susceptible species. Portfolio CA Herbicide is formulated as flowable (suspension concentrate) containing four pounds of the active ingredient sulfentrazone per gallon.

The mode of action of Portfolio CA Herbicide involves uptake by weed roots and shoots. Observe all instructions, mixing directions, application precautions and other label information of each product when tank mixing with Portfolio CA Herbicide.

Proper handling instructions: This product may not be mixed or loaded within 50 feet of any wells (including abandoned wells and drainage wells), sink holes, perennial or intermittent streams and rivers, and natural or impounded lakes and reservoirs. This setback does not apply to properly capped or plugged abandoned wells and does not apply to impervious pad or properly diked mixing/loading areas.

Operations that involve mixing, loading, rinsing or washing of this product into or from pesticide handling or application equipment or containers within 50 feet of any well, are prohibited unless conducted on an impervious pad constructed to withstand the weight of the heaviest load that may be positioned on or moved across the pad. Such a pad shall be designed and maintained to contain any product spills or equipment leaks, container or equipment rinse or wash water, and rainwater that may fall on the pad. Surface water shall not be allowed to either flow over or from the pad, which means the pad must be self contained. The pad shall be sloped to facilitate material removal. An unroofed pad shall be of sufficient capacity to contain at a minimum 110% of the capacity of the largest pesticide container or application equipment on the pad. A pad that is covered by a roof of sufficient size to completely exclude precipitation from contact with the pad shall have a minimum containment capacity of 100% of the capacity of the largest pesticide container or application equipment on the pad. Containment capacities as described above shall be maintained at all times. The above specific minimum containment capacities do not apply to vehicles when delivering pesticide shipments to the mixing/loading site. States may have in effect additional requirements regarding wellhead setbacks and operational containment.

Product must be used in a manner which will prevent back siphoning in wells, spills or improper disposal of excess pesticide, spray mixtures or rinsates.

GENERAL APPLICATION INFORMATION (37.0)

Utilize a boomless application system or a boom and nozzle sprayer equipped with the appropriate nozzles, spray tips and screens and adjusted to provide optimum spray distribution and coverage at the appropriate operating pressures. Utilize nozzles and boomless sprayer configurations which produce minimal amounts of fine spray droplets. Do not exceed 25 psi spray pressure unless otherwise required by the manufacturer of drift reducing nozzles or boomless application systems. Apply a minimum of 10 gallons of finished spray per acre.

Water must be used as the carrier for this product when applied alone, or when tank mixed with other herbicides.

Avoid letting this product sit overnight as settling of product and difficulty of resuspending may occur.

Do not allow spray to drift onto adjacent plants as injury to other plants may occur.

Do not apply to ornamental shrubs and trees, turf gra[illegible] or crops.

SPRAY TANK PREPARATION (38.0)

It is important that spray equipment is clean and free of existing pesticide deposits before using this product. Follow the spray tank clean out procedures specified on the label of product previously applied before adding Portfolio CA Herbicide to the tank.

Mixing Instructions (38.1)

Portfolio CA Herbicide may be tank mixed with other herbicides for control of additional weed species. Mixtures with some other herbicides have not been tested. Conduct an appropriate compatibility test prior to tank mixing with other products. Follow all precautions and restrictions on the tank mix partner label.

For best results, fill spray tank with one half of the volume of clean water needed for the area to be treated. Start agitation system. Slowly add Portfolio CA Herbicide to the spray tank. Complete filling the spray tank to the desired level. Continuous spray tank agitation is required at all times to maintain a uniform spray solution. Make sure Portfolio CA Herbicide is thoroughly mixed before application or before adding another product to the spray tank.

For tank mixtures with other herbicides, a jar test should be conducted to ensure product compatibility before full-scale mixing. Provided the jar test indicates the mixture to be compatible, prepare the tank mixture as follows: Fill the tank one half full with water. With agitator operating, add the recommended amounts of ingredients using the following order: dry granules first, liquid suspensions (flowables) second. Add EC products followed by water soluble products to tank as agitation continues and tank is filled with water. All applicable directions, restrictions and precautions for the tank mixture herbicides must be followed.

Use the Portfolio CA Herbicide mixture immediately after mixing. Do not store the sprayer overnight or for any extended period of time with the Sulfentrazone spray mixture remaining in the tank. Premixing Portfolio CA Herbicide spray solutions in nurse tanks is not recommended.

If Portfolio CA Herbicide is tank-mixed with other herbicides, all additional directions , restrictions and precautions for the tank mixture herbicides must be followed.

