

### UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION

January 13, 2016

Shannon Yanocha Product Registration Manager FMC Corporation 1735 Market Street Philadelphia, PA 19103

Subject: Label Amendment – Revisions to strawberry use section, addition of supplemental label for strawberries, and other minor changes. Product Name: F6285 4F CAL Herbicide EPA Registration Number: 279-3370 Application Date: 6/5/2015 Decision Number: 506297

Dear Ms. Yanocha:

The amended label referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act, as amended, is acceptable. This approval does not affect any conditions that were previously imposed on this registration. You continue to be subject to existing conditions on your registration and any deadlines connected with them.

A stamped copy of your labeling is enclosed for your records. This labeling supersedes all previously accepted labeling. You must submit one copy of the final printed labeling before you release the product for shipment with the new labeling. In accordance with 40 CFR 152.130(c), you may distribute or sell this product under the previously approved labeling for 18 months from the date of this letter. After 18 months, you may only distribute or sell this product if it bears this new revised labeling or subsequently approved labeling. "To distribute or sell" is defined under FIFRA section 2(gg) and its implementing regulation at 40 CFR 152.3.

Should you wish to add/retain a reference to the company's website on your label, then please be aware that the website becomes labeling under the Federal Insecticide Fungicide and Rodenticide Act and is subject to review by the Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 CFR 156.10(a)(5) list examples of statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product's label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the Agency find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA approved registration, the website will be referred to the EPA's Office of Enforcement and Compliance.

Your release for shipment of the product constitutes acceptance of these conditions. If these conditions are not complied with, the registration will be subject to cancellation in accordance

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with FIFRA section 6. If you have any questions, please contact Deirdre Sunderland by phone at (703)603-0851, or via email at Sunderland.deirdre@epa.gov.

Sincerely,

Tontaguo ditryn V. W

Kathryn Montague, Product Manager 23 Herbicide Branch Registration Division (7505P) Office of Pesticide Programs

Enclosure

# F6285 4F CAL Herbicide

EPA Reg. No. 279-3370

EPA Est. 279-

Active Ingredient:	By Wt.
Sulfentrazone	
Other Ingredients:	<u>60.4%</u>
-	100.0%

Contains 4 pounds of active ingredient per gallon.

## KEEP OUT OF REACH OF CHILDREN CAUTION

ACCEPTED 01/13/2016 Under the Federal Insecticide, Fungicide and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No. 070,0070

Group

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<sup>®.</sup> 279-3370

Herbicide

Si usted no etiende esta etiqueta, busque a alguien para que se la explique a usted en detalle, (If you do not understand this label, find someone to explain it to you in detail.

### **FIRST AID**

#### 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.

#### 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 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 in Eves

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.

### **HOTLINE NUMBER**

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.



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### **PRECAUTIONARY STATEMENTS**

#### Hazards to Humans and Domestic Animals

#### Caution

Harmful if swallowed. Harmful if absorbed through skin. Avoid contact with skin, eyes, or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove and wash contaminated clothing before reuse.

#### Personal Protective Equipment (PPE)

Applicators and other handlers must wear: long-sleeved shirt and long pants, chemical-resistant gloves made of barrier laminate, butyl rubber  $\ge$  14 mils, neoprene rubber  $\ge$  14 mils, polyvinyl chloride (PVC)  $\ge$  14 mils, or viton  $\ge$  14 mils, 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 exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

#### User Safety Recommendations: Users should: • Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

#### **Environmental Hazards**

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.

<u>Groundwater advisory:</u> 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.

<u>Surface water advisory</u>: 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

Do not use or store near heat or open flame.

### **DIRECTIONS FOR USE**

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 F6285 4F CAL per acre per twelve-month period as stated in Table3. The twelvemonth period is considered to begin upon the initial F6285 4F CAL application.

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

### AGRICULTURAL USE REQUIREMENTS

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

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 CHEMTREC (Transportation and spills): (800) 424-9300.

#### 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 Handling

**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 forth several times. Empty the finate the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment to a rix tank or store rinsate for later use or disposal. Triple rinse to dispose to drip. Repeat this procedure two more times. Triple rinse to 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

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**

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 listed rates and in accordance with the use directions. Do not use less than listed 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.

### **PRODUCT INFORMATION**

F6285 4F CAL is a selective soil-applied herbicide for the control of susceptible broadleaf, grass and sedge weeds. F6285 4F CAL 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 F6285 4F CAL treatment, a shallow incorporation may be needed to obtain desired weed control. When activating moisture is received after dry conditions, F6285 4F CAL will provide a reduced level of control of susceptible germinating weeds. Soil applications of F6285 4F CAL 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 F6285 4F CAL.

**Proper handling instructions:** F6285 4F CAL 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.

### **APPLICATION INSTRUCTIONS**

F6285 4F CAL 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 F6285 4F CAL rates that could result in adverse crop response.

All soil applications and the residual activity of post-plant applications of F6285 4F CAL 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, F6285 4F CAL can await activating moisture for extended periods (10 to 14 days or longer) depending on the soil parameters described above. Once activated, F6285 4F CAL 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 F6285 4F CAL, a shallow incorporation is recommended for destruction of any germinating weeds and to incorporate F6285 4F CAL. 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 F6285 4F CAL. 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 F6285 4F CAL HERBICIDE

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 Product 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 pertaining 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 Product 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 Product 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 Product 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 <a href="https://www.cdpr.ca.gov/docs/emon/grndwtr/gwp\_regs.htm">www.cdpr.ca.gov/docs/emon/grndwtr/gwp\_regs.htm</a>.

### F6285 4F CAL HERBICDE PRODUCT USE RATES

The following directions for the selection of F6285 4F CAL application rates are critical to achieve maximum performance and to insure maximum crop safety. The user is required to read and follow the specific F6285 4F CAL 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 F6285 4F CAL. This response is governed by the F6285 4F CAL 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

Sulfentrazone, the active ingredient in F6285 4F CAL, 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

Following the application of F6285 4F CAL 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	<u>FINE</u>
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 F6285 4F CAL 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 F6285 4F CAL 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 F6285 4F CAL 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 F6285 4F CAL 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 F6285 4F CAL 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**

### **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**

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

F6285 4F CAL 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 F6285 4F CAL 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 F6285 4F CAL 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.

F6285 4F CAL should be metered into the irrigation system continuously for the duration of the water application. F6285 4F CAL 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 F6285 4F CAL 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. F6285 4F CAL 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

F6285 4F CAL may be applied impregnated on dry fertilizers. When applied as directed with adequate soil coverage, F6285 4F CAL dry bulk fertilizer mixtures will provide satisfactory weed control.

Follow all F6285 4F CAL label directions regarding product use rates per acre, registered crops, incorporation, special instructions and precautions.

#### Apply F6285 4F CAL /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 F6285 4F CAL/dry fertilizer mixture.

#### Impregnation Directions

To impregnate F6285 4F CAL 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 F6285 4F CAL in a clean container using clear water. Slowly add the F6285 4F CAL/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 F6285 4F CAL 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 F6285 4F CAL dry bulk fertilizer with an accurately calibrated dry fertilizer spreader. The F6285 4F CAL 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 F6285 4F CAL use rates could result in possible crop response.

A minimum of 200 pounds of dry bulk fertilizer impregnated with the listed amount of F6285 4F CAL must be applied per acre to achieve adequate soil coverage for satisfactory weed control.

DO NOT impregnate F6285 4F CAL onto coated ammonium nitrate or limestone because these materials will not absorb the herbicide.

Refer to the appropriate crop section of the F6285 4F CAL label to determine the rate of F6285 4F CAL to be applied per acre. Use the following table to determine the amount of F6285 4F CAL 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 F6285 4F CAL to be impregnated on a ton of dry bulk fertilizer using the following formula:

2000		F6285 4F CAL use rat	te	ounces of F6285 4F CAL
	х	in fluid ounces	=	to be applied per
Pounds dry fertilizer		per acre		ton of fertilizer
per acre				

#### RATE CHART FOR IMPREGNATION OF DRY BULK FERTILIZERS WITH F6285 4F CAL

Table 2

	Ounces F62	85 4F CAL per ton	of fertilizer
	F6285 4F CAL Use Rate Per Acre		
Dry Fertilizer	8.0 Fluid	10.1 Fluid	12.0 Fluid

Rate (Ib/acre)	Ounces per Acre	Ounces per Acre	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**

F6285 4F CAL 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, F6285 4F CAL 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 federally approved compatibility agents may be beneficial to achieve and maintain a homogenous solution.

#### **Mixing Instructions for Liquid Fertilizer Applications**

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 F6285 4F CAL in a clean container with clean water using equal volumes of F6285 4F CAL and clean water. Slowly add the F6285 4F CAL/water slurry to the spray tank. Carefully rinse the slurry container, adding the rinsate to the spray tank. Better mixing of the F6285 4F CAL/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 F6285 4F CAL 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 F6285 4F CAL spray mixture immediately after mixing. Do not store the sprayer overnight or for any extended period of time with the F6285 4F CAL spray mixture remaining in the tank.

Do not premix F6285 4F CAL spray solutions in nurse tanks.

Follow all F6285 4F CAL 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 F6285 4F CAL and fertilizer mixture.

### SPRAY DRIFT REDUCTION ADVISORY

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

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 3/4 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**

**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 <sup>3</sup>/<sub>4</sub> 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 F6285 4F CAL

Drift of dilute spray mixtures containing F6285 4F CAL 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. F6285 4F CAL 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 F6285 4F CAL 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 F6285 4F CAL 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 F6285 4F CAL.

### MAXIMUM ALLOWABLE F6285 4F CAL USE PER ACRE PER 12 MONTH PERIOD\*

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

Сгор	Ounces F6285 4F CAL Per Acre	Pound Active Sulfentrazone Per Acre
Row Crops		
Corn	12.0	0.375
Edamame	6.0	0.1875
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
Sunflower subgroup	8.0	0.25

20B		
Tobacco	12.0	0.375
Vegetable Crops		
Asparagus	12.0	0.375
Brassica, head and	12.0	0.375
stem (Broccoli and		
Cabbage)		
Brassica, leafy	6.4	0.20
greens		
Dry Beans & Peas	8.0	0.25
Fruiting Vegetables	12.0	0.375
and Okra (except		
cucurbits)		
Horseradish	8.0	0.25
Melons	8.0	0.25
Dhuhash	0.0	0.25
Rhubarb	8.0	
Strawberry	12.0	0.375
Succulent Peas	6.0	0.1875
Turnips	8.0	0.25
Oil Crops		
Flax	12.0	0.375
Mint	12.0	0.375
Turf		
Sod Production	12.0	0.375
Permanent Crops		
Berries	12.0	0.375
Citrus	12.0	0.375
Grapes	12.0	0.375
Tree nuts	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 F6285 4F CAL application.

### **CROP ROTATIONAL RESTRICTIONS**

The following Table 4 shows the minimum interval in months from the time of the last F6285 4F CAL application until F6285 4F CAL treated soil can be replanted to the crops listed. When F6285 4F CAL 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 F6285 4F CAL 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.

<b>CROP ROTATIONAL RESTRICTIONS*</b> *
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Table 4	
Сгор	Interval (Months)
Alfalfa	12
Asparagus	Anytime
Barley	4
Berries	Anytime
Brassica, head and stem (Broccoli and Cabbage)	Anytime
Brassica, leafy greens	Anytime
Canola	24
Cereal Grains (Buckwheat, Oats, Pearl Millet, Proso Millet, Teosinte, Wild Rice)	12
Citrus	Anytime
Corn, Field	10
Corn, Pop	18
Corn, Sweet	18
Cotton	18
Dry Shell Peas and Beans	Anytime
Flax	Anytime
Fruting Vegetables (except cucurbits)	Anytime
Grapes	Anytime
Horseradish	Anytime

Melons	Anytime
Mint	Anytime
Peanuts	Anytime
Potatoes	Anytime
Rhubarb	Anytime
Rice	10
Rye	4
Sorghum	10 *
Soybeans and edamame	Anytime
Strawberry	Anytime
Succulent peas	Anytime
Sugar Beets	36
Sugarcane	Anytime
Sunflowers	Anytime
Sunflower subgroup 20B	Anytime
Sweet Potatoes	12
Triticale	4
Tobacco	Anytime
Tree nuts	Anytime
Turf	Anytime
Turnips	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**

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

Band Width Inches	v	Broadcast		Band Rate
Row Width Inches	~	Rate Per Acre	I	Danu Kale
Band Width Inches	х	Broadcast		Band Volume
Row Width Inches	^	Volume Per Acre		Banu Volume

### MIXING AND LOADING INSTRUCTIONS

F6285 4F CAL 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 F6285 4F CAL 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 F6285 4F CAL in a clean container using clean water. Slowly add the F6285 4F CAL/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 F6285 4F CAL is thoroughly mixed before application or before adding another product to the spray tank.

