



U.S. ENVIRONMENTAL PROTECTION AGENCY

Office of Pesticide Programs
Registration Division (7505P)
Ariel Rios Building
1200 Pennsylvania Ave., NW
Washington, D.C. 20460

EPA Reg. Number:
279-3359

Date of Issuance:
AUG 13 2009

NOTICE OF PESTICIDE:

- x Registration
Reregistration
(under FIFRA, as amended)

Term of Issuance: Conditional

Name of Pesticide Product:
F7488-1 Herbicide

Name and Address of Registrant (include ZIP Code):

FMC Corporation
1735 Market Street
Philadelphia, PA 19103

Note: Changes in labeling differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Registration Division prior to use of the label in commerce. In any correspondence on this product always refer to the above EPA registration number.

On the basis of information furnished by the registrant, the above named pesticide is hereby registered/reregistered under the Federal Insecticide, Fungicide and Rodenticide Act. Registration is in no way to be construed as an endorsement or recommendation of this product by the Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.

This product is conditionally registered in accordance with FIFRA provided that you:

- 1. Submit and/or cite all data required for registration review/reregistration of your product when the Agency requires all registrants of similar products to submit data.
2. Submit one-year Storage Stability (Guideline 830.6317) and Corrosion Characteristics (Guideline 830.6320) data within one-year from the date of this letter.
3. Make the following label changes:
a. Change the EPA Reg. No. to "279-3359".
b. Remove the text "For Use Only by Individuals/Firms Certified And/or Licensed as Pesticide Applicators", or revise by adding the word "Intended" directly in front of the text, as the statement is unenforceable.
c. Correct the spelling in the ingredient footnote for "pendimethalin".
d. Under 4.2, revise the sentence to read "If no such instructions for washables exist, use detergent and hot water."

Continued on page 2

Signature of Approving Official:

Handwritten signature of Jim Tompkins

Jim Tompkins
Product Manager 25
Herbicide Branch
Registration Division (7505P)

Date:

AUG 13 2009

- e. The Note to Physician section is not required for this product and may be removed. The current text does not contain pertinent information and must either be removed or revised. The following are some suggested types of information that could be included, if applicable (Technical information on symptomatology; Use of supportive treatments to maintain life functions; Medicine that will counteract the specific physiological effects of the pesticide; Company telephone number to specific medical personnel who can provide specialized medical advice).
- f. Application directions with headings containing the word "general" must be revised, as the term renders all information within it to be advisory and are thus unenforceable.
 - i. Revise the heading from "General Information (8.0)" to "Product Information (8.0)".
 - ii. Revise the heading from "General Application Instructions (9.0)" to "Application Instructions (9.0)".
 - iii. Remove the word "General" in the phrases "General Application Instructions" and "General F7488-1 Product Use Rates" throughout the labeling.
- g. In Table 2, revise the maximum allowable rate (in fl. oz.) for **Soybeans** from "58" to "45"; **Sunflowers** from "69" to "58"; and **Tobacco** from "58" to "40". Remove the row for "Lima Beans", since it is included under dry beans.
- h. Under 13.0, remove the redundant footnote "For all other crops not listed, the rotational interval is a minimum of 20 months with a representative bioassay to determine crop safety before planting."
- i. In Table 3, revise the crop rotational interval (in months) for **Field Corn** from "Anytime" to "10", or provide supporting data and rationale for the change.
- j. Under **Corn**, add the restriction "Do not apply to frozen soils or existing snow cover to prevent F7488-1 runoff from rain or snowmelt that may occur following application."
- k. Make the following changes to the **Peanuts** section:
 - i. Add the text "For Use Only in AL, GA, MS, NC, SC, and VA." directly below the heading "PEANUTS (22.0)".
 - ii. Under Preplant Incorporated, change the text to read "Apply F7488-1 up to 14 days prior to planting and incorporate."
 - iii. Under Preemergence, change the first sentence to read "Apply F7488-1 at planting or **within 12 hours** after planting." Also, add the text "Apply preemergence to peanuts grown under overhead irrigation."
 - iv. In Table 5, remove the state "Florida" under the heavy weed infestation footnote, since sulfentrazone is not approved for that state.
 - v. Revise the last restriction to read "Do not apply < 3/4" irrigation prior to complete emergence."
- l. Make the following changes to the **Potatoes** section:
 - i. In Table 6, revise the rates for Coarse Soil so as not to exceed "29 fl. oz."
 - ii. In Table 6, revise the rates for Medium Soil with <1.5%OM and 1.5-3.0%OM so as not to exceed "38 fl. oz."

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- m. Make the following changes to the **Soybeans** section:
 - i. In Table 7, revise the rates for Coarse Soil so as not to exceed "29 fl. oz."
 - ii. In Table 7, revise the rates for Medium Soil so as not to exceed "38 fl. oz."
 - iii. In Table 7, revise the rates for Fine Soil so as not to exceed "45 fl. oz."
 - iv. Under 21.1, remove the word "recommended" from the phrase "using rates recommended"
 - v. Under 21.2, revise the phrase from "3 days after planting" to "2 days after planting." in both instances.
 - vi. Revise the first restriction to read "Do not apply more than 45 fl. oz. per acre of F7488-1 per twelve-month period which is considered to begin upon the initial F7488-1 application."
 - vii. Add the restriction "Do not make more than one application per crop season."
 - viii. Add the restriction "Do not use in California."
 - ix. Add the restriction "Do not apply within 85 days of harvest."

- n. Make the following changes to the **Tobacco** section:
 - i. In Table 10, remove the application "Preemergence", since only preplant incorporated applications are allowed.
 - ii. In Table 10, revise the phrase from "Broadcast Rate" to "Application Rate", since broadcast applications are prohibited.
 - iii. Revise the sentence to read "Apply F7488-1 preplant incorporated (to a depth no greater than 2 inches) with ground sprayer from 14 days up to 12 hours prior to transplanting tobacco in a minimum of 10 gallons of water per acre."
 - iv. Under 24.1, remove the phrase "surface applied or" from the first paragraph.
 - v. Under 24.1, remove the second and third paragraphs, since only preplant incorporated applications are allowed.
 - vi. Under 24.2, remove the first paragraph since only preplant incorporated applications are allowed.
 - vii. Revise the restriction to read "Do not apply more than 40 fl oz per acre of F7488-1 per twelve-month period which is considered to begin upon the initial F7488-1 application."
 - viii. Add the restriction "Do not apply as a broadcast spray as contact may cause malformed tobacco leaves."