SPRAY DRIFT MANAGEMENT (39.0)

Avoiding spray drift at the application site is the responsibility of the applicator. The interaction of many equipment and weather-related factors determine the potential for spray drift. The applicator and the grower are responsible for considering all these factors when making decisions.

The following drift management requirements must be followed to avoid off-target drift movement from aerial applications. These requirements do not apply to forestry applications, public health uses or to applications using dry formulations.

1. The distance of the outer most nozzles on the boom must not exceed ¾ the length of the wingspan or rotor.

2. Nozzles must always point backward and parallel with the air stream and never be pointed downwards more than 45 degrees. Where states have more stringent regulations, they should be observed.

The applicator should be familiar with and take into account the information covered in the Aerial Drift Reduction Advisory Information.

Importance of Droplet Size (39.1)

The most effective way to reduce drift potential is to apply large droplets. The best drift management strategy is to apply the largest droplets that provide sufficient coverage and control. Applying larger droplets reduces drift potential, but will not prevent drift if applications are made improperly, or under unfavorable environmental conditions (see Wind, Temperature and Humidity, and Temperature Inversion section of this label).

Controlling Droplet Size (39.2)

Volume: Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets.

Pressure: Use the lower spray pressures recommended for the nozzle. Higher pressure reduces droplet size and does not improve canopy penetration. When higher flow rates are needed, use higher flow rate nozzles instead of increasing pressure.

Number of nozzles: Use the minimum number of nozzles that provide uniform coverage.

Nozzle Orientation: Orienting nozzles so that the spray is released backwards, parallel to the airstream will produce larger droplets than other orientations. Significant deflection from the horizontal will reduce droplet size and increase drift potential.

Nozzle Type: Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles. Solid stream nozzles oriented straight back produce larger droplets than other nozzle types.

Boom Height: Making applications at the lowest height that produces a uniform spray pattern will reduce exposure of droplets to evaporation and wind.

Boom Length: For some use patterns, reducing the effective boom length to less than ¾ of the wingspan or rotor length may further reduce drift without reducing swath width.

Application Height (by air): Applications should not be made at a height greater than 10 feet above the top of the largest plants unless a greater height is required for aircraft safety. Making applications at the lowest height that is safe reduces exposure of droplets to evaporation and wind.

Swath Adjustment

When applications are made with a crosswind toward sensitive areas, the swath will be displaced downwind. Therefore, on the up and downwind edges of the field, the applicator must compensate for this displacement by adjusting the path of the aircraft upwind. Swath adjustment distance should increase, with increasing drift potential (higher wind, smaller drops, etc.). For ground applications, when applications are made with a crosswind towards sensitive areas, the application should leave a buffer to avoid off-site movement.

Wind

Drift potential is lowest between wind speeds of 2-10 mph. However, many factors, including droplet size and equipment type determine drift potential at any given speed. Application should be avoided below 2 mph due to variable wind direction and high inversion potential

Note: Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they affect drift.

Temperature and Humidity

When making applications in low relative humidity, set up equipment to produce larger droplets to compensate for evaporation. Droplet evaporation is most severe when conditions are both hot and dry.

Temperature Inversions

Applications should not occur during a temperature inversion because drift potential is high. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions due to the light variable winds common during inversions. Temperature inversions are characterized by increasing temperatures with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog; however, if fog is not present, inversions can also be identified by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upwards and rapidly dissipates indicates good vertical air mixing.

Sensitive Areas

The pesticide should only be applied when the potential for drift to adjacent sensitive areas (e.g., residential areas, bodies of water, known habitat for threatened or endangered species, non-target crops) is minimal (e.g, when wind is blowing away from the sensitive areas).

Drift Control Additives

Drift control additives may be used with all spray eq[illegible]ent with the exception of controlled droplet applica[illegible] When a drift control additive is used, read and carefully observe cautionary statements an[illegible] other information on the label. It is recommended[illegible] additives be certified by the Chemical Producers and Distributors Association (CPDA).

Sprayer Equipment Clean-Out (40.0)

After spraying Portfolio CA Herbicide and before using sprayer equipment for any other applications, the sprayer must be thoroughly cleaned using the following procedure:

1. Drain sprayer tank, hoses, and spray boom and thoroughly rinse the inside of the sprayer tank with clean water to remove sediment and residues. In addition, thoroughly flush sprayer hoses, boom, and nozzles with clean water.
2. Fill the tank 1/2 full with clean water, and add appropriate detergent or ammonia (follow manufacturer's directions for use). Fill the tank to capacity and operate the sprayer for 15 minutes to flush hoses, boom, and nozzles.
3. Drain the sprayer system. Rinse the tank with clean water and flush through the hoses, boom, and nozzles. Remove and clean spray tips and screens separately.
4. Properly dispose of all cleaning solution and rinsate in accordance with Federal, State and local regulations and guidelines.