Use the F6285 4F CAL spray mixture immediately after mixing. Do not store the sprayer overnight or for any extended period of time with the F6285 4F CAL spray mixture remaining in the tank.

Do not premix F6285 4F CAL spray solutions in nurse tanks.

If F6285 4F CAL is tank mixed with other herbicides, all additional directions, restrictions and precautions for the tank mixture herbicides must be followed.

### SPRAYER EQUIPMENT CLEAN-OUT

As soon as possible after spraying F6285 4F CAL 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 F6285 4F CAL 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 F6285 4F CAL 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 F6285 4F CAL 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

When F6285 4F CAL is applied in accordance with the Application information and the specific crop use directions, F6285 4F CAL applied alone or in listed tank mixtures will provide control of the following weeds. Refer to the specific crop section.

Table 5	
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Table 5	
Common 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 I.
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	
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	

#### NUTSEDGE SUPPRESSION

Common Name	Scientific Name
Nutsedge, purple	Cyperus rotundus
Nutsedge, yellow	Cyperus esculentus

F6285 4F CAL Herbicide will aid in the management of yellow and purple nutsedge populations by weakening existing nutsedge plants. The degree of suppression depends on the rate of F6285 4F CAL applied, moisture, soil conditions, the depth of nutsedge nutlets, weather, and the interval between F6285 4F CAL application and nutsedge emergence in the spring.

Soil uptake is the major means of uptake by sedges however, postemergence applications to sedges allow F6285 4F CAL to be taken into the sedge through the foliage as well as soil uptake through the roots. Good spray coverage is required for optimum control of sedges especially when applying postemergence to the sedges. Use a quality federally approved nonionic surfactant (NIC) at the rate of 0.25% v/v when applying postemergence. Best suppressive activity is attained when nutsedge plants are small with 6 or fewer leaves.

### **REPLANTING INSTRUCTIONS**

If initial planting of labeled crops fails to produce a stand, only labeled crops for F6285 4F CAL or the tank mix partner; whichever is most restrictive, may be planted. Do not retreat field with F6285 4F CAL 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)

Table 6					
F6285	F6285 4F CAL Use Rate Table (Corn)				
	oring Early Preplant Preplant Incorporate	t, Preemergence, ar	nd		
Broadcast Rate		es F6285 4F CAL p	er acre		
Broaddat Nate	Soil Texture				
% Organic	Coarse				
Matter					
<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)

F6285 4F CAL may be applied in the fall as a preplant treatment prior to corn planting the following spring.

F6285 4F CAL can be used alone or in a tank mixture with other herbicides to control susceptible broadleaves, sedges and grasses in corn. Apply F6285 4F CAL in conventional tillage or conservation tillage (reduced tillage or no-tillage) cropping systems using rates listed in the Table 6. F6285 4F CAL 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 F6285 4F CAL runoff from rain or snowmelt that may occur following application. F6285 4F CAL 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 F6285 4F CAL 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 organic matter.

#### Early Preplant and Preemergence (Spring Applications)

F6285 4F CAL may be applied preplant on the soil surface in the spring to control weeds in conventional and conservation tillage systems. F6285 4F CAL 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. F6285 4F CAL 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, F6285 4F CAL may be tankmixed with insecticides including Mustang Max or Capture 2EC. If dry conditions persist following preemergence application of F6285 4F CAL, a shallow incorporation may be needed to activate the herbicide. If weeds are emerged at the time of F6285 4F CAL application, use a burndown herbicide in conjunction with F6285 4F CAL as needed. When planting into soil treated preplant with F6285 4F CAL, 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

F6285 4F CAL may be applied as a Preplant Incorporated treatment in the spring prior to planting in reduced and conventional tillage corn. F6285 4F CAL 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 F6285 4F CAL 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. F6285 4F CAL 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.

F6285 4F CAL 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 F6285 4F 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 Application Instructions, F6285 4F 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 F6285 4F CAL. Consult university or extension weed management specialists for additional information on specific local varieties or cultivars and any other pertinent information on F6285 4F CAL 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 F6285 4F CAL 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 F6285 4F CAL runoff from rain or snowmelt that may occur following application.

### EDAMAME (Vegetable Soybean)

	F6285 4F CAL Herbicid (Edaman		
Preemergence Applications		- /	
Broadcast Rate	Fluid Our	nces F6285 4F CAL Herbicide p	er acre
Soil Texture			
% Organic Matter	<u>Coarse</u>	<u>Medium</u>	Fine
<1.5	2.25 - 3.75	3.0 - 6.0	3.75 - 6.0
1.5 – 3.0	3.0 - 4.5	3.75 - 6.0	4.5 - 6.0
>3.0	3.75 - 6.0	4.5 - 6.0	5.25 - 6.0
Refer to the previous information on Use higher rates for soils of pH less			nde

Use higher rates for solis of pH less than 7.0 and lower rates for pH greater than 7.0 within the rate range

#### Preemergence

F6285 4F CAL Herbicide may be applied to edamame as a preemergence treatment at 6.0 fluid ounces (0.1875 pounds active) per acre. Applications should be made with ground equipment in a minimum of 10 gallons of finished spray per acre.

#### Precautions

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. F6285 4F CAL Herbicide use rates should be reduced in those areas. If applying F6285 4F CAL to course textured soils with less than 1.5% organic matter, wait a minimum of 7 days after application before planting. 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 F6285 4F 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 Application Instructions, F6285 4F 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 F6285 4F CAL Herbicide. Consult university or extension weed management specialists for additional information on specific local varieties or cultivars and any other pertinent information on F6285 4F CAL Herbicide under specific local conditions.

#### Restrictions

Do not apply more than 6.0 fluid ounces (0.1875 pound active) per twelve-month period. The twelve-month period is considered to begin upon the initial F6285 4F CAL Herbicide application. Do not apply to coarse soils classified as sand, which have less than 1% organic matter. Do not incorporate.

### FALLOW OR POST HARVEST BURNDOWN

F6285 4F CAL 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

F6285 4F CAL Use Rate Table (Fallow or Post Harvest Burndown)				
Fall and Spring Fallow Applications				
Broadcast Rate	ast Fluid Ounces F6285 4F CAL per acre			
	Soil Texture			
% Organic Matter	<u>Coarse</u> <u>Medium</u> <u>Fine</u>			
<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

F6285 4F CAL may be applied in the fall following crop harvest or in existing fallow fields to control or suppress weeds the following season. The F6285 4F CAL Rotational Crop Guidelines in Table 4 must be followed if crops are planted the next season. F6285 4F CAL 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 F6285 4F CAL runoff from rain or snow that may occur following application. F6285 4F CAL 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 F6285 4F CAL reaching the soil surface, a separate burndown application prior to the application of F6285 4F CAL will be required. Use listed rates of burndown herbicides in combination with F6285 4F CAL, or sequential applications as needed. Higher aerial spray volumes are required when there is a dense weed population or canopy.

F6285 4F CAL 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**

F6285 4F CAL 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 F6285 4F CAL. Follow the same use rate recommendations and application guidelines listed under the Fall Application section above.

#### Weeds Controlled

When applied according to directions, F6285 4F CAL 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 of this label.

#### Precautions

These Crop Specific Use directions are based upon the interactive effects of F6285 4F 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 Application Instructions, F6285 4F 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 F6285 4F CAL. Consult university or extension weed management specialists for additional information on specific local varieties or cultivars and any other pertinent information on F6285 4F CAL 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 F6285 4F CAL 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 F6285 4F CAL runoff from rain or snowmelt that may occur following application.

### PEANUTS

Apply F6285 4F CAL 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**

F6285 4F CAL may be preplant incorporated (to a depth no greater than 2 inches) up to 14 days prior to planting. Alternatively, F6285 4F CAL may be applied to the soil surface at planting, or within 12 hours after planting. Incorporation of F6285 4F CAL deeper than 2 inches can result in adverse crop response and/or inconsistent weed control. Do not use F6285 4F CAL 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 F6285 4F CAL plus a grass herbicide labeled for peanuts is recommended. Under conditions of exceptionally high weed populations or when weeds not controlled by F6285 4F CAL are anticipated, the use of suitable postemergent peanut herbicides is recommended. Broadcast apply the correct F6285 4F CAL use rate from the tables below, in a minimum of 10 gallons of water per acre of finished spray. Banded F6285 4F CAL application rates must be adjusted in proportion to the broadcast rate.

#### F6285 4F CAL Use Rates and Weeds Controlled in Coarse Soils<sup>1</sup>

When applied, as directed, at 4.8 fluid ounces (0.15 pound active ingredient) per acre, F6285 4F CAL 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, F6285 4F CAL 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 <sup>2</sup>	
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, F6285 4F CAL 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 <sup>3</sup>	

<sup>1</sup>Use rates are F6285 4F CAL 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 the table above. <sup>2</sup> Controls initial and several continuing flushes (germinations) of wild poinsettia.

<sup>3</sup> Purple nutsedge activity is based on preplant incorporated applications of F6285 4F CAL. 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 F6285 4F CAL application rate. Irrigation with alkaline (pH 8 to 9) water can result in adverse crop response. The extent of crop response is dependent on F6285 4F CAL application rate, soil type (including %OM and pH), timing (after F6285 4F 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 Weeds Controlled section (Table 5) in this label.

#### Precautions

These Crop Specific Use directions are based upon the interactive effects of F6285 4F 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 Application Instructions, F6285 4F 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 F6285 4F CAL. Consult university or extension weed management specialists for additional information on specific local varieties or cultivars and any other pertinent information on F6285 4F CAL under specific local conditions.

#### Restrictions

Do not apply more than 9.6 fluid ounces (0.3 lb ai) of F6285 4F CAL per acre per twelve-month period. The twelve-month period is considered to begin upon the initial F6285 4F 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

#### Table 8

F6285 4F CAL Use Rate Table (Potatoes)				
	Preemergence Application			
Broadcast Rate Fluid Ounces F6285 4F CAL per acre				
Soil Texture				
% Organic Matter	Coarse Medium Fine			
<1.5	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**

Apply F6285 4F CAL by aerial application as a preemergence treatment following planting and after dragoff, but prior to potato emergence. Optimum performance can be achieved if F6285 4F CAL 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 8 above. For control of emerged weeds at the time of the F6285 4F CAL application, an appropriate burndown herbicide and adjuvants labeled for potatoes may be tankmixed with F6285 4F CAL to control these weeds. Do not apply F6285 4F CAL if the potatoes have emerged from the soil as undesirable crop response may occur. F6285 4F CAL may be tankmixed with other soil-applied herbicides labeled for use in potatoes to improve weed management and increase weed control spectrum.

Apply F6285 4F CAL in a minimum of 10 gallons of spray by ground application and 5 gallons of spray by air.

#### **Chemigation Applications**

F6285 4F CAL may be applied to potatoes through sprinkler irrigation systems including center pivot, lateral move, end tow, solid set or hand move irrigation systems. Apply F6285 4F CAL 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. F6285 4F CAL 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 F6285 4F CAL 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 F6285 4F CAL 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, F6285 4F CAL 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 Weeds Controlled section (Table 5) in this label.

#### Precautions

Potato varieties may vary in their response to herbicide applications. When using F6285 4F CAL on an untested variety, always determine the crop tolerance before planting. Some potato varieties, including Sangre, Shepody and Snowden, have shown sensitivity to F6285 4F CAL. Caution should be used when planting these varieties on marginal coarse soils.

These Crop Specific Use directions are based upon the interactive effects of F6285 4F 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 Application Instructions, F6285 4F 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 F6285 4F CAL. Consult university or extension weed management specialists for additional information on specific local varieties or cultivars and any other pertinent information on F6285 4F CAL under specific local conditions.

#### Restrictions

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

Do not apply F6285 4F CAL 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 F6285 4F CAL application.

