



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY  
AND POLLUTION PREVENTION

July 13, 2023

Cristina Rodriguez  
Senior Product Registration Manager  
FMC Corporation  
2929 Walnut Street  
Philadelphia, PA 19104

Subject: Registration Review Label Mitigation for Sulfentrazone  
Product Name: F6482 45DF Herbicide  
EPA Registration Number: 279-3340  
Application Dates: November 20, 2018  
Decision Numbers: 592784

Dear Cristina 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 Sulfentrazone Interim Decision, 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 stamped copy of your labeling is enclosed for your records. This labeling supersedes all previously accepted labeling. You must submit one copy of the final printed labeling before you release the product for shipment with the new labeling. In accordance with 40 CFR 152.130(c), you may distribute or sell this product under the previously approved labeling for 12 months from the date of this letter. After 12 months, you may only distribute or sell this product if it bears this new revised labeling or subsequently approved labeling. "To distribute or sell" is defined under FIFRA section 2(gg) and its implementing regulation at 40 CFR 152.3.

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If you have any questions about this letter, please contact Jaclyn Pyne via email at [pyne.jaclyn@epa.gov](mailto:pyne.jaclyn@epa.gov).

Sincerely,

A handwritten signature in blue ink, appearing to be "Linda Arrington".

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

Enclosure

<b>SULFENTRAZONE</b>	<b>GROUP</b>	<b>14</b>	<b>HERBICIDE</b>
<b>METRIBUZIN</b>	<b>GROUP</b>	<b>5</b>	<b>HERBICIDE</b>

# F6482

45DF Herbicide

## Flexi-crop™ Advantage

*Maximum Flexibility to plant corn or soybean in the spring*

**For Use on Asparagus, Field Corn (Grain, seed corn, forage and silage), Potato, Soybeans, Sugarcane and Tomato**

**The Registrant Intends That This Product Be Used Only By Individuals/Firms Certified as Licensed Pesticide Applicators**

EPA Reg. No. 279-3340

EPA Est. 279 – \_\_\_\_\_

Active Ingredient:	By Weight
Sulfentrazone* .....	18%
Metribuzin** .....	27%
Other Ingredients .....	55%
	100%

F6482 45DF Herbicide contains 0.45 pounds active ingredient per pound: 0.18 pounds sulfentrazone and 0.27 pounds metribuzin,

\* N-[2,4 dichloro-5-[4-(difluoromethyl)-4,5-dihydro-3-methyl-5-oxo-1H-1,2,4-triazol-1-yl]phenyl]methanesulfonamide

\*\* 4-amino-6-(1,1-dimethylethyl)-3-(methylthio)-1,2,4-triazin-5(4H)-one

## KEEP OUT OF REACH OF CHILDREN CAUTION

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

### FIRST AID

**If 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 further treatment advice.

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

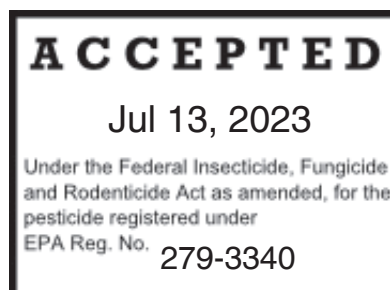
**For Emergency Assistance Call (800) 331-3148**

Have the product container or label with you when calling the poison control center or doctor, or going for treatment.

**Net Contents:**

FROM **FMC**

FMC Corporation  
2929 Walnut Street  
Philadelphia, PA 19104



## PRECAUTIONARY STATEMENTS

### Hazards to Humans and Domestic Animals

#### Caution

Causes moderate eye irritation. Harmful if inhaled, swallowed, or absorbed through the skin. Avoid breathing vapor or spray mist. Avoid contact with skin, eyes, or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco. Remove and wash contaminated clothing before reuse.

#### Personal Protective Equipment (PPE)

Applicators, mixers, loaders, and other pesticide handlers must wear:

Long-sleeved shirt and long pants.

Chemical-resistant gloves made of any waterproof material such as polyethylene or polyvinyl chloride.

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 separate from other laundry.

#### User Safety Recommendations:

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- 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

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

Groundwater 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.

**Do not use on coarse soils classified as sand, which have less than 1.0% organic matter.**

Surface water advisory: F6482 45DF Herbicide can contaminate surface water through spray drift. Under some conditions, F6482 45DF Herbicide may also have a high potential for runoff into surface water (primarily via dissolution in runoff water), for several to many months post-application. These include poorly draining or wet soils with readily visible slopes toward adjacent surface waters, frequently flooded areas, areas overlying extremely shallow groundwater, areas with in-field canals or ditches that drain to surface water, areas not separated from adjacent surface waters with vegetated filter strips, and areas over-lying tile drainage systems that drain to surface waters.

## Physical/Chemical Hazards

Do not use or store near heat or open flame.

## DIRECTIONS FOR USE

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

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

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

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

## AGRICULTURAL USE REQUIREMENTS

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

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

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

F6482 45DF Herbicide which contains the active ingredients sulfentrazone and Metribuzin is a group 14 and 5 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 F6482 45DF Herbicide 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 and 5 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 and 5 herbicides.
- Avoid making more than two applications of F6482 45DF Herbicide and any other Group 14 and 5 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

F6482 45DF Herbicide is a dry flowable formulation to be mixed with water and sprayed for selective preemergence or preplant incorporated weed control in asparagus, field corn (grain, seed corn, forage and silage), potato, soybeans, sugarcane and transplanted tomatoes. When applied according to the instructions on this label, F6482 45DF Herbicide will control listed broadleaf, and sedge weeds, and provide grass suppression

The mode of action of F6482 45DF Herbicide involves uptake by weed roots and shoots. Preemergence and preplant incorporated applications of F6482 45DF Herbicide require rainfall or irrigation to activate the herbicide. The amount of rainfall or irrigation required for activation following application depends on existing soil moisture, organic matter content and soil texture. If adequate moisture (1/2" to 1") is not received within 7 to 10 days after the F6482 45DF Herbicide treatment, a shallow cultivation may be needed to obtain desired weed control. When sufficient moisture is received after dry conditions, F6482 45DF Herbicide will provide control of susceptible germinating weeds.