- o. Make the following changes to the **Dry Shelled Beans and Peas** section:
 - i. In Tables 11 & 12, revise the applications to "Fall Preplant and Spring Preplant Incorporated Applications".
 - ii. In Tables 11 & 12, revise the rates for Coarse Soil so as not to exceed "28 fl. oz."
 - iii. In Tables 11 & 12, revise the rates for Medium Soil so as not to exceed "38 fl. oz"
 - iv. Under 25.1, remove the states "CO, NE, KS" since they are prohibited for pendimethalin fall applications.
 - v. Remove the section 25.2, since spring early preplant and preemergence applications are not allowed for pendimethalin on dry beans and peas.
 - vi. Under 25.3, revise the first sentence to read "Apply F7488-1 as a preplant incorporated treatment in the spring up to 60 days prior to planting in reduced and conventional tillage dry beans and peas."

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- vii. Under 25.3, revise the fourth sentence to read "Use the appropriate rate from Table **11 or 12** above for the soil texture, organic matter, and pH level."
- viii. Remove the restriction "Refer to the Crop liability disclaimer on page 5 before using F7488-1."
- ix. Add the restriction "Do not make more than one application per crop season."
- x. Add the restriction "Do not use in California."

The basic Confidential Statement of Formula (CSF) dated November 7, 2008 is acceptable.

A stamped copy of the label is enclosed for your records. Submit one (1) copy of the revised final printed label before you release the product for shipment. Products shipped after twelve (12) months from the date of this notice or the next printing of the label, whichever occurs first, must bear the new revised label. If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA §6(e). Your release for shipment of the product constitutes acceptance of these conditions.

Enclosure

5/23

F7488-1 Herbicide

ACCEPTED
with COMMENTS
in EPA Letter Dated

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

AUG 13 2009

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

| | |
|---|-------------------|
| EPA Reg. No. 279- 6610 ³³⁵⁹ | EPA Est. 279- |
| Active Ingredient: | By Wt. (1) |
| Sulfentrazone..... | 3.5% |
| Pendimethalin..... | 31.5% |
| Other Ingredients: | <u>65.0%</u> |
| | 100.0% |

279-3359

Contains 3.5 pounds of active ingredient per gallon consisting 0.35 lb a.i. of sulfentrazone and 3.15 lb a.i. of pendimethalin.

KEEP OUT OF REACH OF CHILDREN

CAUTION

FIRST AID (2)

| |
|--|
| <p>If in Eyes Hold eye open and rinse slowly and gently with water for 15- 20 minutes. Remove contact lenses, if present, after the first 5 minutes. Then continue rinsing eye. Call a poison control center or doctor for treatment advice.</p> <p>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.</p> <p>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.</p> <p>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.</p> |
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HOTLINE NUMBER (3)

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

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

See other sections for precautionary information.

Group 14 Herbicide

From 

ATTENTION

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

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

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

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

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PRECAUTIONARY STATEMENTS (4.0)

Hazards to Humans and Domestic Animals (4.1)

Caution

Causes moderate eye irritation. Avoid breathing vapor or spray mist. Avoid contact with skin, eyes or clothing.

Personal Protective Equipment (PPE) (4.2)

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

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

Engineering Controls (4.3)

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides (40 CFR 170.240)(d)(4-6), the handler PPE requirements may be reduced or modified as specified in the WPS.

User Safety Recommendations:

Users should:

- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

Environmental Hazards (4.4)

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

Groundwater advisory: 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.

Surface water advisory: This product can contaminate surface water through spray drift. Under some conditions, this product 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.

Endangered Species Protection

If endangered plant species occur in proximity to the application site, the following mitigation measures are required:

- In case of ground application 200 feet buffer zone must be left untreated. Application must be accomplished using a low boom connected with fine to medium coarse nozzle.
- In case of aerial application 170 feet buffer zone must be maintained. A nozzle delivering larger droplets must be used and wind must be no more than 8 mph and delivery height must be no more than 15 ft.

Visit the website <http://www.epa.gov/espp/usa-map-htm>

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

Physical/Chemical Hazards (4.5)

Combustible - 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.

AGRICULTURAL USE REQUIREMENTS (5)

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 24 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.

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STORAGE AND DISPOSAL (5.1)

Do not contaminate water, food or feed by storage and disposal.

Pesticide Storage

Store product in original container only, away from other pesticides, fertilizer, food or feed. Do not use or store around the home.

Do not store below 32F. Product that has been frozen should be thawed and recirculated prior to its use. Store in a cool, dry place and avoid excess heat.

In Case of Spill

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

To Confine Spill

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

Pesticide Disposal

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

Container Disposal

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

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

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

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

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

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

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

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

RESISTANCE MANAGEMENT (7.0)

Some weeds are known to develop resistance to herbicides that have been used repeatedly. While the development of herbicide resistance is well understood, it is not easily predicted. Therefore herbicides should be used in conjunction with the resistance management strategies in the area. Consult the local or State agricultural advisors for details. If herbicide resistance should develop in the area, this product used alone may not continue to provide sufficient levels of weed control. If the reduced levels of control cannot 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.

GENERAL INFORMATION (8.0)

- F7488-1 is a soil-applied herbicide for the control of susceptible broadleaf, grass and sedge weeds.
- If adequate moisture (1/2" to 1") from rainfall or irrigation is not received within 7 to 10 days after the F7488-1 treatment, a shallow incorporation (less than 2"), may be needed to obtain desired weed control.
- When activating moisture is not received a planned POST application of a labeled herbicide will be needed for optimum weed control. If an activating rainfall (1/2" to 1.0") is not received F7488-1 will provide a reduced level of control of susceptible germinating weeds.
- Do not apply additional products containing sulfentrazone and pendimethalin to the crop unless specified in the individual crop section per twelve month season.

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 F7488-1.

Proper handling instructions: F7488-1 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 wash water, and rainwater that may fall on the pad. Surface water shall not be allowed to either flow over or from the pad, which means the pad must be self-contained. The pad shall be sloped to facilitate material removal. An unroofed pad shall be of sufficient capacity to contain at a minimum 110% of the capacity of the largest pesticide container or application equipment on the pad. A pad that is covered by a roof of sufficient size to completely exclude precipitation from contact with the pad shall have a minimum containment capacity of 100% of the capacity of the largest pesticide container or application equipment on the pad. Containment capacities as described above shall be maintained at all times. The above specific minimum containment capacities do not apply to vehicles when delivering pesticide shipments to the mixing/loading site. States may have in effect additional requirements regarding wellhead setbacks and operational containment.

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

GENERAL APPLICATION INSTRUCTIONS (9.0)

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

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 F7488-1 per acre per twelve-month period as stated in Table 2. The twelve-month period is considered to begin upon the initial F7488-1 application.

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

Extreme care must be exercised and the Crop Specific Use Directions followed. See specific crop section on F7488-1 label.

Mode of Action (9.1)

F7488-1 provides two modes of action- Protoporphyrinogen Oxidase IX (PPO IX) and a meristematic inhibitor that interferes with the plant's cellular division or mitosis.