### SOYBEANS

Table	9
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Fall, Spring	Early Preplant, Preemergence	e, and Preplant Incorporated App	lications
Broadcast Rate	Fluid Ounces F6285 4F 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
	8.0 - 10.1	10.1 – 12.0	12.0

#### **Ground and Aerial Applications**

Apply F6285 4F CAL in conventional tillage, conservation tillage, reduced tillage or no-tillage cropping systems using rates listed in the F6285 4F CAL Use Rate Table 9. F6285 4F CAL 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**

F6285 4F CAL 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. F6285 4F CAL 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. F6285 4F CAL applied near or after crop emergence may cause severe injury to the crop. F6285 4F CAL can be applied alone or in combination with other labeled soybean herbicides. F6285 4F CAL 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 F6285 4F CAL in no-till or minimum till cropping systems, tank mix with an appropriate burndown herbicide for improved control of existing weeds.

#### Fall Applications

F6285 4F CAL 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 F6285 4F CAL must be made in weed control programs that include, as needed, spring

applications of preplant, preemergence or postemergence herbicides for the following crop season. F6285 4F CAL 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 F6285 4F CAL 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, F6285 4F CAL 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 Weeds Controlled section (Table 5) in this label.

#### Precautions

When applying F6285 4F CAL with other registered herbicides, refer to specific label information on precautions, instructions, limitations, application methods and timings, and weeds controlled.

F6285 4F CAL 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 F6285 4F 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 Application Instructions, F6285 4F 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 F6285 4F CAL. Consult university or extension weed management specialists for additional information on specific local varieties or cultivars and any other pertinent information on F6285 4F CAL under specific local conditions.

#### Restrictions

Do not apply more than 12.0 fluid ounces (0.375 lbs active) per acre of F6285 4F CAL per twelve-month period. The twelve-month period is considered to begin upon the initial F6285 4F CAL 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 F6285 4F CAL runoff from rain or snowmelt that may occur following application.

Do not apply after crop seed germination.

### SUGARCANE

Table 10

	F6285 4F CAL Use R	ate Table (Sugarcane)	
	Planting Time and	Lay-by Applications	
Broadcast Rate	Fluid Ounces F6285 4F 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 - 8.3	8.0 - 10.1	10.1
>3	8.0 - 10.1	10.1 – 12.0	12.0
		ARSE, MEDIUM, and FINE cate	
Use higher rates for soils of p	H less than 7.0 and lower rates	for pH greater than 7.0 within th	e rate range.

Apply F6285 4F CAL as a broadcast or banded preemerge soil applied treatment for the control of broadleaf weeds, grasses and sedges in sugarcane. Refer to the F6285 4F CAL Product Use Rate Section and Table 10 for specific use information.

#### Planting Time Applications

Apply F6285 4F CAL 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. F6285 4F CAL may be applied with other herbicides registered for use in sugarcane.

#### **Aerial Applications**

F6285 4F CAL may be applied by air in a minimum of 5 gallons of finished spray per acre. F6285 4F CAL may be applied with other herbicides or insecticides registered for aerial application in sugarcane.

#### Lay-by Applications

Apply F6285 4F CAL 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. F6285 4F CAL may be applied with other herbicides registered for use in sugarcane.

#### Weeds Controlled

When applied according to directions, F6285 4F CAL 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 Weeds Controlled section (Table 5) in this label.

#### Precautions

These Crop Specific Use directions are based upon the interactive effects of F6285 4F 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 Application Instructions, F6285 4F 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 F6285 4F CAL. Consult university or extension weed management specialists for additional information on specific local varieties or cultivars and any other pertinent information on F6285 4F CAL under specific local conditions.

#### Restrictions

Pre-harvest Interval (PHI): 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 F6285 4F CAL per acre per twelve-month period. The twelve-month period is considered to begin upon the initial F6285 4F CAL application.

### **SUNFLOWERS**

Table 11	
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F6285 4F CAL Use Rate Table (Sunflowers)			
Fall, Early Spring Preplant, Preemergence, and Preplant Incorporated Applications			
Broadcast Rate	Fluid Ounces F6285 4F CAL 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**

F6285 4F CAL may be applied in the fall as a preplant treatment to control or suppress weeds prior to planting the following spring. F6285 4F CAL 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 F6285 4F CAL runoff from rain or snow melt that may occur following application. F6285 4F CAL may be tank mixed with other residual soil herbicides that are labeled for fall use on sunflowers or other crops in subgroup 20B. If weeds are emerged at the time of F6285 4F CAL application, use a burndown herbicide such as glyphosate or paraquat at the full-labeled rate in combination with F6285 4F CAL or split application as needed. Select the appropriate rate from Table 11 above within the correct soil type and organic matter range. When applying F6285 4F CAL 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)

F6285 4F CAL may be applied preplant on the soil surface in the spring to control weeds. F6285 4F CAL 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. If applying F6285 4F CAL to course textured soils with less than 1.5% organic matter, wait a minimum of 7 days after application before planting. F6285 4F CAL to can be tank mixed with other preemerge herbicides labeled for sunflowers or other crops in subgroup 20B. If dry conditions persist following preemerge application of F6285 4F CAL, a shallow incorporation may be needed to incorporate and activate the herbicide. If weeds are emerged at the time of F6285 4F CAL application, use a burndown herbicide at the full-labeled rate in combination with F6285 4F CAL or split application as needed.

#### Preplant Incorporated (PPI)

F6285 4F CAL may be applied as a Preplant Incorporated treatment in the spring prior to planting in reduced and conventional tillage. F6285 4F CAL should be shallowly incorporated in the soil no deeper than 2 inches. Incorporating F6285 4F CAL deeper than 2 inches can result in inconsistent weed control. Use the appropriate rate from Table 11 above for the soil texture, organic matter, and pH level. F6285 4F CAL can be tankmixed with other soil-applied herbicides labeled for preplant incorporation in sunflowers or other crops in subgroup 20B.

#### Weeds Controlled

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 Weeds Controlled section (Table 5) in this label.

#### NUTSEDGE SUPPRESSION

Common Name	Scientific Name
Nutsedge, purple	Cyperus rotundus
Nutsedge, yellow	Cyperus esculentus

F6285 4F CAL Herbicide will aid in the management of yellow and purple nutsedge populations by weakening existing nutsedge plants. The degree of suppression depends on the rate of F6285 4F CAL applied, moisture, soil conditions, the depth of nutsedge nutlets, weather, and the interval between F6285 4F CAL application and nutsedge emergence in the spring.

Soil uptake is the major means of uptake by sedges however, postemergence applications to sedges allow F6285 4F CAL to be taken into the sedge through the foliage as well as soil uptake through the roots. Good spray coverage is required for optimum control of sedges especially when applying postemergence to the sedges. Use a quality federally approved nonionic surfactant (NIC) at the rate of 0.25% v/v when applying postemergence. Best suppressive activity is attained when nutsedge plants are small with 6 or fewer leaves.

#### Precautions

When applying F6285 4F CAL 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 F6285 4F CAL 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. F6285 4F CAL 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 F6285 4F 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 Application Instructions, F6285 4F 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 F6285 4F

CAL. Consult university or extension weed management specialists for additional information on specific local varieties or cultivars and any other pertinent information on F6285 4F CAL under specific local conditions.

#### Restrictions

Do not apply more than 8.0 fluid ounces (0.25 pound active) of F6285 4F CAL per twelve-month period to sunflowers. The twelvemonth period is considered to begin upon the initial F6285 4F CAL application.

Do not apply to frozen soils or existing snow cover to prevent F6285 4F CAL 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.

### **SUNFLOWER SUBGROUP 20B**

Calendula, Castor oil plant, Chinese tallowtree, Euphorbia, Evening primrose, Jojoba, Niger seed, Rose hip, Safflower, Stokes aster, Sunflower, Tallowwood, Tea oil plant, Vernonia, cultivars, varieties and/or hybrids of these.

Table 12

F6285 4F CAL Use Rate Table (Sunflower subgroup 20B)			
Fall, Early Spring Preplant, Preemergence, and Preplant Incorporated Applications			
Broadcast Rate	Fluid Ounces F6285 4F CAL 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			

#### Fall Applications

F6285 4F CAL may be applied in the fall as a preplant treatment to control or suppress weeds prior to planting the following spring. F6285 4F CAL 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 F6285 4F CAL runoff from rain or snow melt that may occur following application. F6285 4F CAL may be tank mixed with other residual soil herbicides that are labeled for fall use on sunflowers or other crops in subgroup 20B. If weeds are emerged at the time of F6285 4F CAL application, use a burndown herbicide such as glyphosate or paraquat at the full-labeled rate in combination with F6285 4F CAL or split application as needed. Select the appropriate rate from Table 12 above within the correct soil type and organic matter range. When applying F6285 4F CAL 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)

F6285 4F CAL may be applied preplant on the soil surface in the spring to control weeds. F6285 4F CAL 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. If applying F6285 4F CAL to course textured soils with less than 1.5% organic matter, wait a minimum of 7 days after application before planting. F6285 4F CAL to can be tank mixed with other preemerge herbicides labeled for sunflowers or other crops in subgroup 20B. If dry conditions persist following preemerge application of F6285 4F CAL, a shallow incorporation may be needed to incorporate and activate the herbicide. If weeds are emerged at the time of F6285 4F CAL application, use a burndown herbicide at the full-labeled rate in combination with F6285 4F CAL or split application as needed.

#### **Preplant Incorporated (PPI)**

F6285 4F CAL may be applied as a Preplant Incorporated treatment in the spring prior to planting in reduced and conventional tillage. F6285 4F CAL should be shallowly incorporated in the soil no deeper than 2 inches. Incorporating F6285 4F CAL deeper than 2 inches can result in inconsistent weed control. Use the appropriate rate from table above for the soil texture, organic matter, and pH level. F6285 4F CAL can be tankmixed with other soil-applied herbicides labeled for preplant incorporation in sunflowers or other crops in subgroup 20B.

#### Weeds Controlled

When applied according to direction	s, F6285 4F CAL 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 Weeds Controlled section (Table 5) in this label.

#### NUTSEDGE SUPPRESSION

Common Name	Scientific Name
Nutsedge, purple	Cyperus rotundus
Nutsedge, yellow	Cyperus esculentus

F6285 4F CAL Herbicide will aid in the management of yellow and purple nutsedge populations by weakening existing nutsedge plants. The degree of suppression depends on the rate of F6285 4F CAL applied, moisture, soil conditions, the depth of nutsedge nutlets, weather, and the interval between F6285 4F CAL application and nutsedge emergence in the spring.

Soil uptake is the major means of uptake by sedges however, postemergence applications to sedges allow F6285 4F CAL to be taken into the sedge through the foliage as well as soil uptake through the roots. Good spray coverage is required for optimum control of sedges especially when applying postemergence to the sedges. Use a quality federally approved nonionic surfactant (NIC) at the rate of 0.25% v/v when applying postemergence. Best suppressive activity is attained when nutsedge plants are small with 6 or fewer leaves.

#### Precautions

When applying F6285 4F CAL 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 F6285 4F CAL 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. F6285 4F CAL 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 F6285 4F 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 Application Instructions, F6285 4F 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 F6285 4F CAL. Consult university or extension weed management specialists for additional information on specific local varieties or cultivars and any other pertinent information on F6285 4F CAL under specific local conditions.

#### Restrictions

Do not apply more than 8.0 fluid ounces (0.25 pound active) of F6285 4F CAL per twelve-month period. The twelve-month period is considered to begin upon the initial F6285 4F CAL application.

Do not apply to frozen soils or existing snow cover to prevent F6285 4F CAL runoff from rain or snowmelt that may occur following application.

Do not apply using a mechanically pressurized handgun to crops in subcrop group 20B, not including sunflowers.

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)

Table	13	

Broadcast Rate	Flu	id Ounces F6285 4F CAL per ac	re
		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

F6285 4F CAL 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 F6285 4F CAL deeper than 2 inches can result in inconsistent weed control.

Broadcast apply the appropriate F6285 4F CAL rate from table 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)

Perform all accepted cultural practices for land preparation, fertilizer/fungicide incorporation, etc. prior to the application of F6285 4F CAL. Once the field has been prepared for planting, F6285 4F CAL may be surface applied or lightly preplant incorporated from 14 days to 12 hours prior to transplanting.

If F6285 4F CAL 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)

Apply F6285 4F CAL 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 F6285 4F CAL application.