**Proper handling instructions:** This product may not be mixed or loaded within 50 feet of any wells (including abandoned wells and drainage wells), sink holes, perennial or intermittent streams and rivers, and natural or impounded lakes and reservoirs. This setback does not apply to properly capped or plugged abandoned wells and does not apply to impervious pads or properly diked mixing/loading areas. Operations that involve mixing, loading rinsing, or washing of this product into or from pesticide handling or application equipment or containers within 50 feet of any well are prohibited unless conducted on an impervious pad constructed to withstand the weight of the heaviest load that may be positioned on or moved across the pad. Such a pad shall be designed and maintained to contain any product spills or equipment leaks, container or equipment rinse or washwater, and rainwater that may fall on the pad. Surface water shall not be allowed to either flow over or from the pad, which means the pad must be self contained. The pad shall be sloped to facilitate material removal. An unroofed pad shall be of sufficient capacity to contain at a minimum 110% of the capacity of the largest pesticide container or application equipment on the pad. A pad that is covered by a roof of sufficient size to completely exclude precipitation from contact with the pad shall have a minimum containment capacity 100% 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 operation containment.

## PRODUCT APPLICATION INFORMATION

F6482 45DF Herbicide is labeled for use on asparagus, field corn (grain, seed corn, forage, and silage), potato, soybeans, sugarcane, and transplanted tomatoes. DO NOT use on any other crops.

### Ground Application

Utilize a boom and nozzle sprayers equipped with the appropriate nozzles, and screens and adjusted to provide optimum spray distribution and coverage at the appropriate operating pressures. Utilize nozzles that produce minimal amounts of fine spray droplets to avoid spray drift or inadequate foliar and soil coverage. Apply a minimum of 10 gallons of finished spray per acre. Be aware that overlaps and slower ground speeds while starting, stopping, or turning while spraying may result in excessive application and subsequent response. Select nozzles and application pressure that deliver medium to coarse or larger spray droplets as indicated in the nozzle manufacturer's recommendations and in accordance with ASABE Standard S-572. Select coarse to very coarse droplet size when used as a preemergent/preplant application. Select medium to very coarse droplet size when used with a contact burndown herbicide. Do not apply as spray droplets smaller than medium to coarse (defined by the ASABE standard).

Sprayer must be accurately calibrated before application. Check sprayer during application to be sure it is working properly.

Water or liquid fertilizer must be used as the carrier for F6482 45DF Herbicide, when applied alone, or when tank mixed with other soybean or sugarcane herbicides. A jar test for compatibility of liquid fertilizer and F6482 45DF Herbicide tank mix is recommended if the compatibility of the liquid fertilizer and F6482 45DF Herbicide is unknown.

Continuous agitation during application is required. Avoid overlap. Shut off spray booms while turning, slowing, or stopping, as over application may result. Do not store the sprayer overnight or for any extended period of time with the F6482 45DF Herbicide spray mixture remaining in the tank.

### SOYBEAN TOLERANCE

F6482 45DF Herbicide has been tested on a number of soybean cultivars, however, it has not been tested on all soybean varieties. The vast majority of cultivars tested when used according to label guidelines have demonstrated tolerance to F6482 45DF Herbicide. A limited number of soybean cultivars have shown some level of injury when used according to label guidelines and should not be planted when an F6482 45DF Herbicide program is planned.

**Do not use F6482 45DF Herbicide on the following soybean varieties:** Altona, AP55, AP 71, Asgrow 6520, Burlison, Coker 102, Coker 156, Dassel, GL 3202, Govan, Maple Amber, NB 3665, NKS 1884, Paloma 350, Portage, Regal, Semmes, Terra-Vig 505, Terra-Vig 606, Tracy, Vansoy, and Vinton 81. For further information regarding soybean tolerance to an F6482 45DF Herbicide treatment consult University or Extension weed management specialists for additional information on specific local varieties or cultivars and any other pertinent information on F6482 45DF Herbicide under specific local conditions prior to applying product.

If cool/cold weather or heavy rainfall occurs immediately following an F6482 45DF Herbicide application, soybean stunting or stand loss could occur. Yields have not been affected where early season stunting has occurred. Injury to soybeans can also occur under the following conditions: (1) excessive rate for soil type, (2) boom overlap, (3) improper sprayer calibration, (4) error in mixing procedures, (5) when soils have a calcareous surface area or pH greater than 7.5, (6) soil incorporation deeper than specified, (7) when applied with organophosphate pesticides, (8) when heavy rains occur after application, especially in poorly drained areas, (9) when soybeans are planted less than 1 1/2 inches deep, (10) on any soil with less than 0.5% organic matter.

### Aerial Application

#### Use Restrictions

Aerial application is allowed only when environmental conditions prohibit ground application. When this product is 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  $\frac{3}{4}$  the length of the wingspan or rotor.
2. Nozzles must always point backward parallel with the air stream and never be pointed downwards more than 45 degrees.
3. Observe the regulations of the State where applications are made.
4. Applicators must observe and abide by the requirements of the Aerial Drift Reduction Advisory.

### SPRAY DRIFT ADVISORIES

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

#### Information on Droplet Size

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

### Controlling Spray Droplet Size

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

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

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

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

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

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

**Boom Length** – For some aerial use patterns, reducing the effective boom length to less than 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. Applicators may spray only when wind speed is between 3 and 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 F6482 45DF Herbicide

Drift of spray mixtures containing F6482 45DF Herbicide must be prevented. Observation of the preceding environmental conditions, correct application equipment design, calibration and application practices will significantly diminish the risk of off-target spray drift. F6482 45DF Herbicide can cause significant symptomology by drift onto sensitive crops and other plants. This symptomology may manifest initially as discreet, localized spots where contacted by F6482 45DF Herbicide drift mixtures. Depending on concentration of the spray solution and droplets size (effectively determining the dosage of sulfentrazone) and also depending on the inherent sensitivity of the plants involved, these spots or lesions may or may not coalesce. These effects will usually not have lasting effects on plant growth, but will likely reduce the value of affected fruit or foliage where grade or quality are 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 F6482 45DF Herbicide onto 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 F6482 45DF Herbicide.