Mechanism of Action (9.2)

Following the application of F7488-1 to soil, germinating seeds and seedlings take up F7488-1 from the soil solution. The amount of F7488-1 in soil solution available for weed uptake, is determined primarily by soil type, organic matter and soil pH. F7488-1 adsorbs to the clay and organic matter (OM) fractions of soils; effectively limiting the amount of active ingredient immediately available to control weeds.

Influence of Soil type, organic matter and pH on F7488-1 Use Rates and Crop Response (9.3)

Coarse and high pH >7.2 soils will exhibit increased weed control and crop response with F7488-1. It is important to know the soil type and pH levels of the field (or areas within a field) for application to determine the proper rate of F7488-1 for the crop. Soil organic matter content and pH can vary widely and independently of soil type and requires an accurate analysis of representative soil samples to determine its content.

It is important to note that irrigation with highly alkaline water (high pH) following a F7488-1 soil application can also significantly increase the amount of F7488-1 available in the soil solution. Irrigation with water having a pH greater than 7.2 could result in adverse crop response. This response will ultimately depend on initial F7488-1 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.

SOIL CLASSIFICATION CHART

| COARSE | MEDIUM | FINE |
|------------|-----------------|-----------------|
| Sand | Sandy clay loam | Silty clay loam |
| Loamy sand | Sandy clay | Silty clay |

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| | | |
|------------|-----------|-----------|
| Sandy loam | Loam | Clay loam |
| | Silt loam | Clay |
| | Silt | |

APPLICATION INFORMATION (10.0)

Ground Application (10.1)

Utilize a sprayer equipped with the appropriate nozzles providing 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. The sprayer should be properly calibrated to deliver the appropriate volume of herbicide solution. Be aware that overlaps and slower ground speeds while starting, stopping or turning while spraying may result in excessive application and subsequent crop response.

Aerial Application (10.2)

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

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

Chemigation Application (10.3)

F7488-1 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 F7488-1 soil application can also significantly increase the amount of F7488-1 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 F7488-1 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.

F7488-1 should be metered into the irrigation system continuously for the duration of the water application. F7488-1 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 F7488-1 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. F7488-1 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 (10.4)

F7488-1 may be applied impregnated on dry fertilizers. When applied as directed with adequate soil coverage, F7488-1 dry bulk fertilizer mixtures will provide satisfactory weed control.

Follow all F7488-1 label directions regarding product use rates per acre, registered crops, incorporation, special instructions and precautions.

Apply F7488-1/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 F7488-1/dry fertilizer mixture.

Impregnation Directions (10.4.1)

To impregnate F7488-1 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 F7488-1 in a clean container using clear water. Slowly add the F7488-1/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 F7488-1 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 F7488-1 dry bulk fertilizer with an accurately calibrated dry fertilizer spreader. The F7488-1 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 F7488-1 use rates could result in possible crop response.

A minimum of 200 pounds of dry bulk fertilizer impregnated with the listed amount of F7488-1 must be applied per acre to achieve adequate soil coverage for satisfactory weed control.

DO NOT impregnate F7488-1 onto coated ammonium nitrate or limestone because these materials will not absorb the herbicide.

Refer to the appropriate crop section of the F7488-1 label to determine the rate of F7488-1 to be applied per acre. Use the following table to determine the amount of F7488-1 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 F7488-1 to be impregnated on a ton of dry bulk fertilizer using the following formula:

| | | | | |
|-----------------------------------|---|---|---|--|
| 2000 | X | F7488-1 use rate in fluid ounces per acre | = | fluid ounces of F7488- 1 to be applied per ton of fertilizer |
| Pounds dry fertilizer per acre | | | | |

RATE CHART FOR IMPREGNATION OF DRY BULK FERTILIZERS WITH F7488-1

Table 1:

| Dry fertilizer rate per acre | Fluid Ounces F7488-1 per ton of fertilizer | | |
|---------------------------------|--|-----------------|-----------------|
| | F7488-1 Use Rate Per Acre | | |
| lb/acre | 30 fl oz / acre | 40 fl oz / acre | 80 fl oz / acre |
| 200 | 300 | 400 | 800 |
| 250 | 240 | 320 | 640 |
| 300 | 200 | 267 | 533 |
| 350 | 171 | 229 | 457 |
| 400 | 150 | 200 | 400 |
| 450 | 133 | 178 | 355 |

Application with Liquid Fertilizer (10.4.2)

F7488-1 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, F7488-1 applied with liquid fertilizer mixtures will provide satisfactory weed control. However, adequate soil coverage is essential to achieve acceptable levels of weed control.

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

Mixing Instructions for Liquid Fertilizer Applications (10.4.3)

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 F7488-1 in a clean container with clean water using equal volumes of F7488-1 and clean water. Slowly add the F7488-1/water slurry to the spray tank. Carefully rinse the slurry container, adding the rinsate to the spray tank. Better mixing of the F7488-1/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 F7488-1 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 F7488-1 spray mixture immediately after mixing. It is not recommended to store the sprayer overnight or for any extended period of time with the F7488-1 spray mixture remaining in the tank. Thoroughly re-agitate spray mixture if product is left sitting in the tank for extended period of time.

Do not premix F7488-1 spray solutions in nurse tanks.

Follow all F7488-1 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 F7488-1 and fertilizer mixture.

SPRAY DRIFT MANAGEMENT (11.0)

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

Spray Drift Management (11.1)

AVOIDING SPRAY DRIFT AT THE APPLICATION SITE IS THE RESPONSIBILITY OF THE APPLICATOR AND THE GROWER.

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

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

1. The distance of the outermost nozzles on the boom must not exceed 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 Spray Drift Management.

Information on Droplet Size (11.2)

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 (11.3)

Volume - Use high flow rate nozzles to apply the greatest practical spray volume. Nozzles with higher rated flow generally produce larger droplets.

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

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

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

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

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

Boom Length - For some aerial use patterns, reducing the effective boom length to less than 3/4 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 F7488-1(11.4)

Drift of dilute spray mixtures containing F7488-1 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. F7488-1 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 F7488-1 drift mixtures. Depending on concentration of the spray solution and droplets size (effectively determining the dosage of F7488-1 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 F7488-1 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 F7488-1.

**MAXIMUM ALLOWABLE F7488-1 (12.0)
USE PER ACRE PER 12 MONTH PERIOD***

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

Table 2

| Name of the crop | F7488-1 fl. oz./A |
|------------------|-------------------|
| Corn | 77 |
| Peanuts | 60 |
| Potatoes | 58 |
| Soybeans | 58 |
| Sugarcane | 137 |
| Sunflowers | 69 |
| Tobacco | 58 |
| Dry Beans & Peas | 58 |
| Lima Beans | 58 |
| Mint | 77 |

*The total allowed usage 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 F7488-1 application.