Do not drain or flush equipment on or near desirable trees or plants. Do not contaminate any body of water including irrigation water that may be used on other plants.

APPLICATION INSTRUCTIONS (41.0)

Railroad Rights-of-Way (41.1)

Portfolio CA Herbicide can be used to control many weeds and maintain bare ground on railroad rights-of-way, including railroad yards, railroad crossings and railroad bridge abutments.

Highway, Roadside, Pipeline and Utility Rights-of-Way. (41.2)

Portfolio CA Herbicide can be used to control many weeds and maintain bare ground in highway, roadside, pipeline and utility rights-of-way, Such areas would include, but are not limited to, guard rails, road shoulders, electric utility substations, pipeline pumping stations, around electric transmission towers, around distribution line poles and in other areas where complete vegetation control is desired.

Industrial Areas, Fence Rows and Other Non-crop Sites (41.3)

Portfolio CA Herbicide controls weeds and maintains bare ground in industrial areas including production facilities, tank farms, storage areas, parking areas, lumber yards, airports, military installations, along fence rows, and in similar non-crop sites where complete vegetation control is needed.

Method and Rate of Application (41.4)

For residual control of germinating weeds in non-crop land, apply this product as a broadcast treatment at 8 to 12 fluid ounces (0.25 to 0.375 pounds active ingredient) per acre by ground in a minimum of 10 gallons of spray solution per acre. Applications may be made by helicopter on railroad rights-of-way only.

DO NOT apply Portfolio CA Herbicide to soils classified as sand with less than 1% Organic Matter.

Use labeled rates of burndown herbicides such as glyphosate, glyphosate - trimesium, diquat, 2,4-D, dicamba,etc. as tank mixtures with Portfolio CA Herbicide. Use recommended adjuvants for the herbicide tank mix partner. For all products used in tank mixes, refer to the specific product labels for all restrictions on tank mixing and observe all label precautions, instructions and rotational cropping restrictions.

Timing

For best results, apply Portfolio CA Herbicide alone or in combination with other herbicides for residual control of weeds in late summer, fall, or early spring to insure adequate moisture for soil activation.

Weeds Controlled

This product, when applied at 8 to 12 fluid ounces per acre, will control the following weeds in non-cropland areas. Use the higher labeled rates to extend length of control. Use the higher rates on sites with fine soil textures and on sites with more than 2% organic matter.

Weeds Controlled	
Common Name	**Scientific Name**
Beggarweed, Florida	Desmodium tortuosum
Carpetweed	Mollugo verticillata
Chickweed, common	Stellaria media
Copperleaf, Hophornbeam	Acalypha ostryifolia
Crabgrass species	Digitaria spp.
Croton, tropic	Croton glandulosus
Daisy, American	Coreopsis grandiflora
Dayflower, common	Commelina communis
Dayflower, Virginia	Commelina virginica
Dock, curly	Rumex crispus
Fixweed	Descurainia Sophia
Galinsoga, hairy	Galinsoga ciliata
Groundcherry, clammy (seedling)	Physallis heterophylla
Groundcherry, cutleaf	Physalis angulata
Jimsonweed	Datura stramonium
Kochia	Kochia scoparia
ALS/Triazene Resistant Kochia	Kochia scoparia
Lambsquarter, common	Chenopodium album
Lettuce, wild	Lactuca virosa
Mallow, common	Malva neglecta
Milkweed, honeyvine	Ampelamus albidus
Mexicanweed	Caperonia castanifolia
Morningglory species	Ipomoea spp.
Mustard species	Brassica spp.
Nightshade species	Solanum spp.
Nutsedge species	Cyperus spp
Palmer amaranth	Amaranthus palmeri
Pigweed, smooth	Amaranthus hybridus

Pigweed, redroot	Amaranthus retroflexus
Texasweed	Caperonia palustris
Thistle, Russian	Salsola iberica
Waterhemp, tall	Amaranthus tuberculatus
Waterhemp, common	Amaranthus rudis

Turf Use Instructions (42.0)

General Information (42.1)

Portfolio CA Herbicide is a selective preemergence and post emergence herbicide which controls annual grasses and broadleaf weeds in established turf areas including, but not limited to, residential and institutional lawns, athletic fields, commercial sod farms, golf course fairways and golf course roughs. To broaden the spectrum for preemergence control or suppression of annual grasses and/or broadleaf weeds, Portfolio CA Herbicide should be tank mixed with an EPA registered annual grass herbicide. Observe all instructions, mixing directions, application precautions and other label information of each product when tank mixing with Portfolio CA Herbicide.

