



U.S. ENVIRONMENTAL PROTECTION AGENCY
 Office of Pesticide Programs
 Registration Division (7505C)
 401 "M" St., S.W.
 Washington, D.C. 20460

EPA Reg. Number:
 279-3146

Date of Issuance:
 FEB 27 1997
 Date of Expiration:
 FEB 27 2003

NOTICE OF PESTICIDE:
 Registration
 Reregistration

Term of Issuance:
 Conditional

Name of Pesticide Product:
 Authority 4 F
 Herbicide

(under FIFRA, as amended)

Name and Address of Registrant (include ZIP Code):

FMC Corporation
 1735 Market Street
 Philadelphia, PA 19103

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

On the basis of information furnished by the registrant, the above named pesticide is hereby registered/reregistered under the Federal Insecticide, Fungicide and Rodenticide Act.

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

This product is conditionally registered in accordance with FIFRA sec. 3(c)(7)(C) provided that you:

1. Comply with all the terms and conditions as stated in attached correspondence dated February 24, 1997 from FMC Corporation concerning additional data requirements for sulfentrazone.
2. Submit and/or cite all data required for registration of your product under FIFRA sec. 3(c)(5) when the Agency requires all registrants of similar products to submit such data.
3. Make the following label changes before you release the product for shipment:
 - a. Revise the EPA Registration Number to read, "EPA Reg. No. 279-3146".

Signature of Approving Official:

Susan L. Stanton, for

Date:

FEB 27 1997

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 Morgan
 2/29/97

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EPA Reg. No. 279-3146

4. Submit one copy of the final printed label for the record before you release the product for shipment.

If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA sec. 6(e). Your release for shipment of the product constitutes acceptance of these conditions.

A stamped copy of the label is enclosed for your records.

Joanne I. Miller
 Product Manager (23)
 Fungicide-Herbicide Branch
 Registration Division (7505C)

Enclosure

CONCURRENCES

SYMBOL	p							
SURNAME	p							
DATE	p							

Code 1466

Net Contents

AUTHORITY™ 4 F

Herbicide

For Agricultural or Commercial Use Only

EPA Reg. No. 279-

EPA Est. 279-

Active Ingredient:	By Wt.
Sulfentrazone*	39.6%
Inert Ingredients:	60.4%
	100.0%

*N-[2,4-dichloro-5-[4-(difluoromethyl)-4,5-dihydro-3-methyl-5-oxo-1H-2,4-triazol-1-yl]phenyl]methanesulfonamide
 Contains 4 pounds of active ingredient per gallon.
 U.S. Patent No. 4,818,275

KEEP OUT OF REACH OF CHILDREN

CAUTION

STATEMENT OF PRACTICAL TREATMENT

If swallowed: Call a physician or Poison Control Center. Drink 1 or 2 glasses of water and induce vomiting by touching back of throat with finger. If person is unconscious, do not give anything by mouth or induce vomiting.

If inhaled: Remove victim to fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth. Get medical attention.

If on skin: Wash with plenty of soap and water. Get medical attention.

If in eyes: Flush eyes with plenty of water. Call a physician if irritation persists.

For Emergency Assistance Call (800) 331-3148.

See other panels for additional precautionary information.

PRECAUTIONARY STATEMENTS

Hazards to Humans (and Domestic Animals)

Caution

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

Personal Protective Equipment (PPE)

Applicators and other handlers must wear: long-sleeved shirt and long pants, waterproof gloves, and shoes plus socks.

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

ACCEPTED
with COMMENTS
In EPA Letter Dated

FEB 27 1997

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

279-3146



FMC Corporation
Agricultural Products Group
Philadelphia PA 19103

2/21/97 Draft

User Safety Recommendations:

Users should:

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

Environmental Hazards

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

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% organic matter.

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

Physical/Chemical Hazards

Do not use or store near heat or open flame.

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DIRECTIONS FOR USE

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

FOR USE ON SOYBEANS ONLY.

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

Do not apply Authority 4 F more than once per season.

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

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

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. The requirements in this box 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, waterproof gloves, and shoes plus socks.

STORAGE AND DISPOSAL

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

Pesticide Storage

Store product in original container only, away from other pesticides, fertilizer, food or feed.

Do not store below 40° F (4° C).