Do not exceed maximum allowed use rate of sulfentrazone or pendimethalin on each crop.

CROP ROTATIONAL RESTRICTIONS (13.0)

The following Table 3 shows the minimum interval in months from the time of the last F7488-1 application until F7488-1 treated soil can be replanted to the crops listed. When F7488-1 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 F7488-1 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 F7488-1.

CROP ROTATIONAL RESTRICTIONS*

Table 3

| Crop | Interval (Months) |
|---|-------------------|
| Alfalfa | 12 |
| Barley | 4* |
| Cabbage | 20 |
| Canola | 24 |
| Cereal Grains (, Oats, Pearl Millet, Proso Millet, Teosinte, Wild Rice) | 12 |
| Corn, Field | Anytime |
| Corn, Pop | 18 |
| Corn, Sweet | 18 |
| Cotton | 18 |
| Dry Shell Peas and Beans | Anytime |
| Horseradish | 20 |
| Limas Tennessee Only | Anytime |
| Mint | Anytime |
| Peanuts | Anytime |
| Potatoes | Anytime |
| Rice | 10 |
| Rye | 20 |
| Sorghum | 18* |
| Soybeans | Anytime |
| Sugar Beets | 36 |
| Sugarcane | Anytime |
| Sunflowers | Anytime |
| Sweet Potatoes | 12 |
| Triticale | 20 |
| Tobacco | Anytime |
| Turf | 20 |
| Wheat | 4* |

*For sorghum the rotational interval is 10 months except in states of MN, ND and SD or any other areas with <20" of annual rainfall or irrigation, then the rotational interval is 18 months

*For wheat and barley, the rotational interval is 4 months if the rainfall or irrigation is 12" or more between application and planting. If rainfall or irrigation is below 12", wheat and barley should not be planted before 12 months for a spring application of F7488-1 and 14 months after a fall application of F7488-1.

For all other crops not listed, the rotation interval is a minimum of 20 months with a representative bioassay to determine crop safety before planting.

BAND TREATMENT APPLICATIONS (14.0)

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

| | | | | |
|-------------------|---|---------------------------|---|-------------|
| Band Width Inches | X | Broadcast Rate Per Acre | = | Band Rate |
| Row Width Inches | | | | |
| Band Width Inches | X | Broadcast Volume Per Acre | = | Band Volume |
| Row Width Inches | | | | |

MIXING AND LOADING INSTRUCTIONS (15.0)

F7488-1 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 F7488-1 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 F7488-1 in a clean container using clean water. Slowly add the F7488-1/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 F7488-1 is thoroughly mixed before application or before adding another product to the spray tank.

Use the F7488-1 spray mixture immediately after mixing. Do not store the sprayer overnight or for any extended period of time with the F7488-1 spray mixture remaining in the tank.

Do not premix F7488-1 spray solutions in nurse tanks.

If F7488-1 is tank mixed with other herbicides, all additional directions, restrictions and precautions for the tank mixture herbicides must be followed.

SPRAYER EQUIPMENT CLEAN-OUT (16.0)

As soon as possible after spraying F7488-1 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 F7488-1 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 F7488-1 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 F7488-1 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 or flush equipment on or near desirable trees or plants.

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

REPLANTING INSTRUCTIONS (17)

If initial planting of labeled crops fails to produce a stand, only crops labeled for F7488-1 or the tank mix partner, whichever is most restrictive, may be planted based on the amount of product initially applied. Do not retreat field with F7488-1 or other herbicide containing sulfentrazone and pendimethalin. 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) (18)

Table 4:

| F7488-1 Use Rate(Corn) | | | |
|---|------------------------|--------|------|
| Preemergence Applications | | | |
| Broadcast Rate | Fl Oz F7488-1 per acre | | |
| | Soil Texture | | |
| % Organic Matter | Coarse | Medium | Fine |
| <1.5 | 25 | 38 | 38 |
| 1.5-3.0 | 38 | 38 | 58 |
| >3 | 38 | 58 | 77 |
| Refer to the previous information on soil types under the COARSE, MEDIUM, and FINE categories | | | |
| For soils with pH >7.2 use the lowest rate for that specific soil texture and organic matter. | | | |

Preemergence (Spring Applications) (18.1)

Apply F7488-1 after planting and up to 3 days after planting (Table 4). F7488-1 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, F7488-1 may be tank mixed with insecticides including Mustang Max or Capture LFR. If weeds are emerged at the time of F7488-1 application, use a burndown herbicide in conjunction with F7488-1 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.

Precautions

- Regardless of tillage system used, plant corn at least 2 inches deep and completely cover seed with soil.
- These Crop Specific Use directions are based upon the interactive effects of F7488-1 and the primary soil and environmental factors, which affect its activity on various weed species and tolerance among crops. The user is required to observe the instructions and guidance previously presented under General Application Instructions,

Restrictions

Do not apply more than 77 fluid oz of F7488-1 per twelve-month period which is considered to begin upon the initial F7488-1 application.

Do not apply in reduced, minimum, or no-till seed corn or popcorn.

Do not apply in no-till corn in California.

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

PEANUTS (19.0)

Apply F7488-1 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

Incorporation of F7488-1 deeper than 2 inches can result in adverse crop response and/or inconsistent weed control. Do not use F7488-1 for "at-crack" type applications or apply to exposed peanut tissue. Such use can result in significant adverse crop response. Under conditions of exceptionally high weed populations or when weeds not controlled by F7488-1 are anticipated, the use of suitable post-emergent peanut herbicides is recommended. Broadcast apply the correct F7488-1 use rate from Table 5 below, in a minimum of 10 gallons of water per acre of finished spray by ground or 5 gallons of water per acre of finished spray by air. Banded F7488-1 application rates must be adjusted in proportion to the broadcast rate.

Preplant incorporated: Apply F7488-1 up to 30 days prior to planting and incorporate.

Preemergence: Apply F7488-1 at planting or up to 2 days after planting and before crop emergence. Proper closed seed furrows are required when applying at planting time or before seed germination. To prevent decreased crop pegging, adequate incorporation must be achieved by applying a minimum of 0.75 inches of overhead irrigation or rainfall within 48 hours of application.

F7488-1 Use Rates and Weeds Controlled

Table 5:

| F7488-1 Use Rate (Peanuts) | | | |
|---|------------------------|--------|------|
| Preemergence and Preplant Incorporation Application | | | |
| Broadcast Rate | Fl Oz F7488-1 per acre | | |
| % Organic Matter | Soil Texture | | |
| | Coarse | Medium | Fine |
| <1.5 | 27-33 | 33-38 | 38* |
| 1.5-3.0 | 33-38* | 38* | 38* |
| >3 | 38* | 38* | 38* |

Refer to the previous information on soil types under the COARSE, MEDIUM, and FINE categories
 For soils with pH >7.2 use the lowest rate for that specific soil texture and organic matter.
 *For heavy weed infestations, up to 50 oz/A of F7488-1 can be used on fine soil texture with <1.5% OM and coarse soil texture with 1.5-3.0% OM and 60 oz/A on medium and fine soil texture with 1.5-3.0% OM or any soil texture with > 3.0% OM in Alabama, Florida and Georgia.