Portfolio CA Herbicide is formulated as a flowable (suspension concentrate) containing 4 lbs of active ingredient per gallon. The mode of action of Portfolio CA Herbicide involves uptake by both weed roots and shoots. Preemergence application of Portfolio CA Herbicide requires soil moisture for activation. The amount of soil moisture required for activation following application depends on existing soil moisture, organic matter content and soil texture. The most effective preemergence weed control will be obtained when Portfolio CA Herbicide is activated by at least 0.5 inches of rainfall or irrigation within 7 days after application and prior to weed seed germination.

Mixing and Application Instructions (42.2)

General handling instructions

This product may not be mixed or loaded within 50 feet of any wells (including abandoned wells and drainage wells), sink holes, perennial or intermittent streams and rivers, and natural or impounded lakes and reservoirs. This setback does not apply to properly capped or plugged abandoned wells and does not apply to impervious pad or properly diked mixing/loading areas.

Operations that involve mixing, loading, rinsing or washing of this product into or from pesticide handling or application equipment or containers within 50 feet of any well, are prohibited unless conducted on an impervious pad constructed to withstand the weight of the heaviest load that may be positioned on or moved across the pad. Such a pad shall be designed and maintained to contain any product spills or equipment leaks, container or equipment rinse or wash water, and rainwater that may fall on the pad. Surface water shall not be allowed to either flow over or from the pad, which means the pad must be self contained. The pad shall be sloped to facilitate material removal. An unroofed pad shall be of sufficient capacity to contain at a minimum 110% of the capacity of the largest pesticide container or application equipment on the pad. A pad that is covered by a roof of sufficient size to completely exclude precipitation from contact with the pad shall have a minimum containment capacity of 100% of the capacity of the largest pesticide container or application equipment on the pad. Containment capacities as described above shall be maintained at all times. The above specific minimum containment capacities do not apply to vehicles when delivering pesticide shipments to the mixing/loading site. States may have in effect additional requirements regarding wellhead setbacks and operational containment.

Product must be used in a manner which will prevent back siphoning in wells, spills or improper disposal of excess pesticide, spray mixtures or rinsates.

SPRAY TANK PREPARATION

It is important that spray equipment is clean and free of existing pesticide deposits before using this product. Follow the spray tank clean out procedures specified on the label of product previously applied before adding Portfolio CA Herbicide to the tank.

Portfolio CA Herbicide is a suspension concentrate intended for dilution with water. In certain applications, liquid fertilizer may replace water as diluent.

MIXING WITH WATER

For best results, fill spray tank with one fourth of the volume of clean water needed for the area to be treated. Start the agitation system and add Portfolio CA Herbicide to the tank. Make sure Portfolio CA Herbicide is thoroughly mixed before application or before adding another product to the spray tank.

USE OF SURFACTANTS

Temporary discoloration of some turf types may result from use of surfactants or adjuvants with Portfolio CA Herbicide. High temperatures and high relative humidity may increase the risk of temporary discoloration. Use of surfactants is not recommended.

MIXING WITH LIQUID FERTILIZERS

Utilize local recommendations for sources and rates of fertilizer and refer to mixing directions on the fertilizer labels (e.g. UAN or urea solutions). Determine the compatibility of this product with the desired fluid fertilizer by mixing small proportional quantities in advance (See the "TANK MIXTURES COMPATIBILITY" section below)

TANK MIXTURES COMPATIBILITY

Portfolio CA Herbicide is believed to be compatible with most herbicides, fungicides, insecticides, growth regulators, liquid fertilizers and spray adjuvants commonly used in turf and ornamental plant management. However, when preparing a new tank mix conduct an appropriate compatibility test by mixing proportional amounts of all spray ingredients in a test vessel (jar) prior to tank mixing with other products. Shake the mixture vigorously and allow it to stand for five to ten minutes. Rapid precipitation of the ingredients and failure to re-suspend when shaken indicates that the mixture is incompatible and should not be applied. Provided the jar test indicates the mixture to be compatible, prepare the tank mixture as follows: Fill the tank one fourth full with water. With the agitator operating, add the recommended amounts of ingredients using the following order: dry granules first, and liquid suspensions (flowables) second. As the agitation continues and the tank is filled with water add EC products third followed by the addition of water soluble products.