Store in a cool, dry place and avoid excess heat.

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: 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

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

Triple rinse (or equivalent). Then offer for recycling 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 Sealed Container: Do not rinse container. Do not empty remaining formulated product. Do not break seals. Return intact to point of purchase.

GENERAL INFORMATION

Authority 4 F Herbicide is a liquid flowable formulation, to be mixed with water and sprayed for selective preemergence and preplant incorporated weed control in soybeans. When applied according to the instructions on this label, it will control listed broadleaf weeds, grasses and sedges.

The mode of action of Authority 4 F involves uptake by weed roots and shoots. Preemergence and preplant incorporated applications of Authority 4 F 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 (½" to 1") is not received within 7 to 10 days after the Authority 4 F treatment, a shallow cultivation may be needed to obtain desired weed control. When sufficient moisture is received after dry conditions, Authority 4 F will provide control of susceptible germinating weeds.

This label contains specific use directions for two distinct geographical use areas for Authority 4 F. The *Northern Area* and the *Southern Area* which are shown on the map on page 3 under APPLICATION INFORMATION. This label also contains general use information which is applicable to all Authority 4 F use geography.

Authority 4 F is compatible with most herbicides registered for use in soybeans for preemergence and preplant incorporated applications. Refer to the SPECIFIC USE DIRECTIONS under the *Northern Area* or the *Southern Area* as it pertains to your particular situation. 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 Authority 4 F.

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

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

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

Do not use flood irrigation to apply or incorporate this product.

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

SOYBEAN TOLERANCE

Authority 4 F has been tested on a number of soybean cultivars. The vast majority of cultivars tested when used according to label guidelines have demonstrated tolerance to Authority 4 F. 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 Authority 4 F herbicide program is planned.

Do not use the following soybean cultivars in an Authority 4 F herbicide program: Asgrow 5474, Asgrow 5560, Asgrow 6785, Coker 368, Dekalb 264, Hutcheson, Northrup King 1990, Northrup King F2020 and Tracy M.

For further information regarding soybean tolerance to an Authority 4 F treatment contact your FMC Agricultural Product Representative or your local seed supplier for a list of potentially sensitive soybean cultivars.

If cool/cold weather or heavy rainfall occurs immediately following an Authority 4 F 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.

**WEEDS CONTROLLED:
AUTHORITY 4 F ALONE**

Preemergence: All States

When used as directed, a soil applied treatment of Authority 4 F will provide control of the following weeds:

BROADLEAVES

- Amaranth, Palmer
- Amaranth, spiny
- Anoda, spurred
- Beggarweed, Florida
- Carpetweed
- Cocklebur, common
- Copperleaf, Hophornbean
- Croton, tropic
- Daisy, American
- Dayflower, common
- Galinsoga, hairy
- Groundcherry, clammy
- Groundcherry, cutleaf
- Jimsonweed
- Kochia
- Ladysthumb
- Lambsquarters, common
- Mexicanweed
- Morningglory:
 - Entireleaf
 - Ivyleaf
 - Palmleaf
 - Pitted
 - Purple

- Morningglory: (continued)
 - Red
 - Smallflower
 - Tall
- Mustard, wild
- Nightshade, eastern black
- Nightshade, hairy
- Nightshade, silverleaf
- Pigweed:
 - Redroot
 - Smooth
 - Tumble
- Poorjoe
- Purslane, common
- Pusley, Florida
- Senna, coffee
- Sida, prickly (Teaweed)
- Smartweed, Pennsylvania
- Smellmellon
- Spurge, spotted
- Starbur, bristly
- Velvetleaf
- Waterhemp, common
- Waterhemp, tall

GRASSES

- Barnyardgrass*
- Broadleaf signalgrass
- Crabgrass, large
- Crabgrass, smooth
- Crabgrass, southern*
- Crowfootgrass*
- Foxtail, giant*

- Foxtail, green*
- Foxtail, yellow*
- Goosegrass
- Johnsongrass, seedling*
- Orchardgrass
- Panicum, fall
- Panicum, Texas*

SEDGES

- Nutsedge, purple
- Nutsedge, yellow
- Sedge, annual

* Indicates population suppressed by at least 70%.

GENERAL APPLICATION INFORMATION

DO NOT use on crops other than soybeans.