When applied, as directed, at 38 fl oz per acre, F7488-1 will provide control of the listed weeds

| | |
|-------------------------|--------------------------|
| Amaranth, spp | Jimsonweed |
| Copperleaf, hophornbeam | Lambsquarters, common |
| Croton, tropic | Morningglory, entireleaf |
| Crownbeard, golden | Morningglory, red |
| Devilsclaw | Goosegrass |
| Amaranthus, Palmer | Morningglory, pitted* |
| Crabgrass, large | Morningglory, ivyleaf |
| Crabgrass, Southern | Smartweed, PA (seedling) |
| Signalgrass, broadleaf | |

*Suppression

Irrigation with alkaline (pH 8 to 9) water can result in adverse crop response. The extent of crop response is dependent on F7488-1 application rate, soil type (including %OM and pH), timing (after F7488-1 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.

Precautions

F7488-1 is especially effective against a wide range of economic broadleaf and grass weeds. The same process that F7488-1 affects in these weeds can, under certain conditions, be affected in peanuts. These conditions include pH (7.5 and above), cool weather, prolonged and excessive moisture, seedling disease, and other conditions, including poor agronomic practices, that are unfavorable to vigorous crop growth. Such effects in peanuts 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 a return to normal growing conditions.

These Crop Specific Use directions are based upon the interactive effects of F7488-1 (sulfentrazone) and the primary soil and environmental factors, which affect its activity on various weed species and tolerance among crops. The user is required to observe the instructions and guidance previously presented under General Application Instructions, General F7488-1 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 F7488-1. Consult university or extension weed management specialists for additional information on specific local varieties or cultivars and any other pertinent information on F7488-1 under specific local conditions.

Restrictions

Do not apply more than 60 fl oz of F7488-1 per acre per twelve-month period which is considered to begin upon the initial F7488-1 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.

Do not apply >3/4" irrigation prior to complete emergence

POTATOES (20)

Table 6:

| F7488-1 Use Rate (Potatoes) | | | |
|-----------------------------|------------------------|--------|-------|
| Preemergence Application | | | |
| Broadcast Rate | Fl Oz F7488-1 per acre | | |
| % Organic Matter | Soil Texture | | |
| | Coarse | Medium | Fine |
| <1.5 | 29 | 38-45 | 48-58 |
| 1.5-3.0 | 29-40 | 38-58 | 58 |
| >3 | 29-45 | 58 | 58 |

*Refer to the previous information on soil types under the COARSE, MEDIUM, and FINE categories
For soils with pH >7.2 use the lowest rate for that specific soil texture and organic matter.

Ground and Aerial Applications (20.1)

Apply F7488-1 by aerial application as a preemergence treatment following planting and after dragoff, but prior to potato emergence. Optimum performance can be achieved if F7488-1 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 6 above. For control of emerged weeds at the time of the F7488-1 application, an appropriate burndown herbicide and adjuvant labeled for potatoes may be tank mixed with F7488-1 to control these weeds. Do not apply F7488-1 if the potatoes have emerged from the soil as undesirable crop response may occur. F7488-1 may be tank mixed with other soil-applied herbicides labeled for use in potatoes to improve weed management and increase weed control spectrum.

Apply F7488-1 in a minimum of 10 gallons of spray by ground application and 5 gallons of spray by air.

Chemigation Applications (20.2)

F7488-1 may be applied to potatoes through sprinkler irrigation systems including center pivot, lateral move, end tow, solid set or hand move irrigation systems. Apply F7488-1 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. F7488-1 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 F7488-1 soil application may significantly increase the amount of sulfentrazone and pendimethaline 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 F7488-1 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, F7488-1 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 |

Precautions

Potato varieties may vary in their response to herbicide applications. When using F7488-1 on an untested variety, always determine the crop tolerance before planting. Some potato varieties, including Sangre, Shepody and Snowden, have shown sensitivity to F7488-1. Caution should be used when planting these varieties on marginal coarse soils.

These Crop Specific Use directions are based upon the interactive effects of F7488-1 and the primary soil and environmental factors, which affect its activity on various weed species and tolerance among crops. The user is required to observe the instructions and guidance previously presented under General Application Instructions, General F7488-1 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 F7488-1. Consult university or extension weed management specialists for additional information on specific local varieties or cultivars and any other pertinent information on F7488-1 under specific local conditions.

Restrictions

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

Do not apply F7488-1 after potato emergence from the soil as undesirable crop response may occur.

Do not apply more than 58 fl oz of product per acre per twelve-month period which is considered to begin upon the initial application.

Do not apply to sweet potatoes or yams.

Do not apply preplant.

Do not make more than one application per season.

Application on White Rose variety potatoes during or followed by cool and/or wet weather conditions may result in crop injury.

SOYBEANS (21.0)

Table 7:

| F7488-1 Use Rate | | | |
|---|------------------------|--------|------|
| Fall, Spring Early Preplant, Preemergence, and Preplant Incorporated Applications | | | |
| Broadcast Rate | Fl Oz F7488-1 per acre | | |
| | Soil Texture | | |
| % Organic Matter | Coarse | Medium | Fine |
| <1.5 | 29.0-40 | 36-45 | 58 |
| 1.5-3 | 38.6-45 | 42-58 | 58 |
| >3 | 40-58 | 58 | 58 |

Refer to the previous information on soil types under the COARSE, MEDIUM, and FINE categories
For soils with pH >7.2 use the lowest rate for that specific soil texture and organic matter. DO NOT exceed 40.5 fl oz/A F7488-1 for southern states.

Ground and Aerial Applications (21.1)

Apply F7488-1 in conventional tillage, conservation tillage, reduced tillage or no-tillage cropping systems using rates recommended in the F7488-1 Use Rate Table 7. F7488-1 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 (21.2)

F7488-1 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. F7488-1 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. F7488-1 applied near or after crop emergence may cause severe injury to the crop. F7488-1 can be applied alone or in combination with other labeled soybean herbicides. F7488-1 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 F7488-1 in no-till or minimum till cropping systems, tank mix with an appropriate burndown herbicide for improved control of existing weeds.

Fall Applications (21.3)

F7488-1 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 F7488-1 must be made in weed control programs that include, as needed, spring application of preplant, preemergence or postemergence herbicides for the following crop season. F7488-1 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 F7488-1 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.

For season long broadleaf weed control an additional tank mix or a plant post broadleaf weed program is required.