When incorporating prior to bedding, F6285 4F CAL must be thoroughly and uniformly incorporated to a depth no greater than 2 inches to avoid concentrating F6285 4F CAL 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 F6285 4F CAL, 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, F6285 4F CAL 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 Weeds 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 affect 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 F6285 4F 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 Application Instructions, F6285 4F 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 F6285 4F CAL. Consult university or extension weed management specialists for additional information on specific local varieties or cultivars and any other pertinent information on F6285 4F CAL under specific local conditions.

#### Restrictions

#### Do not use on Shade Grown Tobacco

Do not apply F6285 4F CAL to soils classified as sands containing less than 1% organic matter.

Do not use F6285 4F CAL in tobacco seeding beds or greenhouses.

Do not apply F6285 4F CAL post-transplant as unacceptable injury may occur.

Do not perform tillage practices that concentrate F6285 4F CAL into the bed or crop injury may occur.

Do not apply more than 12.0 fluid ounces (0.375 lbs active) per acre of F6285 4F CAL per acre per twelve-month period. The twelve-month period is considered to begin upon the initial F6285 4F CAL application.

Do not incorporate greater than 2 inches deep.

## **VEGETABLE CROPS**

Before applying F6285 4F CAL 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 2 of this label.

### ASPARAGUS

Table 14

F6285 4F CAL Use Rate Table (Asparagus) Spring Preemergence Applications				
Broadcast Rate Fluid Ounces F6285 4F 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			
>3.0 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 F6285 4F CAL as a broadcast treatment to crowns established for one or more years.

Apply in the spring before the crop and weeds emerge. F6285 4F CAL 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. F6285 4F CAL may be applied with other pesticides registered for use with asparagus.

#### Weeds Controlled

When Applied according to directions, F6285 4F CAL 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 Weeds Controlled section (Table 5) in this label.

#### NUTSEDGE SUPPRESSION

Common Name	Scientific Name
Nutsedge, purple	Cyperus rotundus
Nutsedge, yellow	Cyperus esculentus

F6285 4F CAL Herbicide will aid in the management of yellow and purple nutsedge populations by weakening existing nutsedge plants. The degree of suppression depends on the rate of F6285 4F CAL applied, moisture, soil conditions, the depth of nutsedge nutlets, weather, and the interval between F6285 4F CAL application and nutsedge emergence in the spring.

Soil uptake is the major means of uptake by sedges however, postemergence applications to sedges allow F6285 4F CAL to be taken into the sedge through the foliage as well as soil uptake through the roots. Good spray coverage is required for optimum control of sedges especially when applying postemergence to the sedges. Use a quality federally approved nonionic surfactant (NIC) at the rate of 0.25% v/v when applying postemergence. Best suppressive activity is attained when nutsedge plants are small with 6 or fewer leaves.

#### Precautions

These Crop Specific Use directions are based upon the interactive effects of F6285 4F 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 Application Instructions, F6285 4F 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 F6285 4F CAL. Consult university or extension weed management specialists for additional information on specific local varieties or cultivars and any other pertinent information on F6285 4F CAL 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 F6285 4F CAL application per acre per 12-month period. The twelve-month period is considered to begin upon the initial F6285 4F CAL application.

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

### **BRASSICA, HEAD AND STEM**

Broccoli, Chinese broccoli, brussels sprouts, Chinese (napa) cabbage, Chinese mustard, cauliflower, cavalo broccoli, kohlrabi

#### Table 15

F6285 4F CAL Herbicide Use Rate Table				
(Head and Stem Brassica)				
Fall or Spring Early Preplant, Preemergence, and Preplant Incorporated Applications				
Broadcast Rate	Fluid Ounces F	6285 4F CAL Herb	icide per acre	
Soil Texture				
% Organic Matter	<u>Coarse</u>	<u>Medium</u>	<u>Fine</u>	
<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 %	>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 and Preemergence (Fall Application or Spring Application)

F6285 4F CAL Herbicide may be applied in the fall or spring preceding the growing season up to 72 hours prior to transplanting head and stem brassica. F6285 4F 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 F6285 4F CAL Herbicide runoff from rain or snow that may occur following application. F6285 4F CAL Herbicide should be applied to the fall or spring or with residual soil herbicides that are labeled for use on head and stem brassica. Use the listed rates of burndown herbicides in combination with F6285 4F 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)**

F6285 4F CAL Herbicide may be applied as a preplant incorporated treatment in the spring prior to transplanting head and stem brassica. Do not incorporate to depths greater than 2 inches. F6285 4F CAL Herbicide can be tank mixed with other burndown or soil-applied herbicides labeled for use in head and stem brassica. Use the listed 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, F6285 4F CAL Herbicide will provide control of:

Galinsoga, hairy	Waterhemp, common
Lambsquarters, common	Waterhemp, tall
Pigweed, redroot	

#### Precautions

These Crop Specific Use directions are based upon the interactive effects of F6285 4F 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 Application Instructions, F6285 4F 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 F6285 4F CAL Herbicide. Consult university or extension weed management specialists for additional information on specific local varieties or cultivars and any other pertinent information on F6285 4F CAL Herbicide under specific local conditions.

#### Restrictions

Do not apply more than 12.0 ounces (0.375 pound active) per acre of F6285 4F CAL Herbicide per application or per twelve-month period. The twelve-month period is considered to begin upon the initial F6285 4F CAL 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.

### **BRASSICA, LEAFY GREENS**

Broccoli raab, Chinese (bok choy) cabbage, collards, kale, mizuna, mustard greens, mustard spinach, rape greens

Table 16			
F6285 4F CAL Herbicide Use Rate Table			
(Leafy Brassica)			
Fall or Spring Early Preplant, Preemergence, and Preplant Incorporated			
	Applicat	tions	
Broadcast Rate Fluid Ounces F6285 4F CAL Herbicide per acre			
Soil Texture			
% Organic	Coarse	Medium	Fine
Matter			
<1.5%	2.25 - 3.0	3.0 – 4.5	3.0 - 6.0
1.5 – 3.0 %	3.0 - 6.0	6.0 - 6.4	6.0 - 6.4
>3.0 %	6.0 - 6.4	6.0 - 6.4	6.0 - 6.4
Refer to the previous information on soil types under the COARSE,			
MEDIUM, and FINE categories.			
Use higher rates for	or soils of pH less	s than 7.0 and low	er rates for pH
greater than 7.0 wit	hin the rate range.		

#### Early Preplant and Preemergence (Fall Application or Spring Application)

F6285 4F CAL Herbicide may be applied in the fall or spring preceding the growing season up to 72 hours prior to planting leafy brassica. F6285 4F 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 F6285 4F CAL Herbicide runoff from rain or snow that may occur following application. F6285 4F CAL Herbicide may be tank mixed with other burndown herbicides to control emerged weeds in the fall or spring or with residual soil herbicides that are labeled for use on cabbage. Use the listed rates of burndown herbicides in combination with F6285 4F 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)

F6285 4F CAL Herbicide may be applied as a preplant incorporated treatment in the spring prior to planting leafy brassica. Do not incorporate to depths greater than 2 inches. F6285 4F CAL Herbicide can be tank mixed with other burndown or soil-applied herbicides labeled for use in leafy brassica. Use the listed 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, F6285 4F CAL Herbicide will provide control of:

Galinsoga, hairy	Waterhemp, common
Lambsquarters, common	Waterhemp, tall
Pigweed, redroot	

#### Precautions

These Crop Specific Use directions are based upon the interactive effects of F6285 4F 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 Application Instructions, F6285 4F 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 F6285 4F CAL Herbicide. Consult university or extension weed management specialists for additional information on specific local varieties or cultivars and any other pertinent information on F6285 4F CAL Herbicide under specific local conditions.

#### Restrictions

Do not apply more than 6.4 fluid ounces (0.20 pound active) per acre of F6285 4F CAL Herbicide per application or per twelvemonth period. The twelve-month period is considered to begin upon the initial F6285 4F CAL 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.

### **CABBAGE** (Transplanted Only)

#### Table 17

		ce, and Preplant Incorporated A	
Broadcast Rate	Fluid Ounces F6285 4F CAL per acre		
	Soil Texture		
% Organic Matter	<u>Coarse</u>	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
	6.0 - 9.0	6.0 - 12.0	6.0 - 12.0

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

F6285 4F CAL 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. F6285 4F CAL may be applied in the spring from 60 days prior to planting up to planting time. F6285 4F CAL 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 F6285 4F CAL runoff from rain or snow that may occur following application. F6285 4F CAL 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 listed rates of burndown herbicides in combination with F6285 4F CAL, 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)

F6285 4F CAL 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. F6285 4F CAL can be tankmixed with other burndown or soil-applied herbicides labeled for use in cabbage. Use the listed 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

F6285 4F CAL 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. F6285 4F CAL may be applied as a banded treatment into the row middles within 72 hours after transplanting.

#### Weeds Controlled

When Applied according to directions, F6285 4F CAL will provide control of:

Galinsoga, hairy	Waterhemp, common
Lambsquarters, common	Waterhemp, tall
Pigweed, redroot	

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

#### Precautions

These Crop Specific Use directions are based upon the interactive effects of F6285 4F 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 Application Instructions, F6285 4F 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 F6285 4F CAL. Consult university or extension weed management specialists for additional information on specific local varieties or cultivars and any other pertinent information on F6285 4F CAL under specific local conditions.

#### Restrictions

Do not apply more than 12 fluid ounces (0.375 pound active) per acre of F6285 4F CAL per application or per twelve-month period. The twelve-month period is considered to begin upon the initial F6285 4F CAL 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

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 18			
F6285	5 4F CAL Use Rate Tab	ole (Dry Shelled Beans I	Peas)
Fall or Spring	Early Preplant, Preemergen	ce, and Preplant Incorporated	Applications
Broadcast Rate	Broadcast Rate Fluid Ounces F6285 4F CAL per acre		
	Soil Texture		
% Organic Matter	<u>Coarse</u>	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	n on soil types under the COA	ARSE, MEDIUM, and FINE cate	egories
Use higher rates for soils of pH	less than 7.0 and lower rates	for pH greater than 7.0 within t	he rate range.

#### Early Preplant and Fall Applications

F6285 4F CAL may be applied in the fall as a preplant treatment to control or suppress weeds prior to planting the following spring. F6285 4F CAL 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 F6285 4F CAL runoff from rain or snow melt that may occur following application. F6285 4F CAL 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 F6285 4F CAL application, use a burndown herbicide such as glyphosate or paraquat at the full-labeled rate in combination with F6285 4F CAL or split application as needed. Select the appropriate rate from Table 18 above within the correct soil type and organic matter range. When applying F6285 4F CAL 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)

F6285 4F CAL may be applied preplant on the soil surface in the spring to control weeds in dry bean and dry peas. F6285 4F CAL 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. If applying F6285 4F CAL to course textured soils with less than 1.5% organic matter, wait a minimum of 7 days after application before planting. F6285 4F CAL can be tank mixed with other preemerge herbicides labeled for dry bean and dry peas use. If dry conditions persist following preemerge application of F6285 4F CAL, a shallow incorporation may be needed to incorporate and activate the herbicide. If weeds are emerged at the time of F6285 4F CAL application, use a burndown herbicide at the full-labeled rate in combination with F6285 4F CAL or split application as needed.

#### Preplant Incorporated (PPI)

F6285 4F CAL 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. F6285 4F CAL use rates for PPI applications are similar to those used in preplant and preemergence applications. F6285 4F CAL can be tankmixed with other burndown or soil-applied herbicides labeled for use in dry bean or dry pea. Use the listed 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, F6285 4F CAL 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 Weeds Controlled section (Table 5) in this label.

#### Precautions

When applying F6285 4F CAL 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 F6285 4F CAL 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. F6285 4F CAL 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 F6285 4F 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 Application Instructions, F6285 4F 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 F6285 4F CAL. Consult university or extension weed management specialists for additional information on specific local varieties or cultivars and any other pertinent information on F6285 4F CAL 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 F6285 4F 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 F6285 4F CAL 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.

