

# UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION

January 19, 2022

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

Subject: Registration Review Label Mitigation for Sulfentrazone and Imazethapyr

Product Name: AUTHORITY IMI (F7119 4 SC) HERBICIDE

EPA Registration Number: 279-3330

Application Date: 02/17/2020

Decision Numbers: 559835 and 581295

Dear Ms. Rodriguez:

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

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

A 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 Srijana Shrestha by phone at 202-566-2329, or via email at <a hrestha.srijana@epa.gov.</a>

Sincerely,

Linda Arrington, Branch Chief

Risk Management and Implementation Branch 4

Pesticide Re-Evaluation Division

Office of Pesticide Programs

Enclosure: Stamped Label



# For Use Only by Individuals/Firms Certified As Licensed Pesticide Applicators

EPA Reg. No. 279-3330	<b>EPA Est. XXX</b>
Active Ingredient	By Wt.
Sulfentrazone*	33.33%
Imazethapyr*	6.67%
Other Ingredients:	
Total:	100.0%

\*AUTHORITY ASSIST Herbicide contains 4 pounds of active ingredient per gallon of product (3.33 pounds a.i. of sulfentrazone and 0.67 pounds a.i. of imagethapyr)

U.S. Patent Pending

# KEEP OUT OF REACH OF CHILDREN CAUTION

### **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 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 treatment advice.

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

#### **HOTLINE NUMBER**

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

### **Net Contents:**



# ACCEPTED

01/19/2022

Under the Federal Insecticide, Fungicide and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No. 272 2000

279-3330

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

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.

# **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 the 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 wash waters 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 overlying tile drainage systems that drain to surface waters.

Imazethapyr may impact surface water quality due to runoff of rain water. This is especially true for poorly draining soils and soils with shallow ground water. Imazethapyr is classified as having high potential for reaching surface water via runoff for several months or more after application. A level, well maintained vegetative buffer strip between areas to which this product is applied and surface water features such as ponds, streams, and springs will reduce the potential loading of imazethapyr from runoff water and sediment. Runoff of this product will be reduced by avoiding applications when rainfall or irrigation is expected to occur within 48 hours.

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

# Physical/Chemical Hazards

Do not use or store near open flame.

#### 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. (10)

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

AUTHORITY ASSIST, which contains the active ingredients Sulfentrazone and Imazethapyr is a group 14 and 2 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 AUTHORITY ASSIST 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 2 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 2 herbicides.
- · Avoid making more than two applications of AUTHORITY ASSIST and any other Group 14 and 2 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.

#### **DIRECTIONS FOR USE**

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

Read all Directions for Use carefully before applying.

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.

#### PRODUCT INFORMATION

AUTHORITY ASSIST is a soluble concentrate formulation. AUTHORITY ASSIST is to be mixed with water, liquid fertilizer, or mixtures of water and liquid fertilizer and sprayed for selective preemergence or preplant incorporated weed control. When applied according to the instructions on this label, AUTHORITY ASSIST will control listed broadleaf and sedge weeds and provide grass suppression.

The mode of action of AUTHORITY ASSIST herbicide involves uptake by weed roots and shoots. Preemergence and preplant incorporated applications of AUTHORITY ASSIST 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. AUTHORITY ASSIST must be activated by 0.5 to 1.0 inch of rainfall or irrigation water or erratic weed control will result. If adequate moisture (1/2" to 1") is not received within 7 to 10 days after the AUTHORITY ASSIST treatment, a shallow cultivation may be needed to aid in activation to obtain desired weed control. When sufficient moisture is received after dry conditions, AUTHORITY ASSIST herbicide will provide control of susceptible germinating weeds. Soil applications of AUTHORITY ASSIST must be made before crop seed germination to prevent injury to the emerging crop seedlings. When applications after planting are delayed, injury may occur if seeds are germinating or if they are located near the soil surface (cracking).