Ground application only

Use a standard low pressure herbicide boom sprayer equipped with suitable nozzles and screens. Apply uniformly using properly calibrated nozzles (10 to 40 psi) and screens and strainers no finer than 50 mesh. Use 10 to 40 gallons of spray solution per acre.

Water must be used as the carrier for Authority 4 F when applied alone, or when tank mixed with other soybean herbicides.

Continuous agitation during application is required. Avoid overlap. Shut off spray booms while turning, slowing or stopping, as over application may result. Avoid letting Authority 4 F sit overnight as settling of product and difficulty of resuspending may occur.

To avoid injury to sensitive crops, spray equipment used for Authority 4 F applications must be drained and thoroughly cleaned with water plus ammonia before being used to apply other products.

Do not allow spray to drift onto adjacent crops or plants as injury to other plants may occur. To avoid drift, applicators must observe the following precautions:

Spray Drift Precautions

Do not spray when wind speeds exceed 10 mph. Do not exceed a spray pressure of 40 psi.

Band Treatment Applications

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

$$\frac{\text{Band width in inches}}{\text{Row width in inches}} \times \text{Broadcast Rate Per Acre} = \text{Band rate per acre}$$

$$\frac{\text{Band width in inches}}{\text{Row width in inches}} \times \text{Broadcast Volume Per Acre} = \text{Band volume per acre}$$

SPRAY TANK PREPARATION

It is important that spray equipment is clean and free of existing pesticide deposits before using Authority 4 F. Follow the spray tank cleanout procedures specified on the label of product previously applied before adding Authority 4 F to the tank.

MIXING INSTRUCTIONS

Fill spray tank with one fourth of the volume of clean water needed for the field to be treated. Start agitation system, add Authority 4 F per directions under APPLICATION INFORMATION. Refer to RATE TABLE 1 for the Northern Area or RATE TABLE 2 for the Southern Area for the proper application rate. Continuous spray tank agitation is required at all times to keep the product in suspension. Make sure Authority 4 F is thoroughly mixed before application or before adding another product to the spray tank.

For tank mixtures with other soybean 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 spray tank one fourth full with water. With agitator operating, add the recommended amounts of ingredients using the following order: dry granules first, liquid suspensions (flowables) second. Add EC products followed by water soluble products to tank as agitation continues and tank is filled with water. All applicable directions, restrictions and precautions for the tank mixture herbicide(s) must be followed.

Use Authority 4 F spray mixture immediately after mixing. Do not store mixture. If Authority 4 F was tank mixed with other soybean herbicides, all additional directions, restrictions and precautions for the additional herbicides must also be followed.

SPRAYER CLEANUP

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. Carefully follow sprayer clean-up instructions noted below to prevent spray tank residues from damaging other crops.

Drain the spray tank and spray system and completely flush with water plus ammonia. Then, remove all spray tips and strainers and clean separately in a bucket containing water.

Dispose of excess spray mixture and/or rinsate by application to cropland as described on this label. If excess spray mixture and/or rinsate cannot be disposed of according to label instructions, dispose of in compliance with local, state and federal guidelines. Contact your state pesticide or Environmental Control Agency or the Hazardous Waste representative at the nearest EPA regional office for guidance.

APPLICATION INFORMATION

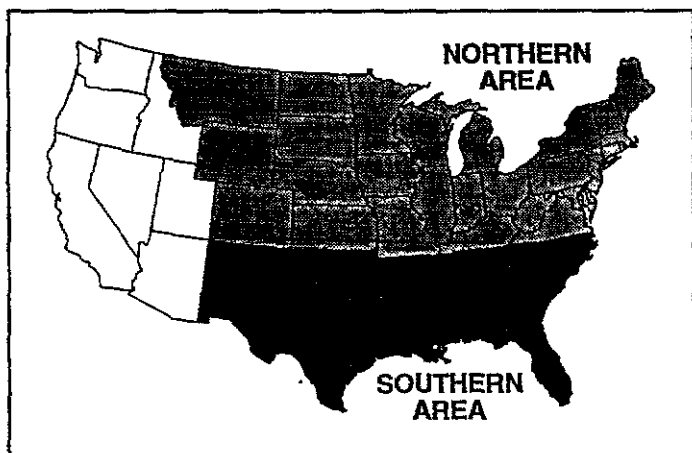
All States Listed

Do not apply Authority 4 F after the soybean crop has emerged or severe injury of the crop will occur.