Read and observe mixing instructions of all tank mix partners. Also read each product's label for Directions for Use, Precautionary Statements and Restrictions and Limitations. The most restrictive labeling applies in all tank mixtures. No label dosage rate should be exceeded. Tank mixture recommendations are for use only in states where the companion products and application site are registered. In addition, certain states or geographical regions may have established dosage rate limitations. Consult your state Pesticide Control Agency for additional information regarding the maximum use rates.

Use Portfolio CA Herbicide spray mixture immediately after mixing. Do not store the mixture.

Ground Equipment

Power sprayers: Uniform and accurate spray coverage requires proper calibration and operation of spray equipment. The use of marker dyes or foams can improve application accuracy. Boom sprayers equipped with appropriate flat fan nozzles, tips and screens are ideal for broadcast applications. Power sprayers fitted with spray wand/gun may also be used for broadcast application after careful calibration by the applicator. Power sprayers fitted with spray wand/gun are suitable for spot treatments.

Hand operated sprayers: Backpack and compression sprayers are appropriate for small turfgrass areas and spot treatments. Wands fitted with a flat fan nozzle tip should be held stationary at the proper height during application. A side to side or swinging arm motion can result in uneven coverage.

Apply this product in a sufficient volume of carrier solution to provide a uniform spray distribution. Spray volumes of 20 – 175 gallons per acre (0.5 to 4.0 gal/1,000 ft^2) with spray pressures adjusted to 20 – 40 psi are appropriate. Apply the higher spray volumes for dense weed populations.

Sprayer Equipment Clean-Out

After spraying Portfolio CA Herbicide and before using sprayer equipment for any other applications, sprayer must be thoroughly cleaned using the following procedure:

1. Drain sprayer tank, hoses, and spray boom and thoroughly rinse the inside of the sprayer tank with clean water to remove sediment and residues. In addition, thoroughly flush sprayer hoses, boom, and nozzles with clean water.
2. Fill the tank 1/2 full with clean water, and add appropriate detergent or ammonia (follow manufacturer's directions for use). Fill the tank to capacity and operate the sprayer for 15 minutes to flush hoses, boom, and nozzles.
3. Drain the sprayer system. Rinse the tank with clean water and flush through the hoses, boom, and nozzles. Remove and clean spray tips and screens separately.
4. Properly dispose of all cleaning solution and rinsate in accordance with Federal, State and local regulations and guidelines.

Do not drain or flush equipment on or near desirable trees or plants. Do not contaminate any body of water including irrigation water that may be used on other plants.

Weed Control in Turfgrasses (42.3)

Use Precautions for Turf Use

Turfgrass Safety

This product may be used on seeded, sodded or sprigged turgrasses that are well established. First application of this product can be made following the second mowing providing the turfgrass has developed into a uniform stand with a good root system. Turfgrass injury could result from application of this product on turfgrass that is not well established or has been weakened by stresses such as unfavorable weather conditions, disease, chemical or mechanical influences.

When applied as directed under the conditions described, the following established turfgrasses are tolerant to Portfolio CA Herbicide at the recommended use rates in a range from 0.125 to 0.375 lb a.i./acre (4 to 12 fl. oz/acre or 0.092 to 0.275 fl. oz./1,000 sq. ft).

Table 27. Tolerant grasses.

Grass Type*	Maximum Use Rate Single Application		
Cool Season Grasses	lb ai/A	Fluid ounces per 1000 ft^2	Fluid ounces per acre
Bentgrass, creeping *(Agrostis sp.)*	0.125	0.092	4
Bluegrass, Kentucky *(Poa pratensis)* Bluegrass, Rough[2] *(Poa trivialis)* Fescue, fine[1] *(Festuca rubra)* Fescue, tall[1] *(Festuca arundinacea)* Ryegrass, perennial *(Lolium perenne)*	0.125 - .25	0.092 - 0.18	4 - 8
Warm Season Grasses			
Bahiagrass[2] *(Paspalum notatum)* Bermudagrass *(Cynodon dactylon)* & hybrids Buffalograss *(Buchloe dactyloides)* Carpetgrass *(Axonopus affinis)* Centipedegrass *(Eremochloa ophuiroides)* Kikuyugrass *(Pennisetum clandestinum)* Seashore Paspalum (Paspalum vaginatum) St.Augustinegrass *(Stenotaphrum secundatum)*[2] Zoysiagrass *(Zoysia japonica)*[2]	0.25 - 0.375	0.18 – 0.275	8 - 12