AUTHORITY ASSIST herbicide exhibits excellent crop safety. Poor growing conditions, such as excessive moisture, cool temperatures, and soil compaction or the presence of various pathogens may impact seedling vigor. Under these

conditions, the active ingredients in AUTHORITY ASSIST, like other soil-applied herbicides, can contribute to crop response. However, these early symptoms are short-lived.

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 ASSIST.

#### **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 wash water, and rainwater that may fall on the pad. Surface water shall not be allowed to either flow over or from the pad, which means the pad must be self contained. The pad shall be sloped to facilitate material removal. An unroofed pad shall be of sufficient capacity to contain at a minimum 110% of the capacity of the largest pesticide container or application equipment on the pad. A pad that is covered by a roof of sufficient size to completely exclude precipitation from contact with the pad shall have a minimum containment 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.

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

#### **CROP ROTATIONAL INTERVALS**

Shown below are the minimum intervals in months from the time of AUTHORITY ASSIST application until AUTHORITY ASSIST treated soil may be replanted with the crops listed. When AUTHORITY ASSIST is tank mixed with other herbicide(s), refer to all those labels for re-cropping instructions, following the intervals that are the most restrictive. For crops not listed, the interval is 30 months in addition to a successful field bioassay.

#### **CROP ROTATION INTERVALS**

CROP INTERVAL (Months)		
Alfalfa	12	
Barley	9 1/2	
Cabbage	40 (18 for the states of AL, DE, FL, GA, IN, KY, MD, NJ, NC, PA, SC, VA)	
Canola, Crambe	40 with bioassay*	
Chickpeas	10	
Corn, field	10, 4**	
Corn, seed	10 <sup>1</sup>	
Corn, pop	18, 10 <sup>2</sup>	
Corn, sweet	18, 10 <sup>2</sup>	
Cotton	18	
Dry beans	10	
Dry peas	10	
Flax	26	
Lettuce	18	
Lima Beans	4	
Oats	18	
Peas	10	
Potatoes	26	
Rice	40	
Rye	4 (18 for the states of MN, ND North of Hwy #210)	
Safflower	18	
Snap Beans	10	
Sorghum	18	
Soybeans	Anytime	
Sugar Beets	40 with bioassay*	
Sunflowers	18	
Sweet Potatoes	26 (18 for the states of AL, DE, FL, GA, IN, KY, MD, NJ, NC, PA, SC, VA)	
Tobacco	9 1/2	
Wheat	4	

<sup>\*</sup>The field bioassay is a test strip of the intended crop planted across the previously treated field and grown to maturity. The test strip should include low spots, knolls, and soil variations such as pH and type. If injury does not occur in the test strip the crop may be planted the following year.

<sup>\*\*</sup> IR, Clearfield, and IMR corn hybrids may be planted after 4 months where AUTHORITY ASSIST was applied at 6 ounces or less.

<sup>1</sup>Hybrid Corn Seed Production, Growers are directed to contact the seed company for information and recommendations regarding the planting of corn grown for seed in field treated with Authority Assist the previous year. FMC will not accept responsibility for any crop injury on field corn grown for seed following an application of AUTHORITY ASSIST.

<sup>2</sup>Sweet corn (Processed only) and popcorn may be planted after 10 months where Authority Assist was applied at 6 oz/A or less.

#### REPLANTING INSTRUCTIONS

If the initial planting of soybeans fails to produce a uniform stand, soybeans may be replanted in fields treated with AUTHORITY ASSIST alone. When tank mixing with a labeled product, refer to the replant instructions for that product. Do not replant treated fields with any crop at intervals that are inconsistent with the CROP ROTATION INTERVALS on the AUTHORITY ASSIST label. Where a tank mix is used, refer to the product's labels for any additional replant instructions.

#### MIXING AND LOADING INSTRUCTIONS

## AUTHORITY ASSIST Applied Alone

Select the proper labeled application rate of AUTHORITY ASSIST from the appropriate crop section. Fill the spray tank with approximately one-half of the volume of water needed for the acreage being treated. With agitator operating, add the required amount of AUTHORITY ASSIST for acreage being treated. Allow the product to fully disperse. Complete the addition of spray water. Maintain agitation during filling, mixing and application. Apply the AUTHORITY ASSIST spray mixture immediately after mixing.

