

## UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION

July 6, 2020

Cristina Rodriguez Senior Registration Manager FMC Corporation 1090 Elkton Rd (S300/417) Newark, DE 19711

Subject: Registration Review Label Mitigation for Pendimethalin and Sulfentrazone Product Name: F7488-1 HERBICIDE EPA Registration Number: 279-3359 Application Date: 06/29/2018 Decision Numbers: 563793, 563794

Dear Ms. Rodriguez:

The Agency, in accordance with the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), as amended, has completed reviewing all the information submitted with your application to support the Registration Review of the above referenced product in connection with the pendimethalin and sulfentrazone Interim Decisions, and has concluded that your submission is acceptable. The label referred to above, submitted in connection with registration under FIFRA, as amended, is acceptable.

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

A copy of your label stamped "Accepted" is enclosed. Products shipped after 12 months from the date of this amendment must bear the new revised label. Your release for shipment of the product bearing the amended label constitutes acceptance of these conditions. If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6.

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If you have any questions about this letter, please contact Srijana Shrestha by phone at 703-305-6471, or via email at Shrestha.Srijana@epa.gov.

Sincerely,

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Linda Arrington, Branch Chief Risk Management and Implementation Branch 4 Pesticide Re-Evaluation Division Office of Pesticide Programs

Enclosure

# F7488-1 Herbicide

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

EPA Reg. No. 279-3359	EPA Est. 279-
Active Ingredient:	By Wt. (1)
Sulfentrazone	
Pendimethalin	31.5%
Other Ingredients:	65.0%
-	100.0%

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**

## If in Eyes

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

### If Inhaled

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

## If on Skin or Clothing

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

## If Swallowed

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

## **HOTLINE NUMBER**

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.

See other sections for precautionary information.





Under the Federal Insecticide, Fungicide and Rodenticide Act as amended, for the pesticide registered under

EPA Reg. No. 279-3359

## PRECAUTIONARY STATEMENTS

Hazards to Humans and Domestic Animals

CAUTION

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

## Personal Protective Equipment (PPE)

Applicators, mixers, loaders, and other pesticide handlers must wear: long-sleeved shirt and long pants, chemicalresistant 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 exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

#### **Engineering Controls**

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**

**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.

<u>Surface water advisory</u>: 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.

**Non-target organism advisory statement:** This product is toxic to plants and may adversely impact the forage and habitat of non-target organisms, including pollinators, in areas adjacent to the treated site. Protect the forage and habitat of non-target organisms by following label directions intended to minimize spray drift.

### **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** 

## Directions for Use

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Do not apply more than the allowed amount of F7488-1 per acre per twelve-month period as stated in the Maximum Use Rate Table. The twelve-month period is considered to begin upon the initial F7488-1 application.

## AGRICULTURAL USE REQUIREMENTS

Combustible - Do not use or store near heat or open flame.

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 such as polyethylene or polyvinyl chloride, and shoes plus socks.

## WEED RESISTANCE MANAGEMENT

F7488-1, which contains the active ingredients sulfentrazone and pendimethalin is a group 14 and 3 herbicide based on the mode of action classification system of the Weed Science Society of America. Proactively implementing diversified weed control strategies to minimize selection for weed populations resistant to one or more herbicides is a best practice. A diversified weed management program may include the use of multiple herbicides with different sites of action and overlapping weed spectrum with or without tillage operations and/or other cultural practices. Research has demonstrated that using the labeled rate and directions for use is important to delay the selection for resistance.

The continued effectiveness of this product depends on the successful implementation of a weed resistance management program.

To aid in the prevention of developing weeds resistant to this product, users should:

- · Scout fields before application for weeds for identification of species and sizes.
- · Start with a clean field, using either a burndown herbicide application or tillage.
- · Control weeds early when they are relatively small (less than 4 inches).

• Apply full rates of F7488-1 for the most difficult to control weed in the field at the specified time (correct weed size) to minimize weed escapes.

- · Scout fields after application to detect any poor performance or likely resistance in weeds.
- · Control weed escapes before they reproduce by seed or proliferate vegetatively.

• Report any incidence of non-performance of this product against a particular weed to your local retailer or county extension agent.