Authority 4 F may be applied by any of the methods listed below. These methods apply to both geographical use areas, the *Northern Area* and the *Southern Area*.

AUTHORITY 4 F GEOGRAPHICAL AREAS

For Application Rates, Weed Control, and Crop Rotation



Northern Area consists of the following states:

Colorado, Connecticut, Delaware, Illinois, Indiana, Iowa, Kansas, Kentucky, Maine, Maryland, Massachusetts, Michigan, Minnesota, Missouri (except bootheel), Montana, Nebraska, New Hampshire, New Jersey, New York, North Dakota, Ohio, Pennsylvania, Rhode Island, South Dakota, Vermont, Virginia, West Virginia, and Wyoming

Southern Area consists of the following states:

Alabama, Arkansas, Florida, Georgia, Louisiana, Mississippi, Missouri bootheel*, New Mexico, North Carolina, Oklahoma, South Carolina, Tennessee, and Texas.

* Southern area includes Missouri bootheel which incorporates the following counties: Butler, Dunklin, Mississippi, New Madrid, Pemiscot, Scott, and Stoddard.

PREEMERGENCE

Authority 4 F can be applied preemergence up to 30 days before crop emergence. Authority 4 F can also be applied during or after planting, but before the crop emerges. Authority 4 F applied after crop emergence will cause severe injury to the crop. Authority 4 F can be applied alone or in combination with herbicides such as Command 3ME®, Command 4EC® (note label restrictions), Dual®, Frontier®, Lasso® or Prowl® for preemergence grass control. Authority 4 F can be applied preemergence following the use of a preplant incorporated grass herbicide such as Command 4EC®, Commerice®, Treflan® (or other products containing the active ingredient trifluralin and registered for use on soybeans), or Sonalan®. Authority 4 F can also be applied with a burndown herbicide such as Roundup®, Gramoxone®, or 2,4-D. Refer to product labels for use rates and instructions.

For Authority 4 F Preemergence use rates, see:

Northern Area - RATE TABLE 1

Southern Area - RATE TABLE 2

PREPLANT INCORPORATED

Authority 4 F can be applied preplant incorporated up to 30 days prior to planting soybeans. Uniformly incorporate Authority 4 F or tank mixes of Authority 4 F no deeper than 1 - 2 inches of soil prior to planting soybeans. Improper soil incorporation can result in erratic weed control or crop injury. Authority 4 F can be applied alone or in combination with herbicides such as Command 4EC® (note label restrictions), Commerice®, Treflan® (or other products containing the active ingredient trifluralin and registered for use on soybeans), Sonalan®, Dual®, Frontier®, Lasso® or Prowl® for preemergence grass control. Authority 4 F can also be applied with a burndown herbicide such as Roundup®, Gramoxone®, or 2,4-D. Refer to product labels for use rates and instructions.

For Authority 4 F Preplant Incorporated use rates, see:

Northern Area - RATE TABLE 1

Southern Area - RATE TABLE 2

NO-TILL OR MINIMUM TILL

Authority 4 F can be applied 30 days prior to planting (Early preplant) in a No-till or Minimum Till cropping system. Authority 4 F has a limited burndown spectrum and should always be used with a companion burndown herbicide such as Roundup®, Gramoxone® or 2,4-D. The addition of crop oil concentrate at 1 quart per acre or non-ionic surfactant at 0.25% will increase the burndown effectiveness of Authority 4 F. For more information on Authority 4 F usage in No-Till see:

Northern Area NO-TILL OR MINIMUM TILL — RATE TABLE 1

Southern Area NO TILL OR MINIMUM TILL — RATE TABLE 2

SEQUENTIAL APPLICATIONS

AUTHORITY 4 F FOLLOWED BY AN APPLICATION OF A POSTEMERGENCE HERBICIDE

Authority 4 F may be applied Early Preplant, Preplant Incorporated or Preemergence and then followed as needed with a Postemergence application of Assure II®, Fusilade DX®, Fusion®, Poast®, Poast Plus®, or Select® for Postemergence grass control. Authority 4 F may also be followed as needed with a Postemergence application of Basagran®, Blazer®, Classic®, Cobra®, Concert®, Galaxy®, Pinnacle®, Pursuit®, Reflex®, Resource®, Scepter®, or Storm® for Postemergence broadleaf control. Authority 4 F may also be followed by a Postemergence application of Roundup® provided approved Roundup Ready™ soybeans are planted. Refer to these product labels for specific use directions, weed claims, precautionary statements and restrictions.