# **AUTHORITY ASSIST Applied in Tank Mix Combination**

Select the proper labeled application rate of AUTHORITY ASSIST from the appropriate crop section. Read and follow all applicable use directions, precautions and restrictions on the respective tank mix product labels. To ensure product compatibility, a jar test should be conducted before large volume mixing. Provided the jar test indicates the mixture is compatible, prepare the tank mixture as follows.

Fill the spray tank with approximately one-half of the volume of water needed for the acreage being treated. With agitator operating, add the required amount of AUTHORITY ASSIST for the acreage being treated by opening the bottle(s) and measuring directly into the spray tank. Allow the product to fully disperse. Next, add the recommended amount(s) of the additional tank mix product(s) in the following order: first dry formulations (e.g., wettable powders, dry flowables), next liquid suspensions (e.g., flowables) and finally liquids (e.g., EC's). Allow time for complete mixing and dispersion after each addition, adding water as necessary. Complete the addition of spray water. Maintain agitation during filling, mixing and application. Use AUTHORITY ASSIST tank mixtures immediately after mixing.

Fertilizer Spray Mixtures
Applications of AUTHORITY ASSIST alone, or with recommended tank mixtures, in conjunction with fertilizer solutions may be used unless use directions specifically state otherwise. Small quantities should be tested for compatibility by the following procedure before mixing in full spray tank quantities.

- 1) Add 1 pint of fertilizer solution in a quart jar.
- 2) Add the appropriate amount of herbicide based on the table below. If more than one product is to be used, add each separately using the following sequence: dry formulations (e.g., wettable powders, dry flowables) first, liquid suspensions (e.g., flowables) next and finally liquids (e.g., EC's).

#### MIXTURE COMPATIBILITY TESTING

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Herbicide Type	Herbicide Field Use Rate	Amount Herbicide Added Per Pint	
Wettable Powder or Dry	0.5 pound	0.75 teaspoon	
Flowable	1.0 pound	1.50 teaspoons	
	2.0 pounds	3.00 teaspoons	
	3.0 pounds	4.50 teaspoons	
Emulsified Concentrates	1.0 pint	0.5 teaspoon	
Liquid Flowables	1.0 quart	1.0 teaspoon	
	2.0 quarts	2.0 teaspoons	
	3.0 quarts	3.0 teaspoons	

\*Based on a spray volume of 25 gal. per acre. For lower or higher spray volumes, adjust fluid fertilizer quantity accordingly.

- Close jar and shake well.
- Watch mixture for several seconds, again after 5 minutes and again after 30 minutes. If herbicide/fertilizer combination remains mixed or can be remixed readily (i.e., does not permanently separate, foam, gel or become lumpy), the mixture is compatible and can be mixed in full volumes and sprayed. If the mixture is compatible, prepare spray by adding fertilizer solution to the tank first, then follow directions noted below.

AUTHORITY ASSIST Applied Alone with Liquid Fertilizer
When adding AUTHORITY ASSIST to a liquid fertilizer carrier, AUTHORITY ASSIST should be premixed in clear water.
Fill the spray tank one-half full with fertilizer solution. With agitator operating, add the AUTHORITY ASSIST slurry to the spray tank. Use a minimum of one gallon of water for each container of AUTHORITY ASSIST. Stir until completely dissolved. Then add slurry to the spray tank through a 20-35 mesh screen. Rinse container used for pre-mixing and add rinsate to the spray tank. Complete filling the sprayer tank with fertilizer. Maintain agitation during filling, mixing and application. Use AUTHORITY ASSIST spray mixture immediately after mixing.