### FRUITING VEGETABLES (EXCEPT CUCURBITS) AND OKRA

African eggplant; bush tomato; bell pepper; cocona; currant tomato; eggplant; garden huckleberry; goji berry; groundcherry; martynia; naranjilla; okra; pea eggplant; pepino; pepper , bell; pepper, nonbell; roselle; scarlet eggplant; sunberry; tomatillo; tomato; tree tomato; cultivars, varieties, and/or hybrids of these

#### Table 19

F6285 4F CAL Herbicide Use Rate Table (Fruiting					
Vegetables, except cucurbits, and Okra)					
0	Preplant Applications				
Broadcast Rate					
	Soil Texture				
% Organic	Coarse Medium Fine				
Matter					
<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 lowest rates for pH					
greater than 7.0 wit	hin the rate range.				

#### Preplant Applications

F6285 4F CAL Herbicide may be applied preemergence as a broadcast or banded treatment on fruiting vegetables. Applications must be made prior to transplant. F6285 4F CAL Herbicide can be tankmixed with other burndown or soil-applied herbicides labeled for use on tomatoes. Use the listed 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.

#### Preplant Incorporated (PPI)

F6285 4F CAL Herbicide may be applied as a preplant incorporated treatment in the spring prior to transplanting tomatoes. Do not incorporate to depths greater than 2 inches. F6285 4F CAL Herbicide can be tankmixed with other burndown or soil-applied herbicides labeled for use on tomatoes. Use the full, listed 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, F6285 4F CAL Herbicide will provide control of:

Lambsquarters, common	Waterhemp, common
(Morningglory, ivyleaf	Waterhemp, tall
Pigweed, redroot	

#### NUTSEDGE SUPPRESSION

Common Name	Scientific Name
Nutsedge, purple	Cyperus rotundus
Nutsedge, yellow	Cyperus esculentus

F6285 4F CAL Herbicide will aid in the management of yellow and purple nutsedge populations by weakening existing nutsedge plants. The degree of suppression depends on the rate of F6285 4F CAL applied, moisture, soil conditions, the depth of nutsedge nutlets, weather, and the interval between F6285 4F CAL application and nutsedge emergence in the spring.

Soil uptake is the major means of uptake by sedges however, postemergence applications to sedges allow F6285 4F CAL to be taken into the sedge through the foliage as well as soil uptake through the roots. Good spray coverage is required for optimum control of sedges especially when applying postemergence to the sedges. Use a quality federally approved nonionic surfactant (NIC) at the rate of 0.25% v/v when applying postemergence. Best suppressive activity is attained when nutsedge plants are small with 6 or fewer leaves.

#### Precautions

These Crop Specific Use directions are based upon the interactive effects of F6285 4F 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 Application Instructions, F6285 4F 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 F6285 4F CAL Herbicide. Consult university or extension weed management specialists for additional information on specific local varieties or cultivars and any other pertinent information on F6285 4F CAL Herbicide under specific local conditions.

#### Restrictions

Do not apply more than 12.0 ounces (0.375 pound active) per acre of F6285 4F CAL Herbicide per application or per twelve-month period. The twelve-month period is considered to begin upon the initial F6285 4F CAL application.

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

### HORSERADISH

Table 20

F6285 4F CAL Use Rate Table (Horseradish)					
Fall or Spri	Fall or Spring Early Preplant, Preemergence, and Preplant Incorporated Applications				
Broadcast Rate	Broadcast Rate Fluid Ounces F6285 4F CAL 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.					

F6285 4F CAL 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)

F6285 4F CAL 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. F6285 4F CAL may be applied in the spring from 60 days prior to planting up to planting. F6285 4F CAL 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 F6285 4F CAL runoff from rain or snow that may occur following application. F6285 4F CAL 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 listed rates of burndown herbicides in combination with F6285 4F CAL, 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)

F6285 4F CAL 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. F6285 4F CAL can be tankmixed with other burndown or soil-applied herbicides labeled for use on horseradish. Use the listed 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)**

F6285 4F CAL 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. F6285 4F CAL may be applied as a banded treatment into the row middles after crop emergence. Use the higher F6285 4F CAL rates on clay soils and/or soils with greater than 1% organic matter. F6285 4F CAL may be applied with other pesticides registered for use on horseradish.

#### Weeds Controlled

When applied according to directions, F6285 4F CAL 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 Weeds Controlled section (Table 5) in this label.

#### Precautions

These Crop Specific Use directions are based upon the interactive effects of F6285 4F 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 Application Instructions, F6285 4F 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 F6285 4F CAL. Consult university or extension weed management specialists for additional information on specific local varieties or cultivars and any other pertinent information on F6285 4F CAL under specific local conditions.

#### Restrictions

Do not apply more than 8.0 fluid ounces (0.25 pound active) per acre of F6285 4F CAL per application or per twelve-month period. The twelve-month period is considered to begin upon the initial F6285 4F CAL 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.

### **MELONS**

Citron melon, muskmelon, watermelon

#### Table 21

F6285 4F CAL Herbicide Use Rate Table (Melons)				
Pre-emergence Applications				
Broadcast Rate Fluid Ounces F6285 4F 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 – 6.8	
>3.0	3.75 – 6.0	4.5 – 6.8	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.

#### Pre-emergence

F6285 4F CAL Herbicide can be applied 48 hours prior to planting to anytime after planting but before seedlings have emerged. F6285 4F CAL Herbicide applied after crop emergence may cause severe injury to the crop. F6285 4F CAL Herbicide can be applied alone or in combination with other labeled melon herbicides. F6285 4F CAL Herbicide may be followed by labeled postemergence melon herbicides for increased control of grass and broadleaf weeds. Always follow the most restrictive label when tank mixing. When using F6285 4F CAL Herbicide in no-till or minimum till cropping systems, tank mix with an appropriate burndown herbicide for improved control of existing weeds.

#### Weeds Controlled

#### When applied according to directions, F6285 4F CAL Herbicide will provide control of:

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

#### Precautions

These Crop Specific Use directions are based upon the interactive effects of F6285 4F 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 Application Instructions, F6285 4F 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 F6285 4F CAL Herbicide. Consult university or extension weed management specialists for additional information on specific local varieties or cultivars and any other pertinent information on F6285 4F CAL Herbicide under specific local conditions.

#### Restrictions

Do not apply more than 8.0 ounces (0.25 pound active) per acre of F6285 4F CAL Herbicide per application or per twelve-month period. The twelve-month period is considered to begin upon the initial F6285 4F CAL 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.

### STRAWBERRY

Table 22

F6285 4F CAL Herbicide Use Rate Table (Strawberry)				
Broadcast Rate	Fluid Ounces F6285 4F CAL Herbicide per acre			
	Soil Texture			
% Organic Matter	<u>Coarse</u> <u>Medium</u> <u>Fine</u>			
<1.5%	2.25 - 3.0	3.0 - 4.5.0	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.				

MEDIUM, and FINE categories.

Use higher rates for soils of pH less than 7.0 and lowest rates for pH greater than 7.0 within the rate range.

#### NEW STRAWBERRY PLANTINGS

#### Pre-Transplant

F6285 4F CAL herbicide can be applied prior to transplanting and before weed seedlings have emerged. Use a burndown herbicide labeled for use on strawberry beds if emerged weeds are present. For increased weed control, F6285 4F CAL herbicide may be applied in combination with or, followed by other herbicides labeled for use on strawberries.

For strawberries grown with plastic or organic mulches, apply F6285 4F CAL to the soil surface prior to installing the mulch. Condensation under plastic mulch will provide adequate moisture to activate the herbicide. DO NOT apply F6285 4F CAL herbicide over the top of plastic or organic mulch.

#### ESTABLISHED STRAWBERRY PLANTINGS

#### Dormancy

Apply to established plantings at dormancy. F6285 4F CAL applications to desirable foliage may cause severe crop injury. If emerged weeds are present at the time of application, tank mix F6285 4F CAL with another herbicide labeled for use in strawberries with post emergent activity. Do not apply within 56 days of harvest.

#### Row Middles (wheel rows)

Apply F6285 4F CAL in a band to row middles between planting beds using a directed spray or, hooded or shielded sprayers. Do not allow spray to contact emerged crops. Severe crop injury will occur if spray solutions of F6285 4F CAL contact desirable vegetation, stems, fruit, or blooms. Any spray contacting strawberry foliage, flowers, or fruit will cause severe crop damage. If emerged weeds are present, tank mix with F6285 4F CAL with another herbicide labeled for use in strawberries with post emergent activity. Do not apply within 3 days of harvest.

Minimize spray contact with the plastic bed cover to prevent crop plants from contacting treated plastic or washing of the herbicide into the plant hole. DO NOT apply directly to plastic mulch.

#### Weeds Controlled

F6285 4F CAL is a selective soil-applied herbicide for the control of susceptible broadleaf, grass and sedge weeds listed in the weed control tables. Adequate moisture of at least  $\frac{1}{2}$  inch is required within 14 days after application for optimal control. If adequate rainfall is not received in a timely fashion, irrigate with a minimum of  $\frac{1}{2}$  inch of water. When activating moisture is delayed, a reduced level of weed control may occur. These escaped weeds can be removed using a burndown herbicide.

Tank mix F6285 4F CAL with a burndown herbicide and use an appropriate adjuvant when weeds are present at the time of application. Refer to the tank mix partner's product label for the proper use rates by weed sizes. Use the most restrictive label limitations and precautions of the tank mix product(s).

Bindweed, field (seedling) suppression	Nightshade, Black
Cheeseweed (Common Mallow and Little Mallow)	Nightshade, Eastern Black
Groundsel, common	Pigweed, prostrate
Knotweed, common	Pigweed, redroot
Ladysthumb	Pigweed, smooth
Lambsquarters, common	Pineapple weed
Mayweed	Prostrate knotweed
Mallow, Common	Purslane, common
Mallow, Little	Sheperdspurse
Morningglory, ivyleaf	Waterhemp, common
Nettle, Burning	Waterhemp, tall

When applied according to directions, F6285 4F CAL Herbicide will provide control of:

#### ANNUAL AND PERENNIALSEDGE CONTROL INCLUDING NUTSEDGE

F6285 4F CAL may provide control or suppression of sedges whether applied preemergence or postemergence to the sedges. Postemergence applications to sedges allow F6285 4F CAL to be taken into the sedge through the foliage as well as soil uptake through the roots. Soil uptake is the major means of uptake by sedges. Good spray coverage is required for optimum control of sedges especially when applying postemergence to the sedges. Use a quality federally approved nonionic surfactant (NIC) at the rate of 0.25% v/v when applying postemergence.

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

When applied as directed, F6285 4F CAL will provide control or suppression of the following sedges.

F6285 4F CAL Herbicide will aid in the management of yellow and purple nutsedge populations by weakening existing nutsedge plants. The degree of suppression depends on the rate of F6285 4F CAL applied, moisture, soil conditions, the depth of nutsedge nutlets, weather, and the interval between F6285 4F CAL application and nutsedge emergence in the spring.

Soil uptake is the major means of uptake by sedges however, postemergence applications to sedges allow F6285 4F CAL to be taken into the sedge through the foliage as well as soil uptake through the roots. Good spray coverage is required for optimum control of sedges especially when applying postemergence to the sedges. Use a quality federally approved nonionic surfactant (NIC) at the rate of 0.25% v/v when applying postemerge. Best suppressive activity is attained when nutsedge plants are small with 6 or fewer leaves.

Optimum control of purple nutsedge may be obtained using split applications of F6285 4F CAL. Apply 4-6 fluid ounces per acre followed by a second application to actively growing purple nutsedge. Do not exceed the maximum rate of 12 fluid ounces (0.375 lb ai/A) per year. F6285 4F CAL symptoms on purple nutsedge will be observed as reduced nutsedge stands, necrosis, chlorosis, and/or stunting. Optimum control may not be observed until the second year after the original treatment.

#### Precautions

These Crop Specific Use directions are based upon the interactive effects of F6285 4F 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 Application Instructions, F6285 4F 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 F6285 4F CAL Herbicide. Consult university or extension weed management specialists for additional information on specific local varieties or cultivars and any other pertinent information on F6285 4F CAL Herbicide under specific local conditions.

Severe crop injury will occur if spray solutions of F6285 4F CAL contact desirable vegetation, stems, fruit, or blooms. Any spray contacting strawberry foliage, flowers, or fruit will cause severe crop damage.

#### Restrictions

Do not apply more than 12 ounces (0.375 pound active) per acre of F6285 4F CAL Herbicide per application or per twelve-month period for preplant, dormant, or postemergent uses combined. The twelve-month period is considered to begin upon the initial F6285 4F CAL application.