• Contact your crop advisor or extension agent to find out if suspected resistant weeds to these MOAs have been found in your region. Do not assume that each listed weed is being controlled by multiple sites of action. Products with multiple active ingredients are intended to broaden the spectrum of weeds that are controlled. Some weeds may be controlled by only one of the active ingredient in this product.

If resistance is suspected, treat weed escapes with an herbicide having a site of action other than Group 14 or 3 and/or use nonchemical methods to remove escapes, as practical, with the goal of preventing further seed production.

· Suspected herbicide-resistant weeds may be identified by these indicators:

- Failure to control a weed species normally controlled by the herbicide at the dose applied, especially if control is achieved on adjacent weeds;
- A spreading patch of non-controlled plants of a particular weed species; and
- Surviving plants mixed with controlled individuals of the same species.

Additionally, users should follow as many of the following herbicide resistance management practices as is practical:

· Use a broad spectrum soil-applied herbicide with other sites of action as a foundation in a weed control program.

· Utilize sequential applications of herbicides with alternative sites of action.

· Rotate the use of this product with non-Group 14 or 3 herbicides.

• Avoid making more than two applications of F7488-1 and any other Group 14 or 3 herbicides within a single growing season unless mixed with an herbicide with a different site of action with an overlapping spectrum for the difficult-to-control weeds.

. Incorporate non-chemical weed control practices, such as mechanical cultivation, crop rotation, cover crops and weed-free crop seeds, as part of an integrated weed control program.

· Use good agronomic principles that enhance crop development and crop competitiveness.

• Thoroughly clean plant residues from equipment before leaving fields suspected to contain resistant weeds.

· Manage weeds in and around fields, during and after harvest to reduce weed seed production.

## **PRODUCT INFORMATION**

- 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 (½" 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.

## **APPLICATION INSTRUCTIONS**

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 the Maximum Use Rate Table. 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

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

#### **Mechanism of Action**

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

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
Sandy loam	Loam	Clay loam
	Silt loam	Clay
	Silt	

# APPLICATION INFORMATION

## **Ground Application**

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. When tank mixed with a contact burndown herbicide, ground applicators must use a minimum spray volume of 15 gallons per acre. 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.

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

## **Aerial Application**

Aerial application is allowed only when environmental conditions prohibit ground application. Use nozzle types and arrangements that will provide optimum coverage while producing a minimal amount of fine droplets. Apply sufficient spray volume to achieve adequate coverage. When this product is allowed to be applied by air, applicator must use a minimum finished spray volume of 5 gallons per acre. The maximum release height must be 10 feet from the top of the canopy, unless a greater application height is required for pilot safety.

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

These 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 <sup>3</sup>/<sub>4</sub> the length of the wingspan or rotor.

2. Nozzles must always point backward parallel with the air stream and never be pointed downwards more than 45 degrees.

3. Observe the regulations of the State where applications are made.

4. Applicators must observe and abide by the requirements of the Aerial Drift Reduction Advisory.

## SPRAY DRIFT

## Aerial Applications:

• Do not release spray at a height greater than 10 ft above the crop canopy, unless a greater application height is necessary for pilot safety.

- Applicators are required to use a medium or coarser droplet size (ASABE S572.1).
- Select coarse to very coarse droplet size when Sulfentrazone is used as a preemergent/preplant application

• Do not apply when wind speeds exceed 15 mph at the application site. If the wind speed is greater than

10 mph, the boom length must not exceed 65% of the wingspan for fixed wing aircraft or 75% of the rotor diameter for helicopters. Otherwise, the boom length must not exceed 75% of the wingspan for fixed wing aircraft or 90% of the rotor diameter for helicopters.

•Select medium to very coarse droplet size when Sulfentrazone is used postemergence with a contact burndown herbicide.

•Do not apply as spray droplets smaller than medium to coarse (defined by the ASABE\* standard).

- Applicators must use 1/2 swath displacement upwind at the downwind edge of the field.
- Nozzles must be oriented so the spray is directed toward the back of the aircraft.
- Do not apply during temperature inversions

•When this product is allowed to be applied by air, applicator must use a minimum finished spray volume of 5 gallons per acre

## Ground Boom Applications:

Applicators must only apply with the nozzle height recommended by the manufacturer, but no more than 3 feet above the ground or crop canopy.