AUTHORITY ASSIST Applied in Tank Mix Combinations
Fill the spray tank one-half full with fertilizer solution. With the agitator operating, add a premix of AUTHORITY ASSIST as described in the preceding paragraph. Next, dilute the individual tank mix partners with sufficient water to form a free flowing mixture; then add to the spray tank of fertilizer. While maintaining agitation, add the other products using the following order: slurry of dry formulations (wettable powders, dry flowables) first, diluted liquid formulations (EC's, flowables) second. Complete filling the sprayer tank with fertilizer. Maintain agitation during filling, mixing and application. Use AUTHORITY ASSIST tank mixtures immediately after mixing.

#### APPLICATION INFORMATION

#### **Ground Application**

Use a conventional 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. When AUTHORITY ASSIST is tank mixed with a contact burndown herbicide, ground applicators must use a minimum spray volume of 15 gallons per acre to ensure coverage. Do not exceed 40 psi spray pressure unless required by the spray nozzle manufacturer.

Water or liquid fertilizer solutions may be used as the carrier for AUTHORITY ASSIST when applied alone or in tank mixtures with other registered soybean herbicides. A jar test is recommended to determine the compatibility of AUTHORITY ASSIST and the fertilizer solution.

Apply Authority Assist spray mixture immediately after mixing. Continuous agitation is required until all spray mixture has been applied. Avoid swath overlaps. Shut off spray booms while turning, slowing or stopping, as over application may result. AUTHORITY ASSIST spray mixtures should not be allowed to sit overnight as settling of product and difficulty of re-suspending may occur.

To avoid injury to sensitive crops, spray equipment used for AUTHORITY ASSIST applications must be drained and thoroughly cleaned with water plus ammonia before being used to apply other products. See Spray Clean-out Section.

**Avoid all direct, and/or indirect spray contact with non-target plants.** Do not apply near desirable vegetation. Allow adequate distance between target area and desirable plants to minimize exposure.

#### **Aerial Application**

#### **Use Restrictions**

Aerial application is allowed only when environmental conditions prohibit ground application. Apply a minimum of five (5) gallons of finished spray per acre.

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 \(^3\)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 Mandatory Spray Drift Management.

#### **RUNOFF AND WIND EROSION PRECAUTIONS**

Do not apply under conditions which favor runoff or wind erosion of soil containing AUTHORITY ASSIST to non-target areas.

To prevent off-site movement due to runoff or wind erosion:

- Avoid treating powdery dry or light sandy soils when conditions are favorable for wind erosion. Under these conditions, allow the soil surface to be settled by rainfall or irrigation.
- · Do not apply to impervious substrates such as paved or highly compacted surfaces or frozen or snow covered ground.
- · Do not apply to soils when saturated with water.
- Do not use tail water from the first flood or furrow irrigation of treated fields to treat non target crops unless at least 1/2 inch of rainfall has occurred between application and the first irrigation.

#### MANDATORY SPRAY DRIFT MANAGEMENT

### **Aerial Applications:**

- Do not release spray at a height greater than 10 ft above the ground or vegetative canopy, unless a greater application height is necessary for pilot safety.
- For applications prior to the emergence of crops and target weeds, applicators are required to use a coarse or coarser droplet size (ASABE S572.1).
- For all other application, applicators are required to use a medium or coarser droplet size (ASABE S572.1).
- Applicators must use ½ swath displacement upwind at the downwind edge of the field.
- Do not apply when wind speeds exceed 15 mph at the application site. If the windspeed is greater than 10 mph, the boom length must be 65% or less of the wingspan for fixed wing aircraft and 75% or less of the rotor diameter for helicopters. Otherwise, the boom length must be 75% or less of the wingspan for fixed-wing aircraft and 90% or less of the rotor diameter for helicopters.
- Do not apply during temperature inversions.

#### **Ground Boom Application**

- Users must only apply with the release height recommended by the manufacturer, but no more than 3 feet above the ground or crop canopy unless making a turf, pasture, or rangeland application, in which case applicators may apply with a nozzle height no more than 4 feet above the ground.
- For applications prior to the emergence of crops and target weeds, applicators are required to use a coarse or coarser droplet size (ASABE S572.1).
- For all other application, applicators are required to use a medium or coarser droplet size (ASABE S572.1).
- Do not apply when wind speeds exceed 15 miles per hour at the application site.
- Do not apply during temperature inversions.