## BAND TREATMENT APPLICATIONS

For band treatments, apply the broadcast equivalent rate and volume per treated 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 & LOADING INSTRUCTIONS

It is important that spray equipment is clean and free of existing pesticide deposits before applying F6482 45DF Herbicide. Follow the spray tank cleanout procedures specified on the label of product previously applied before adding F6482 45DF Herbicide to the tank. For best results, fill spray tank with one half the volume of clean water or liquid fertilizer solution needed for the field to be treated. Start agitation system. When mixing F6482 45DF Herbicide in a spray tank with anything other than clean water (fertilizer, previous herbicide mixtures, etc.), F6482 45DF Herbicide should be slurried in a separate container with clean water before being added to the spray tank.

Slowly add the 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. Refer to **RATE TABLE 1** (conventional soybeans) or **RATE TABLE 2** for (reduced rate soybeans) for the proper application rate. Make sure F6482 45DF Herbicide is thoroughly mixed before application or before adding another product to the spray tank.

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

Apply F6482 45DF Herbicide spray mixtures immediately after mixing. Do not store mixture. Do not store the sprayer overnight or for any extended period of time with F6482 45DF Herbicide spray mixture remaining in the tank. If F6482 45DF Herbicide was tank mixed with other soybean or sugarcane herbicides, all additional directions, restrictions, and precautions for the additional herbicides must also be followed.

## SPRAYER EQUIPMENT CLEAN-OUT

As soon as possible after spraying F6482 45DF Herbicide and before using sprayer equipment for any other applications, the sprayer must be thoroughly cleaned to avoid potential crop effects 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 F6482 45DF Herbicide as required on the other product labels.

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 nozzles 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 nozzles 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 F6482 45DF Herbicide spray solution remaining in the tank, spray lines, spray boom plumbing, spray nozzles or strainers.

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

Should small quantities of F6482 45DF Herbicide remain in inadequately cleaned mixing, loading and/or spray equipment, they may be released during subsequent applications potentially causing effects to certain crops and other vegetation. FMC accepts no liability for any effects due to inadequately cleaned equipment.

Do not drain 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.

## WEEDS CONTROLLED

Use Restrictions:

This product, F6482 45 DF Herbicide, may only be used in accordance with the Product Application information and the specific crop use directions, F6482 45DF Herbicide applied alone or in specified tank mixtures will provide control of the following weeds. Refer to the specific crop section.

BROADLEAVES	
Common Name	Scientific Name
Amaranth, Palmer	<i>Amaranthus Palmeri</i>
Amaranth, Spiny	<i>Amaranthus spinosus</i>
Anoda, spurred	<i>Anoda cristata</i>
Beggarweed, Florida	<i>Desmodium tortuosum</i>
Carpetweed	<i>Mollugo verticillata</i>
Copperleaf, hophornbeam	<i>Acalypha ostryifolia</i>
Croton, tropic	<i>Croton glandulosus</i>



Daisy, American	<i>Eclipta alba</i>
Galinsoga, hairy	<i>Galinsoga ciliata</i>
Groundcherry, clammy	<i>Physalis heterophylla</i>
Groundcherry, cutleaf	<i>Physalis angulata</i>
Jimsonweed	<i>Datura stramonium</i>
Kochia	<i>Kochia scoparia</i>
Ladysthumb	<i>Polygonum persicaria</i>
Lambsquarters, common	<i>Chenopodium album</i>
Morningglory, entireleaf	<i>Ipomoea integruscula</i>
Morningglory, ivyleaf	<i>Ipomoea hederacea</i>
Morningglory, palmleaf	<i>Ipomoea wrightii</i>
Morningglory, purple	<i>Ipomoea turbinata</i>
Morningglory, red	<i>Ipomoea coccinea</i>
Morningglory, smallflower	<i>Jacquemontia tamnifolia</i>
Morningglory, tall	<i>Ipomoea purpurea</i>
Nightshade, eastern black	<i>Solanum ptycanthum</i>
Nightshade, hairy	<i>Solanum sarrachoides</i>
Nightshade, silverleaf	<i>Solanum elaeagnifolicum</i>
Pigweed, redroot	<i>Amaranthus retroflexus</i>
Pigweed, smooth	<i>Amaranthus hybridus</i>
Poorjoe	<i>Diodia teres</i>
Purslane, common	<i>Portulaca oleracea</i>
Senna, coffee	<i>Cassia occidentalis</i>
Sida, prickly (Teaweed)	<i>Sida spinosa</i>
Smartweed, Pennsylvania	<i>Polygonum pennsylvanicum</i>
Smell melon	<i>Cucumis melo</i>
Spurge, spotted	<i>Euphorbia maculata</i>
Starbur, bristly	<i>Acanthospermum hispidum</i>
Velvetleaf	<i>Abutilon theophrasti</i>
Waterhemp, common	<i>Amaranthus rudis</i>
Waterhemp, tall	<i>Amaranthus tuberculatos</i>

**GRASSES (Suppression Only)**

Common Name	Scientific Name
Broadleaf signalgrass	<i>Brachiaria platyphylla</i>
Crabgrass, large	<i>Digitaria sanguinalis</i>
Crabgrass, smooth	<i>Digitaria ischaemum</i>
Goosegrass	<i>Eleusine indica</i>
Johnsongrass, seedling	<i>Sorghum halepense</i>
Orchardgrass	<i>Dactylis glomerata</i>
Panicum, fall	<i>Panicum dichotomiflorum</i>
Panicum, Texas	<i>Panicum texanum</i>

**SEDGES\***

Common Name	Scientific Name
Nutsedge, purple	<i>Cyperus rotundus</i>
Nutsedge, yellow	<i>Cyperus esculentus</i>
Sedge, annual	<i>Cyperus compressus</i>