- Applicators are required to use a medium or coarser droplet size (ASABE S572.1).
- Do not apply when wind speeds exceed 15 miles per hour at the application site.
- Do not apply during temperature inversions.

## **Boom-less Ground Applications:**

• Applicators are required to use a Medium or coarser droplet size (ASABE S572.1) for all applications.

- Do not apply when wind speeds exceed 15 miles per hour at the application site.
- · Do not apply during temperature inversions.

## SPRAY DRIFT ADVISORIES

THE APPLICATOR IS RESPONSIBLE FOR AVOIDING OFF-SITE SPRAY DRIFT. BE AWARE OF NEARBY NON-TARGET SITES AND ENVIRONMENTAL CONDITIONS

### IMPORTANCE OF DROPLET SIZE

An effective way to reduce spray drift is to apply large droplets. Use the largest droplets that provide target pest control. While applying larger droplets will reduce spray drift, the potential for drift will be greater if applications are made improperly or under unfavorable environmental conditions.

### **Controlling Droplet Size – Ground Boom**

• Volume - Increasing the spray volume so that larger droplets are produced will reduce spray drift. Use the highest practical spray volume for the application. If a greater spray volume is needed, consider using a nozzle with a higher flow rate.

• Pressure - Use the lowest spray pressure recommended for the nozzle to produce the target spray volume and droplet size.

• Spray Nozzle - Use a spray nozzle that is designed for the intended application. Consider using nozzles designed to reduce drift.

### Controlling Droplet Size – Aircraft

• Adjust Nozzles - Follow nozzle manufacturers recommendations for setting up nozzles. Generally, to reduce fine droplets, nozzles should be oriented parallel with the airflow in flight.

## **BOOM HEIGHT – Ground Boom**

For ground equipment, the boom should remain level with the crop and have minimal bounce.

## **RELEASE HEIGHT - Aircraft**

Higher release heights increase the potential for spray drift.

## SHIELDED SPRAYERS

Shielding the boom or individual nozzles can reduce spray drift. Consider using shielded sprayers. Verify that the shields are not interfering with the uniform deposition of the spray on the target area.

## **TEMPERATURE AND HUMIDITY**

When making applications in hot and dry conditions, use larger droplets to reduce effects of evaporation.

## TEMPERATURE INVERSIONS

Drift potential is high during a temperature inversion. Temperature inversions are characterized by increasing temperature with altitude and are common on nights with limited cloud cover and light to no wind. The presence of an inversion can be indicated by ground fog or by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing. Avoid applications during temperature inversions.

## WIND

Drift potential generally increases with wind speed. AVOID APPLICATIONS DURING GUSTY WIND CONDITIONS.

Applicators need to be familiar with local wind patterns and terrain that could affect spray drift.

#### Boom-less Ground Applications:

· Setting nozzles at the lowest effective height will help to reduce the potential for spray drift.

#### Handheld Technology Applications:

· Take precautions to minimize spray drift.

#### Chemigation Application

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 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

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

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

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

Dry fertilizer rate	Fluid Ounces F7	Fluid Ounces F7488-1 per ton of fertilizer		
per acre	F748	F7488-1 Use Rate Per Acre		
lb/A	30 fl oz / A	40 fl oz / A	80 fl oz / A	
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** 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

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.

## **MAXIMUM ALLOWABLE F7488-1 USE PER ACRE PER 12** MONTH PERIOD\*

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

Crop	F7488-1	lb ai/A	lb ai/A
-	fl oz/A	Sulfentrazone	Pendimethalin
Corn	77	0.21	1.89
Peanuts	60	0.16	1.47
Potatoes	58	0.16	1.43
Soybeans	45	0.12	1.12
Sugarcane	137	0.375	3.37
Sunflowers	58	0.16	1.43
Tobacco	40	0.11	0.98
Dry Beans	58	0.16	1.43
& Peas			
Mint	77	0.21	1.89

\*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

The following Table 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\***

Сгор	Interval (Months)
Alfalfa	12
Barley	4*
Cabbage	20
Canola	24
Cereal Grains (, Oats, Pearl Millet, Proso Millet, Teosinte, Wild Rice)	12
Corn, Field	10
Corn, Pop	18
Corn, Sweet	18
Cotton	18
Dry Shell Peas and Beans	Anytime
Horseradish	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.