Do not apply directly on the crop after the crop emerges.

The minimum retreatment interval is 60 days.

Apply using ground equipment only; do not use airblast sprayer or apply by air.

## SUCCULENT PEAS

*Cajanus cajan* (includes pigeon pea); *Cicer* spp. (includes chickpea and garbanzo bean); *Lens culinaris* (lentil); *Pisum* spp. (includes dwarf pea, garden pea, green pea, English pea, field pea, and edible pod pea)

#### Table 23

	F6285 4F CAL Herbicio	le Use Rate Table		
	(Succulent	Peas)		
	Preemergence A	oplications		
Broadcast Rate	Fluid Our	ices F6285 4F CAL Herbicide p	er acre	
	Soil Texture			
% Organic Matter	Coarse Medium Fine			
<1.5	2.25 - 3.75	3.0 - 6.0	3.75 - 6.0	
1.5 – 3.0	3.0 - 4.5	3.75 - 6.0	4.5 - 6.0	
>3.0	3.75 - 6.0	4.5 - 6.0	5.25 - 6.0	
Refer to the previous information on	soil types under the COARSE, M	EDIUM, and FINE categories	-	
Use higher rates for soils of pH less	than 7.0 and lower rates for pH g	reater than 7.0 within the rate rar	nge.	

**Preemergence**F6285 4F CAL Herbicide may be applied to succulent peas as a preemergence treatment at 6.0 fluid ounces (0.1875 pounds active) per acre. Applications should be made with ground equipment in a minimum of 10 gallons of finished spray per acre.

#### Weeds Controlled

#### When applied according to directions, F6285 4F CAL Herbicide will provide control of:

Copperleaf, hophornbeam	Pigweed, redroot
Morningglory, entireleaf	Pigweed, smooth
Morningglory, ivyleaf	

#### Precautions

When applying F6285 4F 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 F6285 4F 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. F6285 4F CAL Herbicide use rates should be reduced in those areas. If applying F6285 4F CAL to course textured soils with less than 1.5% organic matter, wait a minimum of 7 days after application before planting. 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 F6285 4F 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 Application Instructions, F6285 4F 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 F6285 4F CAL Herbicide. Consult university or extension weed management specialists for additional information on specific local varieties or cultivars and any other pertinent information on F6285 4F CAL Herbicide under specific local conditions.

#### Restrictions

Do not apply more than 6 ounces (0.1875 pound active) per twelve-month period. The twelve-month period is considered to begin upon the initial F6285 4F CAL Herbicide application.

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

Do not incorporate.

# **OIL CROPS**

FLAX

Table 24					
F6285 4F CAL Herbicide Use Rate Table (Flax)					
Fall, Early Preplant and Preemergence Applications					
Broadcast Rate	Fluid Ounces F	6285 4F CAL Herb	icide per acre		
	Soil Texture				
% Organic	Coarse Medium Fine				
Matter					
<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 lowest rates for pH					
greater than 7.0 within the rate range.					

#### Fall Applications

F6285 4F CAL Herbicide may be applied in the fall as a preplant treatment to control or suppress weeds prior to planting flax the following spring. F6285 4F 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 allow weed escapes to occur. Do not apply to frozen soils or to existing snow cover to prevent F6285 4F CAL Herbicide runoff from rain or snow melt that may occur following application. If weeds are emerged at the time of F6285 4F CAL Herbicide application, use a labeled burndown herbicide at the full-labeled rate in combination with F6285 4F CAL Herbicide or a sequential application as needed. Select the appropriate rate from the Table above within the correct soil type and organic matter range. When applying F6285 4F 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)

F6285 4F CAL Herbicide may be applied preplant on the soil surface in the spring to control weeds in flax. F6285 4F 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. F6285 4F CAL Herbicide applied after crop emergence may cause severe injury to the crop. For preemerge applications greater than 3 weeks prior to planting, use the mid to high rate within the appropriate rate range for the soil and organic matter type listed in the use rate chart above. F6285 4F CAL Herbicide can be applied alone or in combination with other labeled flax herbicides. Always follow the most restrictive label when tank mixing. F6285 4F CAL Herbicide may be followed by labeled postemergence flax herbicides for increased control of grass and broadleaf weeds. If dry conditions persist following preemerge application, use a burndown herbicide at the full-labeled rate in combination with F6285 4F CAL Herbicide application is a burndown herbicide at the full-labeled rate in combination with F6285 4F CAL Herbicide or split application as needed. When using F6285 4F CAL Herbicide in no-till or minimum till cropping systems, tank mix with an appropriate burndown herbicide for improved control of existing weeds.

#### Preemergence

F6285 4F CAL Herbicide can be applied prior to planting to anytime after planting but before seedlings have emerged. F6285 4F CAL Herbicide applied after crop emergence may cause severe injury to the crop. F6285 4F CAL Herbicide can be applied alone or in combination with other labeled flax herbicides. F6285 4F CAL Herbicide may be followed by labeled postemergence flax herbicides for increased control of grass and broadleaf weeds. Always follow the most restrictive label when tank mixing. When using F6285 4F CAL Herbicide in no-till or minimum till cropping systems, tank mix with an appropriate burndown herbicide for improved control of existing weeds.

When applied according to direction	ons, F6285 4F CAL Herbicide will provide control of:	
Copperleaf, hophornbeam	Morningglory, tall	

Morninggiory, tail
Nightshade, Eastern black
Pigweed, redroot
Pigweed, smooth

#### Precautions

When applying F6285 4F CAL Herbicide to coarse textured soils, growers are to allow a minimum of 7-14 days from application to planting. Some adverse crop response may occur on coarse textured soils with low organic matter (less than 1.5%) and pH of 7.2 or higher, or on highly eroded soils, hilltops or in areas of calcareous outcroppings. F6285 4F CAL Herbicide use rates should be reduced to 3.0 oz/A in those areas or F6285 4F CAL Herbicide should not be used 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 F6285 4F 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 Application Instructions, F6285 4F 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 F6285 4F CAL Herbicide. Consult university or extension weed management specialists for additional information on specific local varieties or cultivars and any other pertinent information on F6285 4F CAL Herbicide under specific local conditions.

#### Restrictions

Do not apply more than 12 ounces (0.375 pound active) per acre of F6285 4F CAL Herbicide per application or per twelve-month period. The twelve-month period is considered to begin upon the initial F6285 4F CAL application.

Do not apply to frozen soils or existing snow cover to prevent F6285 4F 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.

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

## MINT

	F6285 4F CAL Us	e Rate Table (Mint)		
	For Dormant and Net	w Planting Applications		
Broadcast Rate	Fluid Ounces F6285 4F CAL per acre			
	Soil Texture			
% Organic Matter	Coarse Medium Fine			
<1.5%	4.5 - 6.0 6.0 - 8.0 8.0			
1.5 - 3.0 %	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 informati	on on soil types under the CC	ARSE, MEDIUM, and FINE cate	gories	

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**

Apply F6285 4F CAL 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 F6285 4F CAL 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 F6285 4F CAL in tank-mixtures with a registered burndown herbicide to control emerged weeds at the time of application. A federally approved surfactant is recommended with these tank mixtures to improve control of the emerged weeds.

F6285 4F CAL may also be applied in tank mixtures with other products registered for use in mint.

#### New Planting Applications

F6285 4F CAL 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 listed for established plantings for particular soil characteristics. Refer to F6285 4F CAL Use Rate Table (Table 25) 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.

When Applied according to directions,	F6285 4F CAL 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 Weeds Controlled section (Table 5) in this label.

#### Precautions

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

Apply 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 F6285 4F 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 Application Instructions, F6285 4F 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 F6285 4F CAL. Consult university or extension weed management specialists for additional information on specific local varieties or cultivars and any other pertinent information on F6285 4F CAL under specific local conditions.

#### Restrictions

Apply F6285 4F CAL 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 F6285 4F CAL application.

## **PERMANENT CROPS**

## **CITRUS FRUIT, TREE NUTS, GRAPES and BERRIES**

**Citrus Fruits (Crop Group 10):** Australian desert lime; Australian finger-lime; Australian round lime; Brown River finger lime; calamondin; citron; citrus hybrids; grapefruit; Japanese summer grapefruit; kumquat; lemon; lime; Mediterranean mandarin; mount white lime; New Guinea wild lime; orange, sour; orange, sweet; pummelo; Russell River lime; satsuma mandarin; sweet lime; tachibana orange; Tahiti lime; tangelo; tangerine (mandarin); tangor; trifoliate orange; uniq fruit; cultivars, varieties, and/or hybrids of these

Preharvest Interval: 3 days

Grapes: Wine, Raisin, Table and Juice, Amur river grape

#### Preharvest Interval: 3 days

Berries (Crop Group 13-07): aronia berry; bayberry; bearberry; bilberry; blackberry (including Andean blackberry, arctic blackberry, bingleberry, black satin berry, boysenberry, brombeere, California blackberry, Chesterberry, Cherokee blackberry, Cheyenne blackberry, common blackberry, coryberry, darrowberry, dewberry, Dirksen thornless berry, evergreen blackberry, Himalayaberry, hullberry, lavacaberry, loganberry, lowberry, Lucretiaberry, mammoth blackberry, marionberry, mora, mures deronce, nectarberry, Northern dewberry, orgeon evergreen berry, phenomenalberry, rangeberry, ravenberry, rossberry, Shawnee blackberry, Southern dewberry, tuffaloberry; zarzamora, and cultivars, varieties and/or hybrids of these); blueberry, highbush; currant, black; currant, red; elderberry; European barberry; gooseberry; honeysuckle, edible; huckleberry; jostaberry; Juneberry (Saskatoon berry); kiwifruit, fuzzy; kiwifruit, hardy; lingonberry; maypop; mountain pepper berries; mulberry; serviceberry; wild raspberry; cultivars, varieties, and/or hybrids of these

Preharvest interval: 3 days

Tree Nuts (Crop Group 14): Almond, Beech Nut, Brazil Nut, Butternut, Cashew, Chestnut, Chinquapin, Filbert (Hazelnut), Hickory Nut, Macadamia Nut (Bush Nut), Pecan, Pistachio and Walnut (Black and English),

Preharvest Interval: 3 days

#### APPLICATION INFORMATION

F6285 4F CAL should be applied as a uniform broadcast soil application to orchard and vineyard floors and to berry beds and furrows or as a uniform band application directed to the base of the trunk in trees and vines and to the base of the berry and berry beds to provide preemergence control of weeds listed in the tables below.

For best control, F6285 4F CAL should be applied when there are no weeds present or a postemergence herbicide is tank mixed to eliminate emerged weeds.

For broadcast applications, a single application of F6285 4F CAL should be made at 4 to12 fl oz per acre (0.125 to 0.375 lb ai/A). Do not apply more than 12 fluid ounces (0.375 lb ai) per acre per twelve-month period. The twelve-month period is considered to begin when the initial application of F6285 4F CAL is applied.

For improved weed management, F6285 4F CAL can be applied in a tank mixture with other preemergence and postemergence burndown herbicides. Refer to the tank mix partner's labels for additional restrictions, including minimum spray volumes and crops in which they are labeled. Burndown herbicides may include, but are not limited to, Aim, Shark, Rage D-Tech, glyphosate, paraquat, Rely, and 2,4-D. Do not tank mix with Chateau® herbicides (flumioxazin) or with other products containing sulfentrazone.

When applied as a banded treatment (50% band or less), refer to formula in chart below for rate and volume. F6285 4F CAL may be applied twice per year. Do not apply more than 12 fl oz product per acre (0.375 lb ai/A) on a broadcast application basis per year. Allow a minimum of 60 days between applications, unless otherwise specified on the label or separate published FMC recommendations.

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

Band Width Feet X Broadcast = Band Rate

Row Width Feet		Rate Per Acre		
Band Width Feet	х	Broadcast Volume Per Acre	=	Band Volume

A minimum of 10 gallons of spray solution per acre should be used to ensure uniform spray coverage. Nozzle selection should meet manufacturer's spray volume and pressure recommendations for preemergence and postemergence herbicide applications. The spray solution should have a pH between 5.0 and 9.0.

F6285 4F CAL should only be applied to crops that have been established for one full growing season and are in good health and vigor. Avoid contact of the spray solution on the green bark of trunks of young vines and trees by wrapping the trunk with a nonporous wrap, grow tubes, or wax containers which will keep the spray solution from coming in direct contact with the green tissue. Avoid direct or indirect spray contact with crop foliage and fruit.