## **Boomless Ground Application**

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

#### **SPRAY DRIFT ADVISORIES**

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

#### Importance of Droplet Size

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

#### **Controlling Droplet Size- Ground Boom**

**Volume –** Increasing the spray volume so that larger droplets are produced will reduce spray drift. Use the highest practical spray volume for the application. If a greater spray volume is needed, consider using a nozzles with higher flow rate. Ground applicators must use a minimum finished spray volume of 10 gallons per acre. When sulfentrazone is tank mixed with a contact burndown herbicide, ground applicators must use a minimum spray volume of 15 gallons per acre.

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

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

#### **Controlling Droplet Size- Aircraft**

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

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

Setting nozzles at the lowest effective height will help reduce the potential for pray.

#### **Handheld Technology Applications**

Take precautions to minimize spray drift.

**Nozzle Type and Droplet Size**— Select Nozzles and application pressure that deliver medium to coarse or larger spray droplets as indicated in the nozzle manufacturers' recommendations and in accordance with ASABE Standard S-572. Select coarse to very coarse droplet size when product is uses as a preemergent/preplant application. Select medium to very coarse droplet size when product is used postemergence with a contact burndown herbicide. Applicators may spray only when wind speed is between 3 and 10 mph. **DO NOT** apply as spray droplets smaller than medium to coarse (defined by ASABE standard).

#### Boom Height - Ground Boom

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

#### Release Height - Aircraft

Higher release heights increase the potential for spray drift.

#### **Shielded Sprayers**

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

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

**Temperature Inversions –** Do not apply AUTHORITY ASSIST during temperature inversions because the drift potential is high. Temperature inversions are characterized by increasing temperatures with altitude and are common on nights with limited cloud cover and light to no wind. The presence of an inversion can be indicated by ground fog or by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing. Avoid applications during temperature inversions.

#### Off-Target Movement of AUTHORITY ASSIST

Drift of dilute spray mixtures containing AUTHORITY ASSIST 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. AUTHORITY ASSIST can cause significant symptomology by drift on to sensitive crops and other plants. This symptomology may manifest initially as discreet, localized spots where contacted by AUTHORITY ASSIST drift mixtures. Depending on concentration of the spray solution and droplets size (effectively determining the dosage of sulfentrazone) and also depending on the inherent sensitivity of the plants involved, these spots or lesions may or may not coalesce. These effects will usually not have lasting effects on plant growth, but will likely reduce the value of affected fruit or foliage where grade or quality is associated with appearance. In severe drift instances with particularly sensitive crops, defoliation of affected foliage could result. Failure to follow these guidelines and environmental prohibitions that then result in off-target movement or drift of AUTHORITY ASSIST on to unintended crops or plants, irrespective of severity, constitutes misapplication of this product. FMC accepts no responsibility or liability for potential crop effects that may result from such misapplication of AUTHORITY ASSIST.

#### SPRAY EQUIPMENT CLEAN-OUT

After spraying AUTHORITY ASSIST and before using sprayer equipment for any other applications, the sprayer must be thoroughly cleaned using the following procedure.

1. Drain sprayer tank, hoses, and spray boom and thoroughly rinse the inside of the sprayer tank with clean water to remove sediment and residues. Thoroughly flush sprayer hoses, boom and nozzles with clean water.

- 2. Fill the tank 1/2 full with clean water, and add appropriate tank mix cleaner or ammonia (follow manufacturer's directions for use). Fill the tank to capacity and operate the sprayer for 15 minutes to flush hoses, boom, and nozzles.
- 3. Convenient and through cleaning of the sprayer can be achieved if the cleaning solution is left in the spray tank, hoses, spray booms and spray nozzles overnight or during storage.
- 4. Before using the sprayer, drain the spray system. Rinse the tank with clean water and flush through the hoses, boom, and nozzles. Remove and clean spray tips and screens separately with the tank mix cleaner or ammonia solution.
- 5. Properly dispose of all cleaning solution and rinsate in accordance with Federal, State and local regulations and guidelines.