For the proper rate of Authority 4 F to use followed by a Postemergence application of the herbicides listed above, see:

Northern Area - RATE TABLE 1

Southern Area - RATE TABLE 2

NORTHERN AREA SPECIFIC USE DIRECTIONS

Authority 4 F may be used in the Northern Area as shown in the U.S. map on page 3. Select a rate of Authority 4 F from Rate Table 1 based on soil type and the percent of organic matter. Consideration of rotational crop intervals should be noted prior to use of Authority 4 F. See Rotational Crop Guideline 1 for specific intervals.

Apply Authority 4 F Preemergence, Preplant Incorporated, No-Till or Minimum Till as directed in the APPLICATION INFORMATION section of this label.

Authority 4 F Rate Table 1			
Preemergence, Preplant Incorporated, No-Till and Minimum Till			
Broadcast Rate % Organic Matter	Fluid Ounces/Acre		
	Coarse	Soil Texture* Medium	Fine
< 1	8.0	10.0	12.0
1 - 3	10.0	12.0	12.0
> 3	12.0	12.0	12.0

* Refer to the information on soil types under the COARSE, MEDIUM and FINE categories in the table below.

COARSE	MEDIUM	FINE
Sands	Sandy clay loams	Silty clay loams
Loamy sands	Sandy clays	Silty clays
Sandy loams	Loams	Clay loams
	Silt loams	Clays
	Silts	

GRASS CONTROL

Northern Area

Authority 4 F controls or suppresses listed grass species when used as directed. Refer to species controlled or suppressed on page 2. For improved grass control or control of species not listed on this label, Authority 4 F may be:

- Tank mixed with other grass herbicides such as Command® 3ME, Command® 4EC, Commence®, Dual®, Frontier®, Lasso® (or other products containing the active ingredient alachlor and registered for use on soybeans), Prowl®, Treflan® (or other products containing the active ingredient trifluralin and registered for use on soybeans) or Sonalan®.
- Followed as needed by a postemergence grass herbicide such as Matador®, Fusilade DX®, Fusion®, Poast®, Poast Plus® or Select®.
- Followed as needed by a postemergence application of Roundup® on approved Roundup Ready™ soybeans.

Refer to the label of the tank mix partner, postemergence grass herbicide, or Roundup Ready™ soybeans for specific information regarding use, rates, preplant intervals, application timing, grasses controlled, rotational crop intervals, precautions, restrictions and other information. Follow the product label with the most restrictive labeling when using Authority 4 F in combination with soil applied herbicides or in a sequential preemergence followed by postemergence herbicide program.

BROADLEAF CONTROL

Northern Area

Authority 4 F when used as directed controls or suppresses listed broadleaf weeds in soybeans. Refer to species controlled or suppressed on page 2. For improved broadleaf control or control of species not listed on this label, Authority 4 F may be:

- Tank mixed with other broadleaf herbicides such as Lexone®, Sencor®, Canopy®, Lorox®, Lorox Plus®, Pursuit® or Scepter® (or other products containing the active ingredient imazaquin and registered for use on soybeans).
- Followed as needed by a postemergence broadleaf herbicide such as Skirmish®, Pinnacle®, Concert®, Basagran®, Blazer®, Galaxy®, Storm®, Reflex®, Cobra®, Resource®, Pursuit® or Scepter®.
- Followed as needed by a postemergence application of Roundup® on approved Roundup Ready™ soybeans.

Broadleaf Control continued

Refer to the label of the tank mix partner, postemergence broadleaf herbicide, or Roundup Ready™ soybeans for specific information regarding use, rates, application timing, broadleaf weeds controlled, rotational crop intervals, precautions, restrictions and other information. Follow the product label with the most restrictive labeling when using Authority 4 F in combination with soil applied herbicides or in a sequential preemergence followed by postemergence herbicide program.