Use ground equipment only. Do not apply using an airblast sprayer or by air. Do not apply using a mechanically pressurized handgun.

Best results are obtained when the soil is moist at the time of application and the application will be followed by at least ½ inch of rainfall or sprinkler irrigation within two weeks after application. Applications should be timed to take advantage of normal rainfall patterns and cool temperatures, especially where drip or micro sprinkler irrigation is used which may not uniformly incorporate the herbicide.

## WEED CONTROL INFORMATION

F6285 4F CAL is a selective soil-applied herbicide for the control of susceptible broadleaf, grass and sedge weeds found in the tables below. Adequate moisture of at least  $\frac{1}{2}$  inch is required within 14 days after application for optimal control. If adequate rainfall is not received in a timely fashion, irrigate with a minimum of  $\frac{1}{2}$  inch of water. When activating moisture is delayed, a reduced level of weed control may occur. These escaped weeds can be removed using a burndown herbicide.

Tank mix F6285 4F CAL with a burndown herbicide and use an appropriate adjuvant when weeds are present at the time of application. Refer to the tank mix partner's product label for the proper use rates by weed sizes. Use the most restrictive label limitations and precautions of the tank mix product(s).

Residual weed control may be reduced when F6285 4F CAL is applied where heavy crop trash such as leaves and branches and /or weed residues exists. It is best to rake or blow off the leaves and trash when they fall and prior to the F6285 4F CAL application.

Do not apply after petal fall unless using a hooded or shielded sprayer to ensure that the spray solution will not come in contact with the crop or foliage.

Permanent Grop weed List	
Common 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
Barnyardgrass, common	Echinochloa crus-galli
Bedstraw, catchweed	Galium aparine
Bindweed, field	Convolvulus arvensis
Bluegrass, annual	Poa annua
Bromegrass species	Bromus spp.
Burclover, California	Medicago polymorpha
Carpetweed	Mollugo verticillata
Cheatgrass	Bromus tectorum
Cheeseweed species	Malva spp.
Chickweed, common	Stellaria media
Clover species	Trifolium spp.
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

#### Permanent Crop Weed List

Cyperus, hedgehog	Cyperus compressus
Daisy, American	Eclipta alba
Devilsclaw	Proboscidea louisiana
Dock, curly	Rumex crispus
Eclipta	Eclipta prostrata
Eveningprimrose, cutleaf	Oenothera laciniata
Fescue, Red	Fetuca rubra
Fiddleneck speicies	Amsinckia spp.
Filaree, broadleaf	Eroduim botrys
Filaree, redstem	Erodium cicutarium
Filaree, whitestem	Erodium moschatum
Fleabane, hairy	Conyza bonariensis
Flixweed	Descurainia sophia
Foxtail, bristly	Setari verticillata
Foxtail, giant	Setaria faberi
Foxtail, green	Setaria viridis
Foxtail, yellow	Setaria glauca
Galinsoga, hairy	Galinsoga ciliata
Goosegrass	Eleusine indica
Goosefoot, nettleleaf	Chenopodium murale
Groundcherry, clammy (seedling)	Physalis heterophylla
Groundcherry, cutleaf	Physalis angulata
Groundsel, common	Senecio vulgaris
Henbit	Lamium amplexicaule
Horseweed (Marestail)	Conyza canadensis
Ryegrass, Italian	Lolium multiflorum
Jimsonweed	Datura stramonium
Johnsongrass	Sorghum halpense
Junglerice	Enchinochloa colona
Knotweed, common	Polygonum arenastrum
Kochia (ALS and Triazine Resistant)	Kochia scoparia
Ladysthumb	Polygonum persicaria
Lambsquarters, common	Chenopodium album
Lettuce, miners	Montia perfoliata
Lovegrass species	Eragrostis spp.
Mallow, common	Malva neglecta wall r.
Mallow, little	Malva parviflora
Mayweed, Chamomile	Anthemis cotula I.
Milkweed, honeyvine	Ampelamus albidus
Morningglory, entireleaf	Ipomoea hederacea integriuscula
Morningglory, ivyleaf	Ipomoea hederacea hederacea
Morningglory, palmleaf	Ipomoea wrightii
Morningglory, purple	Ipomoea turbinata
Morningglory, red	i Ipomoea, coccinea L.
Morningglory, scarlet	Ipomoea coccinea
Morningglory, smallflower	Jacquemontia tamnifolia
Morningglory, tall	Ipomoea, purpurea
Mullein, turkey	Eremocarpus setigerus
Mustard, Species	Brassica spp.
Mustard, tumble	Sisybrium altissimum
Nettle, burning	Urtica urens
Nightshade, black	Solanum nigrum
Nightshade, Eastern black	Solanum ptycanthum
	Cyperus rotundus
Nutsedae, purple	
Nutsedge, purple	
Nutsedge, yellow	Cyperus esculentus
Nutsedge, yellow Orchardgrass	Cyperus esculentus Dactylis glomerata
Nutsedge, yellow Orchardgrass Panicum, fall	Cyperus esculentus Dactylis glomerata Panicum dichotomiflorum
Nutsedge, yellow Orchardgrass Panicum, fall Pigweed, prostrate	Cyperus esculentus Dactylis glomerata Panicum dichotomiflorum Amaranthus blitoides
Nutsedge, yellow Orchardgrass Panicum, fall Pigweed, prostrate Pigweed, redroot	Cyperus esculentus Dactylis glomerata Panicum dichotomiflorum Amaranthus blitoides Amaranthus retroflexus
Nutsedge, yellow Orchardgrass Panicum, fall Pigweed, prostrate Pigweed, redroot Pigweed, smooth	Cyperus esculentus Dactylis glomerata Panicum dichotomiflorum Amaranthus blitoides Amaranthus retroflexus Amaranthus hybridus
Nutsedge, yellow Orchardgrass Panicum, fall Pigweed, prostrate Pigweed, redroot Pigweed, smooth Pigweed, Tumble	Cyperus esculentus Dactylis glomerata Panicum dichotomiflorum Amaranthus blitoides Amaranthus retroflexus Amaranthus hybridus Amaranthus albus
Nutsedge, yellow         Orchardgrass         Panicum, fall         Pigweed, prostrate         Pigweed, redroot         Pigweed, smooth         Pigweed, Tumble         Pineapple-weed	Cyperus esculentus Dactylis glomerata Panicum dichotomiflorum Amaranthus blitoides Amaranthus retroflexus Amaranthus hybridus Amaranthus albus Chamomilla suaveolens
Nutsedge, yellow         Orchardgrass         Panicum, fall         Pigweed, prostrate         Pigweed, redroot         Pigweed, smooth         Pigweed, Tumble         Pineapple-weed         Plantain, blackseed	Cyperus esculentus Dactylis glomerata Panicum dichotomiflorum Amaranthus blitoides Amaranthus retroflexus Amaranthus hybridus Amaranthus albus Chamomilla suaveolens Plantago rugelii decne
Nutsedge, yellow         Orchardgrass         Panicum, fall         Pigweed, prostrate         Pigweed, redroot         Pigweed, smooth         Pigweed, Tumble         Pineapple-weed         Plantain, blackseed         Plantain, narrow-leaved	Cyperus esculentus Dactylis glomerata Panicum dichotomiflorum Amaranthus blitoides Amaranthus retroflexus Amaranthus hybridus Amaranthus albus Chamomilla suaveolens Plantago rugelii decne Plantago lanceolata
Nutsedge, yellow         Orchardgrass         Panicum, fall         Pigweed, prostrate         Pigweed, redroot         Pigweed, smooth         Pigweed, Tumble         Pineapple-weed         Plantain, blackseed	Cyperus esculentus Dactylis glomerata Panicum dichotomiflorum Amaranthus blitoides Amaranthus retroflexus Amaranthus hybridus Amaranthus albus Chamomilla suaveolens Plantago rugelii decne

Poinsettia, wild	Euphorbia heterophylla
Puncturevine	Tribulus terrestris
Purslane, common	Portulaca oleracea
Redmaids	Calandrinia ciliata
Redweed	Melochia corchorifolia
Radish, Wild	Raphanus raphanistrum
Rocket, London	Sisymbrium irio
Sandbur	Cenchrus spinifer
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
Sowthistle species	Sonchus spp.
Srangletop, red	Leptochloa filiformis
Spurge, spotted	Chamaesyce maculate
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
Willowleaf, panicle-leaf	Epilobium brachycarpum
Witchgrass	Panicum capillare

#### ANNUAL AND PERENNIALSEDGE CONTROL INCLUDING NUTSEDGE

F6285 4F CAL applied at 12 fluid ounces per acre (0.375 lb ai/A) may provide control or suppression of sedges whether applied preemergence or postemergence to the sedges. Postemergence applications to sedges allow F6285 4F CAL to be taken into the sedge through the foliage as well as soil uptake through the roots. Soil uptake is the major means of uptake by sedges. Good spray coverage is required for optimum control of sedges especially when applying postemergence to the sedges. Use a quality federally approved nonionic surfactant (NIC) at the rate of 0.25% v/v when applying postemergence.

When applied as directed, F6285 4F CAL will provide control or suppression of the following sedges.

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

Optimum control of purple nutsedge may be obtained using split applications of F6285 4F CAL. Apply 4-6 fluid ounces per acre followed by a second application to actively growing purple nutsedge. Do not exceed the maximum rate of 12 fluid ounces (0.375 lb ai/A) per year. F6285 4F CAL symptoms on purple nutsedge will be observed as reduced nutsedge stands, necrosis, chlorosis, and/or stunting. Optimum control may not be observed until the second year after the original treatment.

#### REPLANTING IN NEW OR ESTABLISHED ORCHARDS AND VINEYARDS

Delay replanting at least 30 days after F6285 4F CAL applications when replacing trees and vines in newly planted and established orchards and vineyards. Use untreated soil when replanting trees and vines.

#### Precautions

These Crop Specific Use directions are based upon the interactive effects of F6285 4F 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 Product Application Instructions, General F6285 4F 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 F6285 4F CAL. Consult university or extension weed management specialists for additional
information on specific local varieties or cultivars and any other pertinent information on F6285 4F CAL under specific local

conditions. Do not tank mix this product with other products containing sulfentrazone or other WSSA Group 14 preemergent herbicides as crop injury may occur.

#### Restrictions

- Use ground equipment only. Do not apply F6285 4F CAL using airblast sprayers or by air. Do not apply using a mechanically pressurized handgun.
- Do not apply more than 12 fluid oz product per acre (0.375 lb ai/A) per year.
- Apply to crops that have been growing for at least one full year and are in good condition.
- Avoid direct or indirect spray contact to foliage and green bark (wrap trunk with non-porous wrap, grow tubes, or wax containers to keep spray solution off of green tissue).
- Do not apply to powdery soils or soils where wind may displace the soil, unless irrigation can be applied immediately after application.
- Follow the most restrictive label of tank mix partners including all references to potential carryover and crop injury warnings and restrictions.
- Pre-harvest Interval (PHI): 3 days
- If two banded treatments are made in a growing season, allow a minimum of 60 days between applications; however, do not exceed the yearly maximum use rate.

# TURNIPS

Apply 0.25 lbs active ingredient (8 fluid ounces) per acre of sulfentrazone. Make one post emergent application at 46-60 days before harvest. Apply in 10-40 gallons of water per acre.

#### Weeds Controlled

When Applied according to directions, F6285 4F 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.

#### Restrictions

Do not apply more than 8.0 fluid ounces (0.25 pound active) per acre per 12-month period.

Do not make more than one F6285 4F CAL Herbicide application per acre per 12-month period. The twelve-month period is considered to begin upon the initial F6285 4F CAL Herbicide application.

Do not apply using a mechanically pressurized handgun.

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

# RHUBARB

Apply 0.25 lbs active ingredient (8 fluid ounces) per acre of sulfentrazone. Make one post emergent broadcast application (just prior to rhubarb plants breaking dormancy) at 80 (+/-5) days before harvest. Use a minimum of 10 gallons of water per acre.

#### Weeds Controlled

When Applied according to directions, F6285 4F 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.

#### Restrictions

Do not apply more than 8.0 fluid ounces (0.25 pound active) per acre per 12-month period.

Do not make more than one F6285 4F CAL Herbicide application per acre per 12-month period. The twelve-month period is considered to begin upon the initial F6285 4F CAL Herbicide application.