1. Use of this product on certain cultivars of Chewings Fescue Fine Fescue or Tall Fescue cultivars may result in undesirable injury.
2. Portfolio CA Herbicide application may cause temporary discoloration to exposed leaf surfaces on St. Augustinegrass and certain cultivars of zoysiagrass bahiagrass,.or rough bluegrass. Treated turfgrass will recover with new growth. Discolored leaf tissue will be removed with mowing. To reduce potential for discoloration, do not apply Portfolio CA Herbicide on turfgrass that is weakened by weather, mechanical, chemical, disease or other related stress. Maintain proper cultural practices such as adequate moisture and fertility levels to promote healthy turf growth.

* Portfolio CA Herbicide has demonstrated tolerance on both cool and warm season turfgrasses. However, not all varieties have been evaluated. Turfgrass managers desiring to treat newly released varieties should first apply Portfolio CA Herbicide to a small area prior to treatment of larger areas.

Application to reseeded, overseeded or sprigged areas:
Reseeding, overseeding or sprigging of treated areas within one (1) month after application of this product could inhibit the establishment of desirable turfgrasses. Overseeding of bermudagrass with perennial ryegrass at two (2) to four (4) weeks after an application can be done if slight injury to perennial ryegrass can be tolerated.

Best results are obtained for reseeding or overseeding when mechanical or power seeding equipment (slit seeders) are used to give good seed to soil contact and proper soil cultivation, irrigation and fertilization practices are followed.

Sod Production:
This product may be applied to established sod. Allow sod to establish a good root system, a uniform stand and to fill in the exposed edges. It is recommended that sod be established for at least three (3) months before an application of Portfolio CA Herbicide. Do not apply this product within three (3) months of harvest.

Other Use Precautions:
Do not apply to golf course putting greens or tees.

Do not use on turfgrasses other than those listed on this label.

Do not apply with surfactants unless previous experience has demonstrated combinations with surfactant to be physically compatible and non-injurious to the grass type in question.

Do not graze or feed livestock forage cut from areas treated with Portfolio CA Herbicide.

Do not apply directly to landscape ornamentals or ornamental beds.

Temporary turfgrass discoloration has been observed when Primo has been either tank-mixed or applied within 7 days of a Portfolio CA Herbicide application. It is recommended that Primo applications be made 7 days prior to, or after Portfolio CA Herbicide application to reduce risk of turfgrass discoloration.

PREEMERGENCE CONTROL OF ANNUAL GRASSES AND BROADLEAF WEEDS

Control of Summer Annual Weeds:
Apply Portfolio CA Herbicide at the application rate for the turf species being managed (4 to 12 fluid ounces/acre or 0.092 to 0.275 fl. oz./1,000 sq. ft.) prior to weed seed germination in early spring. Applications in early spring will control or suppress the following summer annuals:

Black medic	*(Medicago lupulina)*
Common purslane	*(Portulaca oleracea)*
Pigweed, Redroot	*(Amaranthus retroflexus)*
Pigweed, Smooth	*(Amaranthus hybridus)*
Prostrate knotweed	*(Polygonum aviculare)*
Spurge	*(Euphorbia spp.)*
Prostrate spurge	*(Euphorbia supina)*
Spotted spurge	*(Euphorbia maculata)*
Barnyardgrass	*(Echninochloa crusgalli)*
Crabgrass, large	*(Digitraria sanguinalis)*
Crabgrass, smooth	*(Digitaria ischaemum)*
Foxtail, green	*(Setaria viridis)*
Foxtail, yellow	*(Setaria glauca)*
Goosegrass	*(Eleusine indica)*

Control of Winter Annual Weeds:
Apply Portfolio CA Herbicide at the application rate for the turf species being managed (4 to 12 fluid ounces/acre or 0.092 to 0.275 fl. oz./1,000 sq. ft.) in late summer or early fall to control or suppress the following winter annual weeds:

Buttercups	*(Ranunculus spp.)*
Carolina geranium	*(Geranium carolinianum)*
Common chickweed	*(Stellaria media)*
Common groundsel	*(Senecio vulgaris)*
Corn Speedwell	*(Veronica arvensis)*
Hairy bittercress	*(Cardamine hirsuta)*
Henbit	*(Lamium amplexicaule)*
Johnnyjumpup violet	*(Viola rafeinesquii)*
Knawel	*(Scleranthus annuus)*
Large hop clover	*(Trifolium campestre)*
Mouseear chickweed	*(Cerastium vulgatum)*
Parsley-piert	*(Alchemilla microcarpa)*
Spurweed	(Soliva pterosperma)
Annual bluegrass	*(Poa annua)*
Annual ryegrass	*(Lolium multiflorum)*

To broaden the spectrum for preemergence control or suppression of annual grasses and/or broadleaf weeds, Portfolio CA Herbicide can be tank mixed with an EPA registered annual grass herbicide. Applications in combination with prodiamine, pendimethalin, dithiopyr or oxadiazon will provide broad spectrum control of the weeds listed in Table 28. Read the label recommendations of the tank mix partner to determine grass species safety, use rate and application procedures. Follow all label restrictions, use directions and precautionary statements before using these tank mixtures. Read and follow the "TANK MIXTURES COMPATIBILITY" section of this label for instructions on how to determine the compatibility of tank mixtures.

POSTEMERGENCE CONTROL OF ANNUAL, BIENNIAL & PERENNIAL BROADLEAF WEEDS
Portfolio CA Herbicide will control or suppress the weeds listed in Table 23 when applied alone shortly after weeds have emerged. Apply Portfolio CA Herbicide at rates from 4 to 12 fl. oz/acre (0.092 to 0.275 fl. oz./1,000 sq. ft.). Do not exceed the application rate specified for the turfgrass species in Table 27. To broaden the weed spectrum and increase effectiveness for certain weeds listed in Table 4, Portfolio CA Herbicide may be tank mixed with other EPA registered postemergence herbicides. Control of emerged annual grass weeds may be improved by combining Portfolio CA Herbicide with Acclaim®, Dimension®, MSMA or Drive®. Read the label recommendations of the tank mix partner to determine turfgrass species safety, use rate and application procedures. Follow all label restrictions, use directions and precautionary statements before using these tank mixtures. Read and follow the "TANK MIXTURES COMPATIBILITY" section of this label for instructions on how to determine the compatibility of tank mixtures.

When used as directed Portfolio CA Herbicide will control or suppress the following weeds.

Table 28. Weeds Controlled or Suppressed by Portfolio CA Herbicide

BROADLEAVES	SCIENTIFIC NAMES
Bedstraw, catchweed	*(Galium aparine)*
Beggarweed, Florida	*(Desmodium tortuosum)*
Bittercress	*(Cardamine spp.)*
Black medic	*(Medicago lupulina)*
Buttercups	*(Ranunculus spp.)*
Carolina geranium	*(Geranium carolinianum)*
Carpetweed	*(Mollugo verticillata)*
Chickweed, common	*(Stellaria media)*
Chickweed, mouseear	*(Cerastium vulgatum)*
Cinquefoil	*(Potentilla spp.)*
Clover	*(Trifolium spp.)*
Copperleaf	*(Ascalypha spp.)*
Cudweed	*(Gnaphalium spp.)*
Dandelion	*(Taraxacum officinale)*
Dock, Curly	*(Rumex crispus)*
Dollarweed	*(Hydrocotyl umbellata)*
Eclipta	*(Eclipta prostrata)*
Evening primrose	*(Oenothera biennis)*
Fiddleneck	*(Amsinckia spp.)*
Filaree	*(Erodium spp.)*
Galinsoga	*(Galinsoga ciliate)*
Goldenrod	*(Solidago spp.)*
Ground ivy	*(Glechoma hederacea)*