Weeds Controlled

When Applied according to directions, F7488-1 will provide control of:

| | |
|-------------------------------------|---------------------------|
| Amaranth, Palmer | Nightshade, eastern black |
| Copperleaf, hophornbeam | Pigweed, spp. |
| Kochia (ALS and Triazine Resistant) | Sida, prickly |
| Lambsquarters, common | Thistle, Russian |
| Morningglory, spp. | Waterhemp, spp. |
| Nutsedge Spp | Witch grass |
| Foxtail spp | Fall Panicum |
| Crabgrass | Star-Bethlehem |
| Sandbur, Field | Texas panicum |
| Goosegrass | Barnyardgrass |

Precautions

When applying F7488-1 with other registered herbicides, refer to specific label information on precautions, instructions, limitations, application methods and timings, and weeds controlled.

Restrictions

Do not apply more than 77 fl oz per acre of F7488-1 per twelve-month period which is considered to begin upon the initial F7488-1 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 F7488-1 runoff from rain or snowmelt that may occur following application.

Do not apply after crop seed germination.

SUGARCANE (22.0)

Table 8:

| F7488-1 Use Rate (Sugarcane) | | | |
|------------------------------|------------------------|--------|------|
| Planting Time Applications | | | |
| Broadcast Rate | Fl Oz F7488-1 per acre | | |
| % Organic Matter | Soil Texture | | |
| | Coarse | Medium | Fine |
| <1.5 | 80 | 80 | 96 |
| 1.5-3 | 80 | 96 | 120 |
| >3 | 96 | 120 | 120 |

This rate table is for all States except Hawaii
 Refer to the previous information on soil types under the COARSE, MEDIUM, and FINE categories
 For soils with pH >7.2 use the lowest rate for that specific soil texture and organic matter.
 Florida Muck soils and Hawaii use up to 137 fl oz /acre

Apply F7488-1 as a broadcast or banded preemerge soil applied treatment for the control of broadleaf weeds, grasses and sedges in sugarcane. Refer to the F7488-1 Product Use Rate Section and Table 8 for specific use information.

Planting Time Applications (22.1)

Apply F7488-1 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 11 gallons of spray per acre or by ground equipment in a minimum of 15 gallons of spray per acre. F7488-1 may be applied with other herbicides registered for use in sugarcane.

Aerial Applications (22.2)

F7488-1 may be applied by air in a minimum of 11 gallons of finished spray per acre. F7488-1 may be applied with other herbicides or insecticides registered for aerial application in sugarcane.

Weeds Controlled

When applied according to directions, F7488-1 will provide control of:

| | |
|--------------------------|--------------------|
| Morningglory, entireleaf | Morningglory, tall |
| Morningglory, ivyleaf | Pigweed, red root |
| Morningglory, red | Nutsedge, yellow |
| Seedling Johnsongrass, | brown top panicum |
| Itchgrass | |

Restrictions

Do not apply within 120 days of harvest.

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

Do not allow spray to contact crop leaves.

Do not apply more than 137 fl oz per acre of F7488-1 per acre per twelve-month period which is considered to begin upon the initial F7488-1 application.

Do not make aerial applications at close-in because complete and uniform coverage cannot be obtained.

Do not apply through any type of irrigation system.

Do not graze treated fields or feed treated forage or fodder to livestock.

SUNFLOWERS (23.0)

Table 9:

| F7488-1 Use Rate (Sunflowers) | | | |
|--|------------------------|--------|-------|
| Spring Preemergence, and Spring Preplant Incorporated Applications | | | |
| Broadcast Rate | Fl Oz F7488-1 per acre | | |
| % Organic Matter | Soil Texture | | |
| | Coarse | Medium | Fine |
| <1.5 | 28-40 | 32-45 | 48-58 |
| 1.5-3.0 | 32-45 | 40-58 | 58 |
| >3 | 40-58 | 58 | 58 |

Refer to the previous information on soil types under the COARSE, MEDIUM, and FINE categories
 For soils with pH >7.2 use the lowest rate for that specific soil texture and organic matter.

Spring Preemergence (23.1)

F7488-1 can be applied at planting or up to 2 days after planting as a preemerge soil application if seedlings have not broken the soil surface and if the seed furrow is completely closed and completely covered with soil. 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 (Table). Adequate moisture (1/2" to 1") is required for herbicide activation from rainfall or irrigation. If adequate moisture is not received within 7 to 10 days after the F7488-1 treatment, a shallow incorporation may be needed to obtain desired weed control. When activating moisture is not received a planned POST application of a labeled herbicide will be needed for optimum weed control. If an activating rainfall (1/2" to 1.0") is not received F7488-1 will provide a reduced and inconsistent level of control of susceptible germinating weeds. If dry conditions persist, weed control may be reduced.

If weeds are emerged at the time of F7488-1 application, use a burndown herbicide such as AIM, glyphosate and paraquat at the full-labeled rate in combination with F7488-1 or split application as needed.

Spring Preplant Incorporated (PPI) (23.2)

F7488-1 can be applied as a Preplant Incorporated treatment in the spring up to 60 days prior to planting in reduced and conventional tillage sunflowers. F7488-1 should be shallowly incorporated in the soil no deeper than 2 inches. Incorporating F7488-1 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.

Weeds Controlled:

When applied according to directions, F7488-1 will provide control of :

| | |
|-------------------------------------|--------------------|
| *Amaranth, Palmer | *Pigweed, red root |
| Kochia (ALS and Triazine Resistant) | *Pigweed, smooth |
| *Lambsquarters, common | *Thistle, Russian |
| Morningglory, ivyleaf | *Waterhemp, common |
| Morningglory, tall | *Waterhemp, tall |
| Nightshade, Eastern black | *Witch grass |
| *Giant foxtail | *Fall Panicum |
| *Green Foxtail | *Barnyardgrass |
| *Crabgrass | *Texas panicum |
| *Sandbur, Field (suppression only) | *Goosegrass |

*Partial control will occur under dry conditions, under heavy pest pressure or at low use rates under 45 fl oz. Under these conditions plan to use a labeled POST herbicide for improved control.

Precautions

Plant sunflowers 1.5" to 2.0" deep and completely cover with soil. When applying F7488-1 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 F7488-1 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 7.2 or higher, or on highly eroded soils, or in areas of calcareous outcroppings. F7488-1 use rates should be reduced to 28 fl oz in those areas or not applied in these areas at all. Inadequate seed furrow closure or shallow planting (less than 1.5 inch) may result in undesirable crop response and this product should not be applied. 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 F7488-1 and the primary soil and environmental factors, which affect its activity on various weed species and tolerance among crops. The user is required to observe the instructions and guidance previously presented under General Application Instructions, General F7488-1 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 F7488-1. Consult university or extension weed management specialists for additional information on specific local varieties or cultivars and any other pertinent information on F7488-1 under specific local conditions.