Use rates from Table 2 will provide suppression only

**For winter annual weeds, such as those listed below, and/or other emerged weeds, add the appropriate rate of Rage™, Rage™ D-tech, 2,4-D, or glyphosate-based product to F6482 45DF Herbicide applications.**

Chickweed, common	<i>Stellaria media</i>
Deadnettle, purple	<i>Lamium purpureum</i>
Field Pennycress	<i>Thlaspi arvense</i>
Henbit	<i>Lamium amplexicaule</i>
Marestail	<i>Hippuris vulgaris</i>
Mustard spp.	<i>Brassica spp.</i>
Prickly Lettuce	<i>Lactuca serriola</i>
Shepherd's purse	<i>Capsella bursa pastoris</i>
Speedwell spp.	<i>Veronica spp.</i>
Virginia Pepperweed	<i>Lepidium virginicum</i>

## ROTATIONAL CROP RESTRICTIONS

Crop	Recropping Interval (Months)
Alfalfa	12
Asparagus	12
Barley	4
Canola	24 <sup>(3)</sup>
Cotton	18 <sup>(3)</sup> , 12 <sup>(5)</sup>
Dry Beans	12
Field Corn <sup>1</sup>	Anytime
Peanuts	12
Potatoes	12
Rice	10
Sorghum	18, 12 <sup>(2)</sup>
Soybean	Anytime
Sugar Beets	24 <sup>(3)(4)</sup>
Sugarcane	Anytime
Sunflower	12
Sweet Corn	18 <sup>(3)</sup>
Tobacco	12
Tomatoes (transplanted only)	Anytime
Wheat	4
Any crop not listed	18 <sup>(3)</sup>

<sup>1</sup> Field Corn includes corn grown for grain, forage or silage, and seed corn.

<sup>2</sup> Sorghum may be planted after 12 months where F6482 45DF Herbicide was applied at 20 oz/acre or less in the previous cropping season.

<sup>3</sup> Crops that have rotational intervals greater than 12 months after an F6482 45DF Herbicide application are the result of crop injury concerns.

<sup>4</sup> A rotation interval of 24 months is allowed with a successful Bioassay.

<sup>5</sup> Cotton may be planted after 12 months where F6482 45DF Herbicide was applied at rates 17 oz/acre or less and meets the following conditions:

- Medium and fine soils
- pH <7.2
- Rainfall or irrigation must exceed 15" after application of F6482 45DF Herbicide to rotate to cotton

## SOIL CLASSIFICATION CHART

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

## ASPARAGUS

F6482 45DF Herbicide Use Rate Table (Asparagus)			
Spring Preemergence Applications			
Broadcast Rate	oz/A (lb ai/A)		
	Soil Texture		
% Organic Matter	Coarse	Medium	Fine
<1.5	12.5(0.35)-16.7(0.47)	16.7(0.47)-22.2(0.63)	22.2(0.63)
1.5-3	16.7(0.47)-22.2(0.63)	22.2(0.63)-28.1(0.79)	28.1(0.79)
>3.0	22.2(0.63)-28.1(0.79)	28.1(0.79)-33.3(0.94)	33.3(0.94)
Refer to the use rate information on soil types under the COARSE, MEDIUM, and FINE categories.			
Use higher rates for soils of pH less than 7.0 and lower rates for pH greater than 7.0 within the rate range.			

Apply F6482 45DF Herbicide as a broadcast treatment to crowns established for one or more years.

Apply in the spring before the crop and weeds emerge. Apply F6482 45DF Herbicide at 12.5 to 33.3 oz/A in 10 to 40 gallons of finished spray per acre. F6482 45DF Herbicide may be applied with other pesticides registered for use with asparagus.

## Weeds Controlled

When Applied according to directions, F6482 45DF Herbicide will provide control of :

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

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

## PRECAUTIONS

These Crop Specific Use directions are based upon the interactive effects of F6482 45DF Herbicide (sulfentrazone and metribuzin) and the primary soil and environmental factors, which affect its activity on various weed species and tolerance among crops. The user is required to observe the instructions and guidance previously presented under Product Application Instructions, F6482 45DF Herbicide Product Use Rates, Rotational Crop Guidelines, Replanting Instructions, Weed Controlled and any other section of this label pertinent to the anticipated crop use. It is important to note that not all varieties or cultivars of a given crop species have been evaluated under treatment with F6482 45DF Herbicide. Consult university or extension weed management specialists for additional information on specific local varieties or cultivars and any other pertinent information on F6482 45DF Herbicide under specific local conditions.

## RESTRICTIONS

**Do not apply within 14 days prior to harvest.**

Aerial application is prohibited.

Do not apply more than a maximum single application of 33.3 oz/A of F6482 45DF Herbicide (0.37 lb ai/A sulfentrazone and 0.56 lb ai/A metribuzin).

Do not apply more than a maximum annual application of 33.3 oz/A of F6482 45DF Herbicide (0.37 lb ai/A sulfentrazone and 0.56 lb ai metribuzin/A).

Do not make more than one F6482 45DF Herbicide application per acre per 12-month period. The twelve-month period is considered to begin upon the initial F6482 45DF application.

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

## FIELD CORN (Grain, Seed Corn, forage and silage)

F6482 45DF Herbicide Use Rate Table (Corn) Fall, Spring Early Preplant, Preemergence, and Preplant Incorporated Applications			
Broadcast Rate	F6482 45DF Herbicide oz/A (lb ai/A)		
	Soil Texture		
% Organic Matter	Coarse	Medium	Fine
<1.5	5.0(0.14)-12.5(0.35)	8.3(0.23)-12.5(0.35)	10.4(0.29)-14.6(0.41)
1.5-3.0	8.3(0.23)-12.5(0.35)	10.4(0.29)-16.7(0.47)	12.5(0.35)-18.8(0.53)
>3	10.4(0.29)-14.6(0.41)	12.5(0.35)-18.8(0.53)	16.7(0.47)-22.2(0.63)

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

### Preplant (Fall Applications)

F6482 45DF Herbicide may be applied in the fall as a residual treatment prior to corn planting the following spring.