NO-TILL OR MINIMUM TILL

Northern Area

Authority 4 F provides season-long preemergence control of broadleaf, grass and sedge species listed on this label when used as directed. In addition, Authority 4 F will provide burndown control of the following broadleaf weeds up to 2 to 4 inch Lambsquarters, Pigweeds, Nightshade, Small Flower Buttercup, and aid in the control of listed broadleaf weeds. For total burndown control, Authority 4 F must be tank mixed with Roundup® or Gramoxone® at their recommended label rates. Tank mixes with 2,4-D may also be used when needed.

Authority 4 F may also be tank mixed with Roundup prior to planting and followed with a Roundup postemergence treatment on Roundup Ready™ soybeans. Always refer to the partner herbicide label for use directions regarding application rates, restrictions and other use information.

ROTATIONAL GUIDELINES FOR ALL AUTHORITY 4 F APPLICATIONS

Northern Area

The following recropping table pertains to the Northern Area as shown on the map on page 3. When used as directed in the Northern Area section of this label, the table shows the minimum interval in months from the time of Authority 4 F application until Authority 4 F treated soil can be replanted to the crops listed. When Authority 4 F is tank mixed with another herbicide, refer to the partner label for recropping instructions, following the directions that are most restrictive. Do not feed treated soybean forage or soybean hay to livestock.

ROTATIONAL CROP GUIDELINE 1 NORTHERN AREA

Crop	Recropping Interval in Months
Soybeans	Anytime
Wheat	4
Corn, Field*	10
Rice	12
Other Cereal Grains (Barley; Buckwheat; Millet, pear; Millet, proso; Oats; Rye;...)	12
Teosinte; Triticale; Wild rice	12
Cotton	18 [†]
Sweet Corn	18 [†]
Sorghum	18 [†]
Canola	24 [†]
Sugar Beets	24 [†]
Any other crop not listed	18 [†]

* Field Corn includes only corn grown for grain or silage, popcorn and seed corn.

† Crops that have rotational intervals greater than 12 months after an Authority 4 F application are the result of crop injury concerns.

REPLANTING INSTRUCTIONS

Northern Area

If initial planting of soybeans fails to produce a stand due to adverse environmental conditions, only soybeans may be replanted in fields treated with Authority 4F. Do not retreat field with a second application of Authority 4F or crop injury may occur. Do not replant treated fields with any crop at intervals which are inconsistent with the Rotational Crop Guideline 1 on this label for Authority 4F. When recommended tank mix combinations are used, consult the product label for replanting and recropping instructions and observe the directions that are the most restrictive.

**SOUTHERN AREA
SPECIFIC USE DIRECTIONS**

Authority 4 F may be used in the *Southern Area* as shown in the U.S. map on page 3. Select a rate of Authority 4 F from Rate Table 2 based on soil type and the percent of organic matter. Consideration of rotational crop intervals should be noted prior to use of Authority 4 F. See Rotational Crop Guideline 2 for specific intervals.

Apply Authority 4 F Preemergence, Preplant Incorporated, No-Till or Minimum Till as directed in the APPLICATION INFORMATION section of this label.

Authority 4 F Rate Table 2			
Preemergence, Preplant Incorporated, No-Till and Minimum Till			
Broadcast Rate % Organic Matter	Fluid Ounces/Acre		
	Coarse	Soil Texture* Medium	Fine
< 1	8.0	10.0	10.0
1 - 3	10.0	11.2	11.2
> 3	11.2	12.0	12.0

* Refer to the information on soil types under the COARSE, MEDIUM and FINE categories in the table below.

COARSE	MEDIUM	FINE
Sands	Sandy clay loams	Silty clay loams
Loamy sands	Sandy clays	Silty clays
Sandy loams	Loams	Clay loams
	Silt loams	Clays
	Silts	

GRASS CONTROL

Southern Area

Authority 4 F controls or suppresses listed grass species when used as directed. Refer to species controlled or suppressed on page 2. For improved grass control or control of species not listed on this label, Authority 4 F may be:

- Tank mixed with other grass herbicides such as Command® 3ME, Command® 4EC, Commence®, Dual®, Frontier®, Lasso® (or other products containing the active ingredient alachlor and registered for use on soybeans), Prowl®, Treflan® (or other products containing the active ingredient trifluralin and registered for use on soybeans) or Sonalan®.
- Followed as needed by a postemergence grass herbicide such as Matador®, Fusilade® DX, Fusion®, Poast®, Poast Plus® or Select®.
- Followed as needed by a postemergence application of Roundup® on approved Roundup Ready™ soybeans.