Groundsel, common	*(Senecio vulgaris)*
Henbit	*(Lamium amplexicaule)*
Knawel	*(Scleranthus annuus)*
Knotweed, prostrate	*(Polygonum aviculare)*
Kochia	*(Kochia scoparia)*
Lambsquarters, common	*(Chenopodium album)*
Lawn burweed (spurweed)	*(Soliva pterosperma)*
Lespedeza, common	*(Lespedeza striata)*
Mallow, common	*(Malva neglecta)*
Parsley piert	*(Alchemilla arvensis)*
Pigweed, Redroot	*(Amaranthus retroflexus)*
Pigweed, Smooth	*(Amaranthus hybridus)*
Pigweed, Tumble	*(Amaranthus albus)*
Pineapple weed	*(Matricaria matricarioides)*
Plantain, buckhorn	*(Plantago lanceolata)*
Puncture weed	*(Tribulus terrestris)*
Purslane, common	*(Portulaca oleracea)*
Pusley, Florida	*(Richardia scabra)*
Redweed	*(Melochia corchorifolia)*
Rocket, London	*(Sisymbrium irio)*
Shepherd's purse	*(Capsella bursa-pastoris)*
Smartweed, Pennsylvania	*(Polygonum pensylvanicum)*
Sorrel, Red	*(Rumex acetosella)*
Speedwell	*(Veronica spp.)*
Spurge, (annuals)	*(Euphorbia spp.)*
Spurge, prostrate	*(Euphorbia humistrata)*
Spurge, spotted	*(Euphorbia maculata)*
Star of Bethlehem	*(Ornithogalum umbellatum)*
Velvetleaf	*(Abutilon theophrasti)*
Violet, wild	*(Viola pratincola)*
Violet, Johnny-jump-up	*(Viola rafeinesquii)*
Wild garlic	*(Allium vineale)*
Wild onion	*(Allium canadense)*
Woodsorrel, creeping	*(Oxalis corniculata)*
Woodsorrel, yellow	*(Oxalis stricta)*

POSTEMERGENCE CONTROL OF ANNUAL AND PERENNIAL SEDGES

Portfolio CA Herbicide will control or suppress sedges (Table 29) when applied at a rate of 4 to 12 fl oz/acre (0.092 to 0.275 fl. oz./1,000 sq. ft.). Apply the highest rate consistent with the rate needed for turfgrass safety in Table 27. Rates lower than 12 fl oz/acre (0.275 fl. oz/1,000 sq. ft.) will generally control sedges for at least 60 days. A rate of 12 fl oz/acre (0.275 fl oz/1,000 sq. ft.) will provide approximately 75% control for at least 60 days. Yellow nutsedge (*Cyperus esculentus*) is the most susceptible sedge species.

Good spray coverage is needed for optimum control of sedges. Temporary discoloration of some turfgrass species may result from use of surfactant. Use of surfactants is not recommended.

Table 29. Sedge species controlled or suppressed by Portfolio CA Herbicide

Common Name	SCIENTIFIC NAME
Kyllinga, green	*(Kyllinga brevifolia)*
Kyllinga, false green	*(Kyllinga gracillima)*
Nutsedge, purple[1]	*(Cyperus rotundus)*
Nutsedge, yellow	*(Cyperus esculentus)*
Sedge, globe	*(Cyperus globulosus)*
Sedge, cylindric	*(Cyperus retrorsus)*
Sedge, Surinam	*(Cyperus surinamensis)*
Sedge, Texas	*(Cyperus polystachyos)*

1. PURPLE NUTSEDGE; For optimum control of purple nutsedge, split applications are recommended (Table 30). Apply 4-8 ounces per acre as an initial application followed by a second application when evidence of actively growing purple nutsedge is visible. Do not exceed the maximum rate per acre based on turfgrass variety listed in Table 27; Tolerant grases.

Table 30

Split Application Rate Options		
Grass Type	Option 1 (fluid ounces/acre)	Option 2 (fluid ounces/acre)
Cool Season Grasses excluding Bentgrass (see Table 1)	4 oz followed by 4 oz 35 DAIT	6 oz followed by 2 oz 35 DAIT
Warm Season Grasses (see Table 1)	8 oz followed by 4 oz 35 DAIT	6 oz followed by 6 oz 35 DAIT

DAIT = Days After Initial Treatment

POSTEMERGENCE CONTROL OF GRASSY WEEDS

Portfolio CA Herbicide will control or suppress specific annual grasses (Table 26) when applied at a rate of 4 to 12 fl oz/acre (0.092 to 0.275 fl. oz./1,000 sq. ft.). Apply the highest rate consistent with the rate needed for turfgrass tolerance in Table 27. Rates lower than 12 fl oz/acre (0.275 fl. oz/1,000 sq. ft.) will generally control grasses for at least 60 days. Portfolio CA Herbicide works best if applied when the annual grasses are small (pre tiller stage) and actively growing.

Good spray coverage is needed for optimum control of grasses. Temporary discoloration of some turfgrass species may result from use of surfactant. Use of surfactants is not recommended.

Table 30

Common Name	Scientific Name

Goosegrass	*Eleusine indica*

LABEL TRACKING INFORMATION (43.0)

Label Code: Portfolio CA Herbicide 09-21-09 ABN

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