F6482 45DF Herbicide can be used alone or in a tank mixture with other herbicides to control susceptible broadleaves, sedges and grasses in corn. Apply F6482 45DF Herbicide in conventional tillage or conservation tillage (reduced tillage or no-tillage) cropping systems using rates specified. F6482 45DF Herbicide should be applied to the stubble or soil surface and allow moisture from rainfall or snow to move the product into the soil. Do not mechanically incorporate in the fall or spring as this operation can destroy the herbicide barrier allowing weed escapes to occur. Do not apply to frozen soils or existing snow cover to prevent F6482 45DF Herbicide runoff from rain or snowmelt that may occur following application. F6482 45DF Herbicide may be tank mixed with other burndown herbicides to control emerged weeds in the fall or residual soil herbicides that are labeled for fall use on corn. Select the correct F6482 45DF Herbicide use rate for corn for your soil type and organic matter. Due to the extended period of time between the fall application and corn planting, the use rate of F6482 45 DF Herbicide should be the mid to high rate within the rate range for the appropriate soil type and organic matter.

### Pre-Plant or Pre-Emergence (Spring Applications)

#### Field Corn

Apply F6482 45DF at 5 - 22.2 oz/A as a preplant or preemergence treatment control or suppression of grass, broadleaf, and sedge weeds including certain herbicide resistant weeds. Make pre-plant applications within 4 weeks prior to planting. Make pre-emergence applications from planting up to 3 days after planting, if seedlings have not broken the soil surface and the seed furrow is completely closed. Corn should be planted at least 2 inches deep. Applications shall be made with ground equipment in a minimum of 10 gallons of finished spray per acre or by aerial application in a minimum of 5 gallons of finished spray per acre.

If weeds are present, F6482 45DF should be tank mixed with a burndown herbicide such as Dicamba, Glyphosate, Paraquat, Rage D-Tech or other appropriate pre-plant or pre-emergence herbicides at the proper labeled rate. Refer to the tank mix partner product

labels for specific use directions, weed control claims, precautionary statements, and restrictions. Read and follow the most restrictive label in the tank mix for weed control.

Following an application of F6482 45DF, a postemergence application of atrazine, glyphosate, glufosinate, or other suitable herbicides is recommended for season long weed control. Refer to the tank mix partner product labels for specific use directions, weed control claims, precautionary statements, and restrictions. Read and follow the most restrictive label in the tank mix for weed control.

F6482 45DF Herbicide may be applied more than once preemergence to the same crop in split or sequential applications to provide season-long control of difficult-to-control existing or late emerging weeds.

### Preplant Incorporated

F6482 45DF Herbicide may be applied as a Preplant Incorporated treatment in the spring prior to planting in reduced and conventional tillage corn. F6482 45DF Herbicide should be shallowly incorporated or mixed thoroughly into the soil to a maximum depth of 2 inches using a correctly adjusted implement such as a field cultivator, field finisher or disk harrow. Incorporating F6482 45DF Herbicide deeper than 2 inches may result in inconsistent weed control. Use the appropriate rate for the soil texture, organic matter, and pH level of the soil. F6482 45DF Herbicide can be tank mixed with other soil-applied herbicides and insecticides labeled for preplant incorporation in corn. Observe all precautions, instructions, and rotational cropping guidelines of each product's label when tank mixing, including all references to potential carryover and crop injury warnings or restrictions.

### Aerial application

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

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

## PRECAUTIONS

These Crop Specific Use directions are based upon the interactive effects of F6482 45DF Herbicide (sulfentrazone and metribuzin) and the primary soil and environmental factors, which affect its activity on various weed species and tolerance among crops. The user is required to observe the instructions and guidance previously presented under Product Application Instructions, F6482 45DF Herbicide Product Use Rates, Rotational Crop Guidelines, Replanting Instructions, Weed Controlled and any other section of this label. It is important to note that not all varieties or cultivars of a given crop species have been evaluated under treatment with F6482 45 DF Herbicide. Consult university or extension weed management specialists for additional information on specific local varieties or cultivars and any other pertinent information on F6482 45DF Herbicide under specific local conditions.

## RESTRICTIONS

Do not apply more than a maximum single application of 22.2 oz/A of F6482 45DF Herbicide (0.25 lb ai/A sulfentrazone and 0.37 lb ai/A metribuzin).

Do not apply more than a maximum annual application of 22.2 oz/A of F6482 45DF Herbicide (0.25 lb ai/A sulfentrazone and 0.37 lb ai/A metribuzin).

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

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

Do not apply to frozen soils or existing snow cover to prevent F6482 45DF runoff from rain or snowmelt that may occur following application.

Do not use low-pressure and high volume hand wand equipment to apply F6482 45DF Herbicide.

## POTATOES

F6482 45DF Herbicide Use Rate Table (Potatoes)			
Preemergence Application			
Broadcast Rate	F6482 45DF Herbicide oz/A (lb ai/A)		
	Soil Texture		
% Organic Matter	Coarse	Medium	Fine
<1.5	8.3(0.23)-12.5(0.35)	8.3(0.23)-12.5(0.35)	10.4(0.29)-14.6(0.41)
1.5-3.0	8.3(0.23)-12.5(0.35)	10.4(0.29)-16.7(0.47)	12.5(0.35)-16.7(0.47)
>3	12.5(0.35)-16.7(0.47)	14.6(0.41)-18.8(0.53)	16.7(0.47)-22.2(0.63)
*Refer to the previous information on soil types under the COARSE, MEDIUM, and FINE categories Use higher rates for soils of pH less than 7.0 and lower rates for pH greater than 7.0 within the rate range.			