Refer to the label of the tank mix partner, postemergence grass herbicide, or Roundup Ready™ soybeans for specific information regarding use, rates, preplant intervals, application timing, grasses controlled, rotational crop intervals, precautions, restrictions and other information. Follow the product label with the most restrictive labeling when using Authority 4 F in combination with soil applied herbicides or in a sequential preemergence followed by postemergence herbicide program.

BROADLEAF CONTROL

Southern Area

Authority 4 F when used as directed controls or suppresses labeled broadleaf weeds in soybeans. Refer to species controlled or suppressed on page 2. For improved broadleaf control or control of species not listed on this label, Authority 4 F may be:

- Tank mixed with other broadleaf herbicides such as Lexone®, Sencor®, Canopy®, Lorox®, Lorox Plus®, Pursuit® or Scepter® (or other products containing the active ingredient imazaquin and registered for use on soybeans).
- Followed as needed by a postemergence broadleaf herbicide such as Skirmish®, Pinnacle®, Concert®, Basagran®, Blazer®, Galaxy®, Storm®, Reflex®, Cobra®, Resource®, Pursuit® or Scepter®.
- Followed as needed by a postemergence application of Roundup® on approved Roundup Ready™ soybeans.

Broadleaf Control *continued*

Refer to the label of the tank mix partner, postemergence grass herbicide, or Roundup Ready™ soybeans for specific information regarding use, rates, application timing, broadleaf weeds controlled, rotational crop intervals, precautions, restrictions and other information. Follow the product label with the most restrictive labeling when using Authority 4 F in combination with soil applied herbicides or in a sequential preemergence followed by postemergence herbicide program.

NO-TILL OR MINIMUM TILL

Southern Area

Authority 4 F provides season-long preemergence control of broadleaf, grass and sedge species listed on this label when used as directed. In addition, Authority 4 F will provide burndown control of the following broadleaf weeds up to 2 to 4 inch Lambsquarters, Pigweeds, Nightshade, Small Flower Buttercup, and aid in the control of listed broadleaf weeds. For total burndown control, Authority 4 F must be tank mixed with Roundup® or Gramoxone® at their recommended label rates. Tank mixes with 2,4-D may also be used when needed.

Authority 4 F may also be tank mixed with Roundup prior to planting and followed with a Roundup postemergence treatment on Roundup Ready Soybeans. Always refer to the partner herbicide label for use directions regarding application rates, restrictions and other use information.

**ROTATIONAL GUIDELINES FOR ALL
AUTHORITY 4 F APPLICATIONS**

Southern Area

The following recropping table pertains to the *Southern Area* as shown on the map on page 3. When used as directed in the *Southern Area* section of this label, the table shows the minimum interval in months from the time of Authority 4 F application until Authority 4 F treated soil can be replanted to the crops listed. When Authority 4 F is tank mixed with another herbicide, refer to the partner label for recropping instructions, following the directions that are most restrictive. Do not feed treated soybean forage or soybean hay to livestock.

**ROTATIONAL CROP GUIDELINE 2
SOUTHERN AREA**

Crop	Recropping Interval in Months
Soybeans	Anytime
Wheat	4
Corn, Field*	10
Rice	12
Sorghum	12
Other Cereal Grains (Barley; Buckwheat; Millet, pear; Millet, proso; Oats; Rye; ...	12
Teosinte; Triticale; Wild rice)	12
Cotton	18 [†]
Sweet Corn	18 [†]
Canola	24 [†]
Sugar Beets	24 [†]
Any other crop not listed	18 [†]

* Field Corn includes only corn grown for grain or silage, popcorn and seed corn.
† Crops that have rotational intervals greater than 12 months after an Authority 4F application are the result of crop injury concerns.