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.

Should small quantities of Authority Assist 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.

#### **WEEDS CONTROLLED**

Use Restrictions:
This product, AUHTORITY ASSIST, may only be used in accordance with the Product Application Information and the specific crop use directions. When used as directed, AUTHORITY ASSIST will provide control or suppression of the following broadleaf weeds and grasses.

Common Name	Scientific Name
Broadleaves	Scientific Name
Amaranth, Palmer	Amaranthus, Palmer
Amaranth ening	Amaranthus eninosus
Amaranth, spiny Amaranth, spleen	Amaranthus, spinosus Amaranthus dubius
Anada anurrad	Anoda cristata
Anoda, spurred	Desmondiom tortuosum
Beggarweed, Florida Carpetweed	
	Mullugo verticillata
Catchweed Bedstraw	Galium aparine
Cocklebur, common*	Xanthium Pensylvanicum
Copperleaf, Hophornbeam	Acalypha ostryeafolia
Copperleaf, Virginia Daisy, American	Acalypa virginica
Daisy, American	Eclipta alba
Eclipta	Eclipta prostrata
Galinsoga, hairy	Galinsoga ciliata
Golden Crownbeard	Verbesina encelioides
Groundcherry, clammy (seedling)	Physalis heterophylla
Groundcherry, cutleaf	Physalis angulata
Jimsonweed	Datura stramonium
Kochia	Kochia scoparia
Ladysthumb	Polygonum persicaria
Lambsquarters, common	Chenopodium album
Marshelder	lva xanthifolia
Morningglory, entireleaf Morningglory, ivyleaf	Ipomea hederacea integriusc
Morningglory, jyyleaf	Ípomea hederacea hederacea
Morningglory, palmleaf	lpomea Wrightii
Morningglory, pitted	Ipomea lacunosa
Morningglory, purple	Ipomea turbinata
Morningglory, red	Ipomea coccinea
Morningglory, scarlet	Ipomea hederifolia
Morningglory, smallflower	Jacquemontia tamnifolia
Morningglery, enamewer	Inomea nurnurea
Morningglory, tall Mustard, black	Ipomea, purpurea Brassica nigra
Mustard, tumble	Sisymbrium altissimum
Mustard, wild	Brassica kaber
Nightshade, black	Solanum nigrum
Nightshade, Eastern black	Solanum americanum
Nightshade, hairy	Solanum sarrachoides
Pigweed, redroot	Amaranthus retroflexus
Pigweed, redroot Pigweed, smooth	
Poinsettia, wild	Amaranthus hybridus
Poorioe	Euphorbia heterophylla
	Diodia teres
Purslane, common	Portulaca oleracea
Pusley, Florida	Richardia scabra
Redmaids, Rockpurslane Redstem Filaree	Calandrinia ciliata
Reustem Filaree	Erodium cicutarium
Redweed	Melochia corchorifolia
Senna, coffee	Cassia occidentalis
Shepherdspurse	Capsella bursa pastoris
Sida, prickly (Teaweed) Sida, Southern	Sida spinosa
Sida, Southern	Sida acuta
Smartweed, PA	Polygonum pensylvanicum
Spurge, prostrate	Euphorbia humistrata
Spurge, spotted	Euphorbia maculata
Starbur, bristly Thistle, Russian	Acanthospermum hispidum Salsola kali
Thistle, Russian	Salsola kali
Velvetleaf	Abutilon theophrasti
Venice Mallow	Hibiscus trionum
Waterhemp, common	Amaranthus rudis
Waterhemp, tall	Amaranthus tuberculatos
Wild Buckwheat	Polygonum convolvulus

Common Name	Scientific Name
Grasses (suppression only)	
herbicides, or mechanical cultivation	ed herbicides, postemergence grass on will be required for complete grass
Foxtail, bristly	Setaria verticillata
Foxtail, giant	Setaria faberi
Foxtail, green	Setaria viridis
Foxtail, yellow	Setaria lutescens
Johnsongrass, seedling*	Sorghum halapense
Shattercane	Sorghum bicolor
Fall Panicum*	Panicum dichotomiflorum

Common Name	Scientific Name
Sedges	
Nutsedge, purple	Cyperus rotundus
Nutsedge, yellow	Cyperus esculentus
Sedge, annual	Cares spp.