## BAND TREATMENT APPLICATIONS

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

Band Width Inches	V	Broadcast	_	Band Rate
Row Width Inches	~	Rate Per Acre	-	Danu Rate
Band Width Inches	V	Broadcast Volume Per		Band Volume
Row Width Inches	^	Acre	-	Band Volume

## MIXING AND LOADING INSTRUCTIONS

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

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 of flush equipment on or near desirable trees or plants.

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

## **REPLANTING INSTRUCTIONS**

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)

F7488-1 Use Rate(Corn) Preemergence Applications				
Broadcast Rate	fl oz/A F7488-1			
	Soil Texture			
% Organic Matter	<u>Coarse</u>	<u>Medium</u>	<u>Fine</u>	
<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)

Apply F7488-1 after planting and up to 3 days after planting (Table above). 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 Application Instructions,

#### Restrictions

Do not apply more than 77 fl oz/A of F7488-1 (0.21 lb ai sulfentrazone and 1.89 lb ai pendimethalin) per twelvemonth 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.

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

## PEANUTS

## For Use Only in AL, GA, MS, NC, SC, and VA.

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 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 ground or 5 gallons of to the broadcast rate.

### Preplant incorporated: Apply F7488-1 up to 14 days prior to planting and incorporate.

**Preemergence:** Apply F7488-1 at planting or within 12 hours after planting. Apply preemergence to peanuts grown under overhead irrigation. 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

F7488-1 Use Rate (Peanuts)				
Preemerge	Preemergence and Preplant Incorporation Application			
Broadcast Rate		fl oz/A F7488-1		
		Soil Texture		
% Organic Matter	<u>Coarse</u>	<u>Medium</u>	<u>Fine</u>	
<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, and Georgia.

#### When applied, as directed, at 38 fl oz/A, 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, lvyleaf
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 Application Instructions, 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/A of F7488-1 (0.16 lb ai sulfentrazone and 1.47 lb ai pendimethalin) per twelvemonth 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

F7488-1 Use Rate (Potatoes)				
	Preemergence	Application		
Broadcast Rate		fl oz/A F7488-1		
		Soil Texture		
% Organic	Coarse Medium Fine			
Matter				
<1.5	29	38	48-58	
1.5-3.0	29	38	58	
>3	29	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**

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 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**

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 Application Instructions, 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 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/A of F7488-1 (0.16 lb ai sulfentrazone and 1.43 lb ai pendimethalin) per twelvemonth 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

F7488-1 Use Rate			
Fall, Spring	Fall, Spring Early Preplant, Preemergence, and Preplant		
	Incorporated A	pplications	
Broadcast Rate	FI Oz F7488-1 per acre		
	Soil Texture		
% Organic	Coarse Medium Fine		
Matter			
<1.5	29.0	36-38	45
1.5-3	29.0	38	45
>3	29.0	38	45
Refer to the previo	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 matt	er. DO NOT exc	ceed 40.5 fl oz/A	F7488-1 for
southern states.			

## Ground and Aerial Applications

Apply F7488-1 in conventional tillage, conservation tillage, reduced tillage or no-tillage cropping systems using rates in the F7488-1 Use Rate Table above. 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

F7488-1 can be applied prior to planting or up to 2 days after planting. When applications after planting are delayed greater than 2 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 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

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 production systems. Fail 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 90 and after 0 and 15 interstate 90 and 15 interstate 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-Bethleham
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 45 fl oz/A of F7488-1 (0.12 lb ai sulfentrazone and 1.12 lb ai pendimethalin) per twelvemonth 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.

Do not make more than one application per crop season.

Do not use in California.

Do not apply within 85 days of harvest.

## SUGARCANE

F7488-1 Use Rate (Sugarcane)			
	Planting Time Applications		
Broadcast Rate		fl oz/A F7488-1	
		Soil Texture	
% Organic	Coarse Medium Fine		
Matter			
<1.5	80	80	96
1.5-3	80	96	120
>3	96	120	120
This rate table is for	This rate table is for all States except Hawaii		
Refer to the previo	Refer to the previous information on soil types under the COARSE,		
MEDIUM, and FINE categories			
For soils with pH >	For soils with pH >7.2 use the lowest rate for that specific soil texture		
and organic matte	latter.		
Florida Muck soils and Hawaii use up to 137 fl oz/A			

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 above for specific use information.