REPLANTING INSTRUCTIONS

Southern Area

If initial planting of soybeans fails to produce a stand due to adverse environmental conditions, only soybeans may be replanted in fields treated with Authority 4F. Do not retreat field with a second application of Authority 4F or crop injury may occur. Do not replant treated fields with any crop at intervals which are inconsistent with the Rotational Crop Guideline 2 on this label for Authority 4F. When recommended tank mix combinations are used, consult the product label for replanting and recropping instructions and observe the directions that are the most restrictive.

WEED SCIENTIFIC NAMES

BROADLEAVES

	SCIENTIFIC NAMES
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>)
Cocklebur, common	(<i>Xanthium pennsylvanicum</i>)
Copperleaf, Hophornbean	(<i>Acalypha ostryifolia</i>)
Croton, tropic	(<i>Croton glandulosus</i>)
Daisy, American	(<i>Eclipta alba</i>)
Dayflower, common	(<i>Commertina communis</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>)
Mexicanweed	(<i>Caperonia castanaefolia</i>)
Morningglory:	
Entireleaf	(<i>Ipomoea integrifolia</i>)
Ivyleaf	(<i>Ipomoea hederacea</i>)
Palmleaf	(<i>Ipomoea wrightii</i>)
Pitted	(<i>Ipomoea lacunosa</i>)
Purple	(<i>Ipomoea turbinata</i>)
Red	(<i>Ipomoea coccinea</i>)
Smallflower	(<i>Jacquemontia tamnifolia</i>)
Tail	(<i>Ipomoea purpurea</i>)
Mustard, wild	(<i>Sinapis arvensis</i>)
Nightshade:	
Eastern Black	(<i>Solanum ptycanthum</i>)
Hairy	(<i>Solanum sarachoides</i>)
Silverleaf	(<i>Solanum elaeagnifolium</i>)
Pigweed:	
Redroot	(<i>Amaranthus retroflexus</i>)
Smooth	(<i>Amaranthus hybridus</i>)
Tumble	(<i>Amaranthus albus</i>)
Poorjoe	(<i>Diodia teres</i>)
Purslane, common	(<i>Portulaca oleracea</i>)
Pusley, Florida	(<i>Richardia scabra</i>)
Senna, coffee	(<i>Cassia occidentalis</i>)
Sida, prickly (Teaweed)	(<i>Sida spinosa</i>)
Smartweed, Pennsylvania	(<i>Polygonum pensylvanicum</i>)
Smellmellon	(<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, Tail	(<i>Amaranthus tuberculatus</i>)

GRASSES

Barnyardgrass*	(<i>Echinochloa crus-galli</i>)
Broadleaf signalgrass	(<i>Brachiaria platyphylla</i>)
Crabgrass, large	(<i>Digitaria sanguinalis</i>)
Crabgrass, smooth	(<i>Digitaria ischaemum</i>)
Crabgrass, southern*	(<i>Digitaria ciliaris</i>)
Crowfootgrass*	(<i>Dactyloctenium aegyptium</i>)
Foxtail*:	
Green*	(<i>Setaria faberi</i>)
Yellow*	(<i>Setaria viridis</i>)
White*	(<i>Setaria glauca</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

Nutsedge, purple	(<i>Cyperus rotundus</i>)
Nutsedge, yellow	(<i>Cyperus esculentus</i>)
Sedge, annual	(<i>Cyperus compressus</i>)

* Indicates population suppressed by at least 70%.

Dealers Should Sell in Original Packages Only.

Terms of Sale or Use: On purchase of this product buyer and user agree to the following conditions:

Warranty: FMC makes no warranty, expressed or implied, concerning the use of this product other than indicated on the label. Except as so warranted the product is sold as is. Buyer and user assume all risk of use and/or handling and/or storage of this material when such use and/or handling and/or storage is contrary to label instructions.

Directions and Recommendations: Follow directions carefully. Timing and method of application, weather and crop conditions, mixture with other chemicals not specifically recommended and other influencing factors in the use of this product are beyond the control of the seller and are assumed by the buyer at his own risk.

Use of Product: FMC's recommendations for the use of this product are based upon tests believed to be reliable. The use of this product being beyond the control of the manufacturer, no guarantee, expressed or implied is made as to the effects of such or the results to be obtained if not used in accordance with directions or established safe practice.

Damages: Buyer's or user's exclusive remedy for damages for breach of warranty or negligence shall be limited to direct damages not exceeding the purchase price paid and shall not include incidental or consequential damages.

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