Restrictions

Do not apply more than 58 fl oz of F7488-1 per twelve-month period to sunflowers which is considered to begin upon the initial F7488-1 application.

Spartan Advance and Spartan Charge also contain sulfentrazone, do not apply these products if F7488-1 has been previously applied within the same twelve month period.

Do not apply to frozen soils or existing snow cover to prevent F7488-1 runoff from rain or snowmelt that may occur following application.

Do not apply in California.

Do not feed forage or graze livestock in treated areas.

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

TOBACCO (Burley, Flue-Cured and Dark) (24.0)

Table 10:

| F7488-1 Use Rate (Tobacco) | | | |
|---|------------------------|--------|------|
| Preemergence and Preplant Incorporated Applications | | | |
| Broadcast Rate | Fl Oz F7488-1 per acre | | |
| % Organic Matter | Soil Texture | | |
| | Coarse | Medium | Fine |
| <1.5 | 28 | 28 | 40 |
| 1.5-3 | 28 | 40 | 40 |
| >3 | 40 | 40 | 40 |

Refer to the previous information on soil types under the COARSE, MEDIUM, and FINE categories
For soils with pH >7.2 use the lowest rate for that specific soil texture and organic matter.

Do not exceed the F7488-1 rate as specified in the rate table by soil type and percent organic matter. F7488-1 may be surface applied or preplant incorporated (to a depth no greater than 2 inches) from 14 days up to but prior to transplanting tobacco in a minimum of 10 gallons per acre of water. Incorporating F7488-1 deeper than 2 inches can result in inconsistent weed control.

Non-Bedded (Fields where raised beds are NOT formed prior to transplanting) (24.1)

Perform all accepted cultural practices for land preparation, fertilizer/fungicide incorporation, etc. prior to the application of F7488-1. Once the field has been prepared for planting, F7488-1 may be surface applied or lightly preplant incorporated from 14 days to 12 hours prior to transplanting.

If F7488-1 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) (24.2)

Apply F7488-1 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 F7488-1 application.

When incorporating prior to bedding, F7488-1 must be thoroughly and uniformly incorporated to a depth no greater than 2 inches to avoid concentrating F7488-1 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 F7488-1, or any other herbicide containing sulfentrazone or pendimethalin. 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, F7488-1 will provide partial control of the following weeds:

| | |
|-----------------------|-------------------------|
| Amaranthus, palmer | Pigweed, redroot |
| Filaree, redstem | Pigweed, smooth |
| Galinsoga, hairy | Sida, prickly |
| Lambsquarters, common | Signalgrass, broadleaf |
| Morningglory, ivyleaf | Smartweed, Pennsylvania |
| Morningglory, tall | Nutsedge, yellow |

Precautions

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

These Crop Specific Use directions are based upon the interactive effects of F7488-1 and the primary soil and environmental factors, which affect its activity on various weed species and tolerance among crops. The user is required to observe the instructions and guidance previously presented under General Application Instructions, General F7488-1 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 F7488-1. Consult university or extension weed management specialists for additional information on specific local varieties or cultivars and any other pertinent information on F7488-1 under specific local conditions.

Restrictions

- Do not use on Shade Grown Tobacco
- Do not apply F7488-1 to soils classified as sands containing less than 1% organic matter.
- Do not use F7488-1 in tobacco seeding beds or greenhouses.
- Do not apply F7488-1 post-transplant as unacceptable injury may occur.
- Do not perform tillage practices that concentrate F7488-1 into the bed or crop injury may occur.
- Do not apply more than 58 fl oz per acre of F7488-1 per acre per twelve-month period which is considered to begin upon the initial F7488-1 application.
- Do not incorporate greater than 2 inches deep.

VEGETABLE CROPS

Before applying F7488-1 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 of this label.

DRY SHELLED BEANS AND PEAS (25.0)

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

Table 11:

| F7488-1 Use Rate (Dry Shelled Beans) | | | |
|---|------------------------|--------|-------|
| Fall or Spring Early Preplant, Preemergence, and Preplant Incorporated Applications | | | |
| Broadcast Rate | Fl Oz F7488-1 per acre | | |
| | Soil Texture | | |
| % Organic Matter | Coarse | Medium | Fine |
| <1.5 | 23-30 | 30-45 | 30-45 |
| 1.5-3.0 | 30-45 | 38-58 | 45-58 |
| >3 | 38-58 | 45-58 | 58 |

Refer to the previous information on soil types under the COARSE, MEDIUM, and FINE categories
For soils with pH >7.2 use the lowest rate for that specific soil texture and organic matter.

Table 12:

| F7488-1 Use Rate (Dry Shelled Peas) |
|---|
| Fall or Spring Early Preplant, Preemergence, and Preplant Incorporated Applications |

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| Broadcast Rate | Fl Oz F7488-1 per acre | | |
|------------------|------------------------|--------|-------|
| | Soil Texture | | |
| % Organic Matter | Coarse | Medium | Fine |
| <1.5 | 22.5-30 | 30-45 | 30-45 |
| 1.5-3.0 | 30-45 | 38-58 | 45-58 |
| >3 | 38-58 | 45-58 | 58 |

Refer to the previous information on soil types under the COARSE, MEDIUM, and FINE categories
For soils with pH >7.2 use the lowest rate for that specific soil texture and organic matter.

Fall Applications (For use only in ND, SD, MT, MN, WY, CO, NE, KS) (25.1)

F7488-1 may be applied in the fall as a preplant treatment to control or suppress weeds prior to planting dry field pea and bean the following spring. F7488-1 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 F7488-1 runoff from rain or snow melt that may occur following application. If weeds are emerged at the time of F7488-1 application, use a burndown herbicide such as Aim, Rage D-Tech, glyphosate or paraquat at the full-labeled rate in combination with F7488-1 or split application as needed. Select the appropriate rate from Table 9 above within the correct soil type and organic matter range. When applying F7488-1 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) (25.2)

F7488-1 can be applied early preplant prior to planting or 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 and completely covered with soil. For preemerge applications greater than 3 weeks prior to planting, use the appropriate rate range for the soil texture and organic matter listed in the use rate chart above (Table). Adequate moisture (1/2" to 1") is required for herbicide activation from rainfall. If adequate moisture is not received within 7 to 10 days after the F7488-1 treatment, a shallow incorporation may be needed to obtain desired weed control. When activating moisture is not received a planned POST application of a labeled herbicide will be needed for optimum weed control. If an activating rainfall (1/2" to 1.0") is not received F7488-1 will provide a reduced and inconsistent level of control of susceptible germinating weeds. If dry conditions persist, weed control may be reduced.

If weeds are emerged at the time of F7488-1 application, use a burndown herbicide such as AIM, glyphosate and paraquat at the full-labeled rate in combination with F7488-1 or split application as needed.