## **Planting Time Applications**

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**

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
Itcharass	

### 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/A of F7488-1 (0.375 lb ai sulfentrazone and 3.37 lb ai pendimethalin) per twelvemonth 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**

F7488-1 Use Rate (Sunflowers)			
Spring Preer	Spring Preemergence, and Spring Preplant Incorporated		
	Applicat		
Broadcast Rate		fl oz/A F7488-1	
	Soil Texture		
% Organic	Coarse Medium Fine		
Matter			
<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 >	ith pH >7.2 use the lowest rate for that specific soil texture		
and organic matter.			

### Spring Preemergence

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. 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 (½" 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)

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:

*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/A. Under these conditions plan to use a labeled POST herbicide for improved control.

#### Precautions

Plant sunflowers1.5" 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 Application Instructions, 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/A of F7488-1 (0.16 lb ai sulfentrazone and 1.43 lb ai pendimethalin) per twelvemonth 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)

F7488-1 Use Rate (Tobacco)				
Preplant Incorporated Applications   Application fl oz/A F7488-1   Rate Preplant Incorporated Applications				
	Soil Texture			
% Organic Matter	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.

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. 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)

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 lightly preplant incorporated from 14 days to 12 hours prior to transplanting.

## Bedded (Fields where raised beds ARE formed PRIOR to transplanting)

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 rebed. 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 p	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 Application Instructions, 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 40 fl oz/A of F7488-1 (0.11 lb ai sulfentrazone and 0.98 lb ai pendimethalin) per twelve-month period which is considered to begin upon the initial F7488-1 application.

Do not incorporate greater than 2 inches deep.

Do not apply as a broadcast spray as contact may cause malformed tobacco leaves.

## 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

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.

F7488-1 Use Rate (Dry Shelled Beans)			
	t and Spring Preplant Incorporated Applications		
Broadcast Rate	fl oz/A F7488-1		
		Soil Texture	
% Organic Matter	Coarse	Medium	Fine
<1.5	23-28	30-38	30-45
1.5-3.0	28	38	45-58
>3	28	38	58
For soils with pH > and organic matte	MEDIUM, and FINE categories For soils with pH >7.2 use the lowest rate for that specific soil texture and organic matter.		
	F7488-1 Use Rate (Dry Shelled Peas) Fall Preplant and Spring Preplant Incorporated Applications		
Broadcast Rate	fl oz/A F7488-1		
		Soil Texture	
% Organic Matter	Coarse	Medium	Fine
<1.5	22.5-28	30-38	30-45
1.5-3.0	28	38	45-58
>3	28	38	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)

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 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.

## Preplant Incorporated (PPI)

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. 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 Tables above for the soil texture, organic matter, and pH level.

#### Weeds Controlled:

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

The applied decording to an oblicit	
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 ( $\frac{1}{2"}$  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 Application Instructions, 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

Do not apply more than 58 fl oz/A of F7488-1 (0.16 lb ai sulfentrazone and 1.43 lb ai pendimethalin) per twelvemonth 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 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.

Do not apply more than one application per crop season.

Do not use in California.

## OIL CROPS MINT (Peppermint and Spearmint)

F7488-1 Use Rate (Mint) Dormant Applications				
Broadcast Rate	fl oz/A F7488-1			
	Soil Texture			
% Organic	Coarse	Medium	Fine	
Matter				
<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				

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**

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 decording to directions, 17400-1 will provide con			
	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		

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

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 ( $\frac{1}{2}$ " 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 Application Instructions, 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 77 fl oz/A of F7488-1 (0.21 lb ai sulfentrazone and 1.89 lb ai pendimethalin) per twelvemonth 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.

## STORAGE AND DISPOSAL

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 after the flow begins to drip. Repeat this procedure two more times (or equivalent). Then offer for recycling if available, or reconditioning, or puncture and dispose of in a sanitary landfill, or incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

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

# CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY

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

The Directions for Use of this product must be followed carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Crop injury, ineffectiveness, or other unintended consequences may result because of such factors as manner of use or application, weather or crop conditions beyond the control or FMC or Seller. 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.

## LABEL TRACKING INFORMATION

Label Code: D-4063MSTR 050520 Replaces Label Code: 02-09-12



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