### Ground and Aerial Applications

Apply F6482 45DF Herbicide by aerial application as a preemergence treatment following planting and after drag-off, but prior to potato emergence. Optimum performance can be achieved if F6482 45DF Herbicide is applied to the soil surface and either rainfall or overhead irrigation is used to activate the product. If no moisture is received within 7 days following application in areas without irrigation, a shallow incorporation (less than 2 inches) may be needed prior to weed and potato emergence to activate the product. Select the appropriate use rate based on soil texture and organic matter. For control of emerged weeds at the time of the F6482 45DF Herbicide application, an appropriate burndown herbicide and adjuvants labeled for potatoes may be tank mixed with to control these weeds. Do not apply F6482 45DF Herbicide if the potatoes have emerged from the soil as undesirable crop response may occur. F6482 45DF Herbicide may be tank mixed with other soil-applied herbicides labeled for use in potatoes to improve weed management and increase weed control spectrum.

Apply F6482 45DF Herbicide in a minimum of 10 gallons of spray by ground application and 5 gallons of spray by air.

### Chemigation Applications

F6482 45DF Herbicide may be applied to potatoes through sprinkler irrigation systems including center pivot, lateral move, end tow, solid set or hand move irrigation systems. Apply F6482 45DF Herbicide prior to potato emergence using sufficient water (0.25 to 0.5 inch per acre) to provide thorough soil surface coverage, but to avoid runoff of irrigation water. F6482 45DF Herbicide may be applied with other products labeled for chemigation use in potatoes.

It is important to note that irrigation with highly alkaline water (high pH) following a F6482 45DF Herbicide soil application may significantly increase the amount of sulfentrazone available in soil solution. Irrigation with water having a pH greater than 7.5 could result in adverse crop response. This response will ultimately depend on initial F6482 45DF Herbicide application rate, application timing, amount and pH of irrigation water; the sensitivity of the crop and the crop growth stage when irrigated. The risk of adverse crop response will lessen with advances in the crop growth stage.

### Weeds Controlled

When applied according to directions, F6482 45DF Herbicide will provide control of:

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

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

### PRECAUTIONS

Potato varieties may vary in their response to herbicide applications. When using F6482 45DF Herbicide on an untested variety, always determine the crop tolerance before planting. Some potato varieties, including Sangre, Shepody and Snowden, have shown sensitivity to F6482 45DF Herbicide. Caution should be used when planting these varieties on marginal coarse soils.

These Crop Specific Use directions are based upon the interactive effects of F6482 45DF Herbicide (sulfentrazone) and the primary soil and environmental factors, which affect its activity on various weed species and tolerance among crops. The user is required to observe the instructions and guidance previously presented under Product Application Instructions, F6482 45DF Herbicide Product Use Rates, Rotational Crop Guidelines, Replanting Instructions, Weed Controlled and any other section of this label pertinent to the anticipated crop use. It is important to note that not all varieties or cultivars of a given crop species have been evaluated under treatment with F6482 45DF Herbicide. Consult university or extension weed management specialists for additional information on specific local varieties or cultivars and any other pertinent information on F6482 45DF Herbicide under specific local conditions.

### Restrictions

Use of low pressure and high volume wand equipment is prohibited.

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

Do not apply F6482 45DF Herbicide after potato emergence from the soil as undesirable crop response may occur.

Do not apply more than a maximum single application of 22.2 oz/A of F6482 45DF Herbicide (0.25 lb ai/A sulfentrazone and 0.37 lb ai/A metribuzin).

Do not apply more than a maximum annual application of 22.2 oz/A of F6482 45DF Herbicide (0.25 lb ai/A sulfentrazone and 0.37 lb ai/A metribuzin).

### SOYBEANS (Except in CA)

F6482 45DF Herbicide may be applied as a preemergence or preplant incorporated treatment for the control of weeds in soybeans as described in the following.

### APPLICATION INFORMATION

#### Ground Application

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

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

#### Aerial Application

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

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

## FALL APPLICATIONS

F6482 45DF Herbicide may be applied as a fall treatment to the stubble of harvested crops for the burndown of existing vegetation and preemergence control of labeled weeds the following spring in no-till and conservation tillage production systems. F6482 45DF Herbicide can be applied to the stubble of a harvested crop in no-till or to the soil surface of conservation tillage fields after harvest when the sustained soil temperature is 55 degrees F and falling at a soil depth of 4 inches. Apply after September 30 in those areas North of Interstate 90 and after October 15 in those areas North of Interstate 40. To obtain adequate weed control in all areas soils must have sustained temperature of 55 degrees F or lower. Applications to ridge till production systems must be made after the formation of ridges or beds.

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 must be made with a minimum of 15 gallons per acre to achieve adequate coverage of the weeds being treated. Gallonage should be increased where weed density is high or heavy crop residue levels are present. When making burndown applications to emerged weeds, the addition of adjuvants such as crop oil concentrate (COC) or methylated seed oil (MSO) to the spray mixture can be used to enhance the burndown activity of the application. If weeds are present at time of F6482 45DF Herbicide application apply with appropriate burndown herbicides for improved control of existing weeds. Refer to product labels for use rates and instructions. For F6482 45DF Herbicide application rates refer to **RATE TABLE 1** for standard rate programs and **RATE TABLE 2** for reduced rate programs in glyphosate and glufosinate tolerant soybean systems.

## SPRING APPLICATIONS

### EARLY PRE-PLANT

F6482 45DF Herbicide may be applied up to 30-45 days prior to planting (Early Preplant) in no-till or minimum till cropping systems. For applications earlier than 30 days prior to planting, the high rate in the rate range may be needed for extended residual control. F6482 45DF Herbicide provides limited burndown of small weeds. F6482 45DF Herbicide applied early pre-plant must be applied in combination with the appropriate burndown herbicide such as glyphosate, glufosinate, gramoxone, and/or 2,4-D to achieve acceptable control of existing weeds during application. The addition of crop oil concentrate at 1 quart per acre or non-ionic surfactant at 0.25% will increase the burndown effectiveness of F6482 45DF Herbicide. For F6482 45DF Herbicide application rates refer to **RATE TABLE 1** for standard rate programs and **RATE TABLE 2** for reduced rate programs in glyphosate and glufosinate tolerant soybean systems.