Preplant Incorporated (PPI) (25.3)

F7488-1 can be applied as a Preplant Incorporated treatment in the spring prior to planting in reduced and conventional tillage dry beans and peas. F7488-1 should be shallowly incorporated in the soil no deeper than 2 inches. Incorporating F7488-1 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.

Weeds Controlled:

When applied according to directions, F7488-1 will provide control of:

| | |
|-------------------------------------|-------------------|
| Amaranth, Palmer | Pigweed, red root |
| Kochia (ALS and Triazine Resistant) | Pigweed, smooth |
| Lambsquarters, common | Thistle, Russian |
| Morningglory, ivyleaf | Waterhemp, common |
| Morningglory, tall | Waterhemp, tall |
| Nightshade, Eastern black | *Witch grass |
| *Giant foxtail | *Fall Panicum |
| *Green foxtail | *Barnyardgrass |
| *Crabgrass | *Texas panicum |
| *Sandbur, Field (suppression only) | *Goosegrass |

*Partial control will occur under dry conditions, under heavy pest pressure or at low use rates under 45 fl oz. Under these conditions plan to use a labeled POST herbicide for improved control.

Precautions

When applying F7488-1 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 F7488-1 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. Adequate moisture (1/2" to 1") is required for herbicide activation from rainfall. If adequate moisture is not received within 7 to 10 days after the F7488-1 treatment, a shallow incorporation may be needed to obtain desired weed control. When activating moisture is not received a planned POST application of a labeled herbicide will be needed for optimum weed control. If an activating rainfall (1/2" to 1.0") is not received F7488-1 will provide a reduced and inconsistent level of control of susceptible germinating weeds. If dry conditions persist, weed control may be reduced.

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, or in areas of calcareous outcroppings. F7488-1 use rates should be reduced to 22.5 fl oz in those areas or not applied in these areas at all. Inadequate seed furrow closure or shallow planting (less than 1.5 inch) may result in undesirable crop response and this product should not be applied. 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 F7488-1 and the primary soil and environmental factors, which affect its activity on various weed species and tolerance among crops. The user is required to observe the instructions and guidance previously presented under General Application Instructions, General F7488-1 Product Use Rates, Rotational Crop Guidelines, Replanting Instructions, Weed Controlled, Crop liability Disclaimer 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 F7488-1. Consult university or extension weed management specialists for additional information on specific local varieties or cultivars and any other pertinent information on F7488-1 under specific local conditions.

Restrictions

Refer to the Crop liability disclaimer on page 5 before using F7488-1.

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Do not apply more than 58 fl oz of F7488-1 per twelve-month period to sunflowers which is considered to begin upon the initial F7488-1 application.

Spartan Advance and Spartan Charge also contain sulfentrazone, do not apply these products if F7488-1 has been previously applied with in the same twelve month period.

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 F7488-1 runoff from rain or snow melt that may occur following application.

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

Do not use under any type of irrigation system

OIL CROPS

MINT (Peppermint and Spearmint) (26.0)

Table 13

| F7488-1 Use Rate (Mint) | | | |
|-------------------------|------------------------|--------|-------|
| Dormant Applications | | | |
| Broadcast Rate | Fl Oz F7488-1 per acre | | |
| | Soil Texture | | |
| % Organic Matter | Coarse | Medium | Fine |
| <1.5 | 28-38 | 32-45 | 48-58 |
| 1.5-3.0 | 32-38 | 40-58 | 58 |
| >3 | 38 | 58 | 58 |

Refer to the previous information on soil types under the COARSE, MEDIUM, and FINE categories
For soils with pH >7.2 use the lowest rate for that specific soil texture and organic matter.

Dormant Applications (26.1)

Apply F7488-1 to established stands of dormant mint after post harvest and/or spring land cultivation has been completed and before emergence of new mint growth.

F7488-1 may also be applied in tank mixtures with other products registered for use in mint. Refer to the most restrictive crop label when tank-mixing F7488-1.

Weeds Controlled

When Applied according to directions, F7488-1 will provide control of:

| | |
|-------------------------------------|---------------------------|
| Amaranth, Powell | Morningglory, ivyleaf |
| Barnyardgrass* | Nightshade, Eastern black |
| Bedstraw, catchweed | Pigweed, redroot |
| Chamomile, mayweed | Shepherdspurse |
| Crabgrass* | Texas panicum* |
| Fall Panicum* | Thistle, Russian |
| Foxtail spp* | Toadflax, yellow |
| Goosegrass* | Waterhemp, common |
| Kochia (ALS and Triazine Resistant) | Waterhemp, tall |
| Lambsquarters, common | |

*Partial control will occur under dry conditions under heavy pest pressure or at low use rates under 45 fl oz. Under these conditions plan to use a labeled POST herbicide application for improved control in this label.

Precautions

Apply F7488-1 only to dormant mint before new growth emerges. Applications made to mint that has emerged will result in severe injury to exposed plant tissue.

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

Moisture (0.5 to 1.0") in the form of rainfall or overhead irrigation is required after application to activate the herbicide. Under extended periods of dry weather, adequate weed control may not be achieved. Adequate moisture (1/2" to 1") is required for herbicide activation from rainfall. If adequate moisture is not received within 7 to 10 days after the When activating moisture is not received a planned POST application of a labeled herbicide will be needed for optimum weed control. If an activating rainfall (1/2" to 1.0") is not received F7488-1 will provide a reduced and inconsistent level of control of susceptible germinating weeds. If dry conditions persist, weed control may be reduced.

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, or in areas of calcareous outcroppings. F7488-1 use rates should be reduced to 28 fl oz in those areas or not applied in these areas at all. Inadequate seed furrow closure or shallow planting (less than 1.5 inch) may result in undesirable crop response and this product should not be applied. 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 F7488-1 and the primary soil and environmental factors, which affect its activity on various weed species and tolerance among crops. The user is required to observe the instructions and guidance previously presented under General Application Instructions, General F7488-1. 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 F7488-1. Consult university or extension weed management specialists for additional information on specific local varieties or cultivars and any other pertinent information on F7488-1 under specific local conditions.

Restrictions

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

Do not apply more than 58 fl oz per acre per twelve-month period which is considered from initial F7488-1 application.

Do not apply to "baby" mint in the first year of growth and establishment

Do not apply to mint that has broken dormancy that has any new growth exposed above the soil surface
Do not apply within 90 days of harvest
Do not apply this product on mint through any type of irrigation system
Do not allow livestock to graze on treated spent hay or feed treated spent hay to livestock
Do not use in California.

LABEL TRACKING INFORMATION (35.0)

Label Code: 08-03-09

Replaces Label Code: 07-29-09

EPA Approval Date: xx-xx-xxxx

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