Do not apply using a mechanically pressurized handgun.

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

# **Turf Grasses:**

# (Including Residential and Institutional Lawns, Athletic Fields, Golf Course Fairways and Roughs and Commercial **Sod Farms**)

F6285 4F CAL Herbicide is a selective preemergence and post emergence herbicide which controls annual grasses and broadleaf weeds in established turf areas including 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, F6285 4F 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 F6285 4F CAL Herbicide.F6285 4F CAL 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. Turf injury could result from application of this product on turf turf at is not well established or has been weakened by stresses such as unfavorable weather conditions, diseases, chemical, recent harvesting or mechanical influences.

F6285 4F CAL Herbicide is formulated as a flowable (suspension concentrate) containing 4 lbs of active ingredient per gallon. The mode of action of F6285 4F CAL Herbicide involves uptake by both weed roots and shoots. Preemergence application of F6285 4F 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 F6285 4F 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.

#### Turf Grass Tolerance

When applied as directed, the following established turf grasses are tolerant to F6285 4F CAL herbicide at the listed use rates.

**Table 25 Tolerant grasses** 

Grass Type	Maximum U	se Rate***
	For Single Appli	cation
Cool Season Grasses **	Fluid Ounces F6285 4F CAL 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 F6285 4F CAL 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 F6285 4F CAL. Consult university or extension weed management specialists for additional information on specific local varieties or cultivars and any other pertinent information on F6285 4F CAL under specific local conditions.

\*\*\*Do not apply more than 12 fluid ounces (0.375 pound active) per acre of F6285 4F CAL Herbicide per twelve-month period. The twelve-month period is considered to begin upon the initial F6285 4F CAL Herbicide application.

#### Applications to Reseeded, Overseeded or Sprigged Areas

Reseeding, overseeding or sprigging may be done following F6285 4F CAL applications to turfgrasses. If reseeding, overseeding or sprigging is done within 1 month following a F6285 4F CAL 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 F6285 4F CAL 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. Do not apply with surfactants.

#### Postemergence Control of Sedges

F6285 4F CAL 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 F6285 4F CAL use rate from Table 25.

Common Name	Scientific Name
Kyllinga, green	Kyllinga brevifolia
Kyllinga, 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 listed 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**

F6285 4F CAL will control or suppress specific annual grasses 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. F6285 4F CAL works best if applied when the annual grasses are small (pre tiller stage) and actively growing.

Common Name	Scientific Name
Goosegrass	Eleusine indica

#### Postemergence Control of Broadleaf Weeds

F6285 4F CAL herbicide will control or suppress the weeds listed in the broadleaf chart below when applied alone shortly after weeds have emerged. F6285 4F CAL 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 F6285 4F CAL use rate from Table 25. For optimum results, F6285 4F CAL applications should be made shortly after weeds have emerged.

F6285 4F CAL 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 species tolerance, use rates and application requirements. Follow all label restrictions, use directions and precautionary statements before use.

When applied as directed, F6285 4F CAL will provide control or s		
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	

When applied as directed, F6285 4F CAL will provide control or suppression of the following broadleaf weeds.

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	Omithogalum umbellatum
Velvetleaf	Abutilon theophrasti
Violet, wild	Viola pratincola
Woodsorrel, creeping	Oxalis corniculata
Woodsorrel, yellow	Oxalis stricta

#### Restrictions

Do not apply more than 12 fluid ounces (0.375 pound active) per acre of F6285 4F CAL Herbicide per twelve-month period. The twelve-month period is considered to begin upon the initial F6285 4F CAL Herbicide application.

Sod production areas must be established three (3) months prior to the initial treatment of F6285 4F CAL.

Do not apply F6285 4F CAL to turf grasses not listed on this label.

Do not apply with surfactants.

Do not graze or feed forage harvested from F6285 4F CAL treated areas.

Do not apply to landscape ornamental plants or ornamental beds.

Do not apply to golf course putting greens or tees.

Do not harvest sod within three (3) months of F6285 4F CAL application.

# **Non-CROP USES**

For Use in Railroad, Highway, Roadside, Pipeline and Utility Rights-of-Way, Industrial Areas, Fence Rows, and Other listed Non-crop Sites.

## **APPLICATION INSTRUCTIONS**

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. Avoid spray drift to non-target areas.

#### Railroad Rights-of-Way

F6285 4F 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

F6285 4F 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

F6285 4F 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, and along fence rows, where complete vegetation control is needed.

#### Method and Rate of Application

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 F6285 4F 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 F6285 4F 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 F6285 4F 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<sup>\*\*</sup> 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	lpomoea 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

#### Restrictions

Do not apply more than 12 fluid ounces (0.375 pound active) per acre of F6285 4F CAL Herbicide per twelve-month period. The twelve-month period is considered to begin upon the initial F6285 4F CAL Herbicide application.

Do not apply by air with the exception of railroad rights of way, which can be made by helicopter

Do not graze or feed forage harvested from F6285 4F CAL treated areas.

Do not apply to landscape ornamental plants or ornamental beds.

# LABEL TRACKING INFORMATION

Label Code: 122315

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# Supplemental Labeling

# F6285 4F CAL Herbicide

EPA Reg. No.: 279-3370 Expiration Date: 1/5/2019

## **DIRECTIONS FOR USE**

#### IT IS A VIOLATION OF FEDERAL LAW TO USE THIS PRODUCT IN A MANNER INCONSISTENT WITH ITS LABELING. ALL APPLICABLE DIRECTIONS, RESTRICTIONS AND PRECAUTIONS ON THE EPA REGISTERED LABEL ARE TO BE FOLLOWED.

This supplemental labeling must be in the possession of the user at the time of pesticide application. Read the label affixed to the container for F6285 4F CAL Herbicide before applying. Carefully follow all precautionary statements and application use directions.

F6285 4F CAL Herbicide Use Rate Table (Strawberry)				
Broadcast Rate	Fluid Ounces F6285 4F CAL Herbicide per acre			
	Soil Texture			
% Organic Matter	<u>Coarse</u>	<u>Medium</u>	<u>Fine</u>	
<1.5%	2.25 – 3.0	3.0 - 4.5.0	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 lowest rates for pH greater than 7.0 within the rate range.				

## STRAWBERRY

### NEW STRAWBERRY PLANTINGS

#### **Pre-Transplant**

F6285 4F CAL herbicide can be applied prior to transplanting and before weed seedlings have emerged. Use a burndown herbicide labeled for use on strawberry beds if emerged weeds are present. For increased weed control, F6285 4F CAL herbicide may be applied in combination with or, followed by other herbicides labeled for use on strawberries.

For strawberries grown with plastic or organic mulches, apply F6285 4F CAL to the soil surface prior to installing the mulch. Condensation under plastic mulch will provide adequate moisture to activate the herbicide. DO NOT apply F6285 4F CAL herbicide over the top of plastic or organic mulch.

#### ESTABLISHED STRAWBERRY PLANTINGS

#### Dormancy

Apply to established plantings at dormancy. F6285 4F CAL applications to desirable foliage may cause severe crop injury. If emerged weeds are present at the time of application, tank mix F6285 4F CAL with another herbicide labeled for use in strawberries with post emergent activity. Do not apply within 56 days of harvest.

#### Row Middles (wheel rows)

Apply F6285 4F CAL in a band to row middles between planting beds using a directed spray or, hooded or shielded sprayers. Do not allow spray to contact emerged crops. Severe crop injury will occur if spray solutions of F6285 4F CAL contact desirable vegetation, stems, fruit, or blooms. Any spray contacting strawberry foliage, flowers, or fruit will cause severe crop damage. If emerged weeds are present, tank mix with F6285 4F CAL with another herbicide labeled for use in strawberries with post emergent activity. Do not apply within 3 days of harvest.

Minimize spray contact with the plastic bed cover to prevent crop plants from contacting treated plastic or washing of the herbicide into the plant hole. DO NOT apply directly to plastic mulch.

#### Weeds Controlled

Under the Federal Insecticide, Fungicide and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No. 279-3370

# **ACCEPTED** 01/13/2016

F6285 4F CAL is a selective soil-applied herbicide for the control of susceptible broadleaf, grass and sedge weeds listed in the weed control tables. Adequate moisture of at least  $\frac{1}{2}$  inch is required within 14 days after application for optimal control. If adequate rainfall is not received in a timely fashion, irrigate with a minimum of  $\frac{1}{2}$  inch of water. When activating moisture is delayed, a reduced level of weed control may occur. These escaped weeds can be removed using a burndown herbicide.

Tank mix F6285 4F CAL with a burndown herbicide and use an appropriate adjuvant when weeds are present at the time of application. Refer to the tank mix partner's product label for the proper use rates by weed sizes. Use the most restrictive label limitations and precautions of the tank mix product(s).

Bindweed, field (seedling suppression	) Nightshade, Black	
Cheeseweed (Common Mallow	v Nightshade, Eastern Black	
and Little Mallow)		
Groundsel, common	Pigweed, prostrate	
Knotweed, common	Pigweed, redroot	
Ladysthumb	Pigweed, smooth	
Lambsquarters, common	Pineapple weed	
Mayweed	Prostrate knotweed	
Mallow, Common	Purslane, common	
Mallow, Little	Sheperdspurse	
Morningglory, ivyleaf	Waterhemp, common	
Nettle, Burning	Waterhemp, tall	

#### When applied according to directions, F6285 4F CAL Herbicide will provide control of:

#### ANNUAL AND PERENNIALSEDGE CONTROL INCLUDING NUTSEDGE

F6285 4F CAL may provide control or suppression of sedges whether applied preemergence or postemergence to the sedges. Postemergence applications to sedges allow F6285 4F CAL to be taken into the sedge through the foliage as well as soil uptake through the roots. Soil uptake is the major means of uptake by sedges. Good spray coverage is required for optimum control of sedges especially when applying postemergence to the sedges. Use a quality federally approved nonionic surfactant (NIC) at the rate of 0.25% v/v when applying postemergence.

When applied as directed, F6285 4F CAL will provide control or suppression of the following sedges.

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

F6285 4F CAL Herbicide will aid in the management of yellow and purple nutsedge populations by weakening existing nutsedge plants. The degree of suppression depends on the rate of F6285 4F CAL applied, moisture, soil conditions, the depth of nutsedge nutlets, weather, and the interval between F6285 4F CAL application and nutsedge emergence in the spring.

Soil uptake is the major means of uptake by sedges however, postemergence applications to sedges allow F6285 4F CAL to be taken into the sedge through the foliage as well as soil uptake through the roots. Good spray coverage is required for optimum control of sedges especially when applying postemergence to the sedges. Use a quality federally approved nonionic surfactant (NIC) at the rate of 0.25% v/v when applying postemerge. Best suppressive activity is attained when nutsedge plants are small with 6 or fewer leaves.

Optimum control of purple nutsedge may be obtained using split applications of F6285 4F CAL. Apply 4-6 fluid ounces per acre followed by a second application to actively growing purple nutsedge. Do not exceed the maximum rate of 12 fluid ounces (0.375 lb ai/A) per year. F6285 4F CAL symptoms on purple nutsedge will be observed as reduced nutsedge stands, necrosis, chlorosis, and/or stunting. Optimum control may not be observed until the second year after the original treatment.

#### Precautions

These Crop Specific Use directions are based upon the interactive effects of F6285 4F 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 Application Instructions, F6285 4F 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 F6285 4F CAL Herbicide. Consult university or extension weed management specialists for additional information on specific local varieties or cultivars and any other pertinent information on F6285 4F CAL Herbicide under specific local conditions.

Severe crop injury will occur if spray solutions of F6285 4F CAL contact desirable vegetation, stems, fruit, or blooms. Any spray contacting strawberry foliage, flowers, or fruit will cause severe crop damage.

#### Restrictions

Do not apply more than 12 ounces (0.375 pound active) per acre of F6285 4F CAL Herbicide per application or per twelve-month period for preplant, dormant, or postemergent uses combined. The twelve-month period is considered to begin upon the initial F6285 4F CAL application.

The minimum retreatment interval is 60 days.

Do not apply directly on the crop after the crop emerges.

Apply using ground equipment only; do not use airblast sprayer or apply by air.

**FMC Corporation** Agricultural Products Group 1735 Market Street Philadelphia, Pennsylvania 19103

Label code: 120815

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