### PREPLANT INCORPORATED

F6482 45DF Herbicide may be applied preplant incorporated prior to planting soybeans. F6482 45DF Herbicide may be applied alone or in combination with other preplant incorporated herbicides labeled for soybeans. Do not incorporate deeper than 2 inches. Improper soil incorporation may result in erratic weed control and/or crop injury. F6482 45DF Herbicide may be followed by labeled postemergence soybean herbicides for increased control of grass and broadleaf weeds. Always follow the most restrictive label when tank mixing. For F6482 45DF Herbicide application rates refer to **RATE TABLE 1** for standard rate programs and **RATE TABLE 2** for reduced rate programs in glyphosate and glufosinate tolerant soybean systems.

### PREEMERGENCE

F6482 45DF Herbicide can be applied from 30 days before planting and up to 3 days after planting, but before the crop seed germinate to prevent injury to emerging crop seedlings. F6482 45DF Herbicide applied after crop emergence will cause severe injury to the crop. Please refer to section 13 for more information regarding soybean tolerance F6482 45DF Herbicide can be applied alone or in combination with other labeled soybean herbicides for preemergence grass control. F6482 45DF Herbicide can be applied preemergence following the use of a preplant incorporated grass herbicide labeled for use on soybeans. If weeds are present at time of F6482 45DF Herbicide application apply with appropriate burndown herbicides for improved control of existing weeds. Refer to product labels for use rates and instructions. Properly closed planter seed furrows are required before F6482 45DF Herbicide application to avoid crop injury. For F6482 45DF Herbicide application rates refer to **RATE TABLE 1** for standard rate programs and **RATE TABLE 2** for reduced rate programs in glyphosate and glufosinate tolerant soybean systems.

F6482 45DF Herbicide may be tank mixed with other products containing metribuzin as long as the total seasonal amount of metribuzin is not exceeded.

**Soybean Rate Table 1**

Standard Rate Programs (Soybeans)			
Fall, Early Pre-Plant, Pre-plant Incorporated, Preemergence Conservation or Conventional Tillage			
Broadcast Rate	oz/A (lb ai/A) F6482 45DF Herbicide*		
	Soil Texture **		
% Organic Matter ***	Coarse	Medium	Fine
1.0 – 2.0%	12(0.34)-14(0.39)	14(0.39)-16(0.45)	16(0.45)-18(0.51)
2.0 – 4.0	14(0.39)-16(0.45)	16(0.45)-18(0.51)	18(0.51)-20(0.56)
* Use the higher rate for suppression of grasses and sedges.			
** Refer to the previous information on soil types under the SOIL CLASSIFICATION CHART.			
*** Do not apply to soils with less than 1% organic matter.			
Adverse crop response can occur on soils with pH greater than 7.5. To reduce adverse crop response, use a maximum of 12 oz of F6482 45DF Herbicide on soils with pH greater than 7.5.			



**Soybean Rate Table 2**

<b>Reduced Rate Programs (Soybeans)</b>			
Fall, Early Pre-Plant, Pre-plant Incorporated, Preemergence Conservation or Conventional Tillage (Reduced Rates for the Suppression of Weeds Listed to Reduce Early Season Weed Competition in Glyphosate and Glufosinate Tolerant Soybean Systems)			
<b>Broadcast Rate</b>	<b>oz/A (lb ai/A) F6482 45DF Herbicide*</b>		
	<b>Soil Texture **</b>		
<b>% Organic Matter ***</b>	<b>Coarse</b>	<b>Medium</b>	<b>Fine</b>
1.0 – 2.0	8(0.23)	8(0.23) -10(0.28)	10(0.28) – 12(0.34)
2.0 – 4.0	8(0.23) – 10(0.28)	10(0.28) – 12(0.34)	12(0.34) – 14(0.39)

\* For fall applications use the higher rate for the appropriate soil texture and organic matter. Use the higher rate for suppression of grasses and sedges.  
 \*\* Refer to the previous information on soil types under the SOIL CLASSIFICATION CHART.  
 \*\*\* Do not apply to soils with less than 1% organic matter.  
**Adverse crop response can occur on soils with pH greater than 7.5. To reduce adverse crop response, use the minimum rate for the appropriate % organic matter and soil texture on soils with pH greater than 7.5.**

**REDUCED RATE F6482 45DF HERBICIDE PROGRAMS FOLLOWED BY POSTEMERGENCE HERBICIDE TREATMENTS (RATE TABLE 2)**

F6482 45DF Herbicide may be applied as an early preplant, preplant incorporated or preemergence treatment followed by labeled postemergence soybean herbicides for increased control of grass and broadleaf weeds. F6482 45DF Herbicide may also be followed by a postemergence application of a glyphosate product to glyphosate tolerant soybeans. Apply the specified application rate of F6482 45DF Herbicide for suppression of weeds in glyphosate tolerant soybeans, maintaining control with sequential applications of registered postemergence herbicides. Refer to the partner product labels for specific use directions, weed control claims, precautionary statements, and restrictions.

**REPLANTING INSTRUCTIONS**

If initial planting of soybeans fails to produce a stand due to adverse environmental conditions, only soybeans may be replanted in fields treated with F6482 45DF Herbicide when used according to directions in Soybean section. Do not retreat field with a second application of F6482 45DF Herbicide or crop injury may occur unless specifically allowed in other sections of the label. Do not replant treated fields with any crop at intervals that are inconsistent with the Rotational Crop Guidelines found on this label for F6482 45DF Herbicide. When specified tank mix combinations are used, consult the product label for replanting and recropping instructions and observe the directions that are the most restrictive.

**PRECAUTIONS**

Do not apply F6482 45DF Herbicide after soybeans have emerged. Severe injury will occur when F6482 45DF Herbicide applications are made after soybean emergence.

**RESTRICTIONS**

Do not apply more than a maximum single application of 20 oz/A of F6482 45DF Herbicide (0.23 lb ai/A sulfentrazone and 0.33 lb ai/A metribuzin).  
 Do not apply more than a maximum annual application of 22 oz/A of F6482 45DF Herbicide (0.23 lb ai/A sulfentrazone and 0.33 lb ai/A metribuzin).  
 Do not apply to soils classified as Sand, which have less than 1% organic matter.  
 Do not apply F6482 45DF Herbicide to frozen soil.  
 Do not incorporate deeper than 2 inches.  
 Do not graze treated soybean or harvest for forage or hay.

**SUGARCANE**

F6482 45DF Herbicide may be applied to sugarcane as a preemergence treatment at planting or lay-by timing.

<b>F6482 45DF Herbicide Use Rates (Sugarcane)</b>			
Planting Time and Lay-by Applications			
<b>Broadcast Rate</b>	<b>oz/A (lb ai/A) F6482 45DF Herbicide*</b>		
	<b>Soil Texture **</b>		
<b>% Organic Matter</b>	<b>Coarse</b>	<b>Medium</b>	<b>Fine</b>
1.0 -2.0	16(0.45) – 20(0.56)	20(0.56) – 26(0.73)	26(0.73) – 30(0.84)
2.0 – 4.0	20(0.56) – 26(0.73)	26(0.73) – 30(0.84)	30(0.84) – 33(0.93)

\* Use the higher rates for soils of pH less than 7.0. Use the lower rates for pH greater than 7.0 within the rate range.  
 \*\* Refer to the previous information on soil types under the SOIL CLASSIFICATION CHART.  
 Use higher rates for soils of pH less than 7.0 and lower rates for pH greater than 7.0 within the rate range.

**Planting Time Application**

F6482 45DF Herbicide can be applied to newly planted or ratoon sugarcane as a broadcast or banded preemergent soil applied treatment for the control of broadleaf weeds, grasses and sedges in sugarcane. Use the higher rate on clay soils and/or soils with organic matter content higher than 2 percent. Apply either by air in a minimum of 5 gallons of spray per acre or by ground equipment in a minimum of 10 gallons of spray per acre. F6482 45DF Herbicide may be applied with other herbicides registered for use in sugarcane.

For aerial application, and to assure that spray does not adversely affect adjacent sensitive non-target crops, apply F6482 45DF Herbicide at a minimum upwind distance of 400 feet from sensitive plants.

**RESTRICTIONS**

Do not apply within 120 days before harvest.

Do not apply more than a maximum single application of 33 oz/A of F6482 45DF Herbicide (0.37 lb ai/A sulfentrazone and 0.55 lb ai/A metribuzin).

Do not apply more than a maximum annual application of 33 oz/A of F6482 45DF Herbicide (0.37 lb ai/A sulfentrazone and 0.55 lb ai/A metribuzin).

Do not graze treated sugarcane or harvest for forage or hay.

Use of low-pressure and high volume hand wand equipment is prohibited.

**TOMATOES (Transplanted Only)**

F6482 45DF Herbicide Use Rate Table (Tomato, Transplanted only) Preplant Incorporated Applications (PPI)			
Broadcast Rate	oz/A (lb ai/A) F6482 45DF Herbicide		
	Soil Texture		
% Organic Matter	Coarse	Medium	Fine
<1.5%	6(0.17)-8(0.23)	8(0.23)-12(0.34)	8(0.23)-16(0.45)
1.5 – 3.0 %	8(0.23)-16(0.45)	16 (0.45)	16(0.45)-20(0.56)
>3.0 %	16(0.45)-20(0.56)	20(0.56)	20(0.56)
Refer to the previous information on soil types under the COARSE, MEDIUM, and FINE categories. Use higher rates for soils of pH less than 7.0 and lowest rate listed per soil type and OM for pH greater than 7.0.			

**Preplant Incorporated (PPI)**

F6482 45DF may be applied preplant incorporated (1" - 2" deep) as a broadcast application. Applications must be made prior to transplanting.

**Weeds Controlled**

When applied according to directions, Authority MTZ DF Herbicide will provide control of:

Galinsoga	Lambsquarters, common
Nightshade, Eastern black	Pigweed, redroot
Morningglory, ivyleaf	Waterhemp, common
Nutsedge, yellow	Waterhemp, tall

**PRECAUTIONS**

These Crop Specific Use directions are based upon the interactive effects of F6482 45DF Herbicide (sulfentrazone + metribuzin) 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. Consult university or extension weed management specialists for additional information on specific local varieties or cultivars and any other pertinent information on F6482 45DF Herbicide.

**RESTRICTIONS**

Do not apply more than a maximum single application of 20 oz/A of F6482 45DF Herbicide (0.23 lb ai/A sulfentrazone and 0.33 lb ai/A metribuzin).

Do not apply more than a maximum annual application of 22 oz/A of F6482 45DF Herbicide (0.23 lb ai/A sulfentrazone and 0.33 lb ai/A metribuzin).

Do not apply by air.

Do not make postemergence applications of other herbicides containing metribuzin to transplanted tomatoes within 14 days of applying F6482 45DF Herbicide.

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

## STORAGE AND DISPOSAL

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

### Pesticide Storage

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

### In Case Of Spill

In case of spill avoid contact, isolate area and keep out animals and unprotected persons. Confine spills. Call CHEMTREC (Transportation and spills): (800) 424-9300.

### To confine spill

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

Wastes resulting from the use of this product must be disposed of on site or at an approved waste disposal facility. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency or the Hazardous Waste representative at the nearest EPA Regional office for guidance.

### 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 pounds) 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 pounds or less) Empty the remaining contents into application equipment or a mix tank. 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.

Then offer for recycling if available, or reconditioning if appropriate, or, if allowed by state and local authorities, puncture and dispose of in a sanitary landfill or incineration, or 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. Then offer for recycling if available, or reconditioning if appropriate, or, if allowed by state and local authorities, puncture and dispose of in a sanitary landfill or incineration, or by burning. If burned, stay out of smoke.

## 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 of FMC or Seller. To the extent consistent with applicable 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. 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.

These 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-4145 060923 xx-xx-xx

Replaces Label Code: 022013

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