<sup>\*</sup> Will not control ALS resistant biotypes of these weed species

### SOYBEANS

#### TIMING AND METHOD OF APPLICATION

AUTHORITY ASSIST may be applied alone or in tank mixture combinations for the control of the weeds listed in conventional or GMO soybean varieties.

AUTHORITY ASSIST can be applied from 45 days prior to planting up to 3 days after planting. Do not apply if soybean seedlings are emerging (cracking) or no more than 3 days after planting as plant injury may occur. When applying AUTHORITY ASSIST greater than 30 days pre-plant, use the highest application rate within the rate range for the appropriate soil texture and organic matter. AUTHORITY ASSIST may be applied preemergence or preplant incorporated. AUTHORITY ASSIST 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.

Table 1:

### **AUTHORITY ASSIST USE RATES - For All Sovbeans**

AUTHORITY ASSIST Use Rate Table Spring Preplant, Preemergence and PPI Applications					
% Organic Matter*	fl oz/A AUTHORITY ASSIST				
_	Soil Texture				
	Coarse* Medium Fine				
>1.0 – 2.0	6.0 - 8.0 8.0-10.0 10.0-12.0				
2.0 – 4.0+	8.0-10.0 10.0-12.0 12.0				

Refer to the following chart for information on soil type under the COARSE, MEDIUM, and FINE categories. Use higher rates for soils of pH less than 7.0 and the lowest rate for pH greater than 7.0 within the rate range. \* Do not use on coarse soils classified as sand, which have less than 1% organic matter.

#### SOIL CLASSIFICATION CHART

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

Spring Preplant Applications
For applications AUTHORITY ASSIST greater than 30 days preplant use the highest application rate for the appropriate soil texture and organic matter.

Preemergence Applications
AUTHORITY ASSIST may be applied at planting time or within 3 days after planting, but before seed germination.
AUTHORITY ASSIST may be applied alone or in tank mix combinations with other registered soybean herbicides. When applied in tank mix combinations, follow applicable use directions, including application rates, precautions and restrictions of each product in the mixture. Properly closed seed furrows are necessary before applications.

**Preplant Incorporated Applications** 

AUTHORITY ASSIST may be applied alone or in tank mix combinations with other herbicides registered for PPI application on soybeans. For preplant incorporated applications, incorporation must be uniform and no deeper than 2 inches. Improper soil incorporation may result in erratic weed control and/or crop injury. When AUTHORITY ASSIST is applied in tank mix combination with other soybean herbicides, follow the incorporation directions for the tank mix partner(s). Follow applicable use instructions of each product used in the tank mixture.

Fall Applications: AUTHORITY ASSIST 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. If weeds are emerged at the time of application, utilize a tank mixture with a suitable burndown herbicide at labeled rates. Fall applied burndown treatments should be made with a minimum of 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 COC or MSO to the spray mixture can be used to enhance the burndown activity of the application. If weeds are present at time of AUTHORITY ASSIST application apply with appropriate burndown herbicides for improved control of existing weeds. Refer to product labels for use rates and instructions. For AUTHORITY ASSIST application rates refer to either table (Table 1).

#### **Reduced Rates for GMO Soybeans**

AUTHORITY ASSIST may be used at reduced rates in conjunction with planned follow-up weed control applications with glyphosate and glufosinate based herbicide products labeled for use on the appropriate GMO soybean varieties. Follow all AUTHORITY ASSIST application directions.

Apply before planting, at planting time or prior to seed germination. Properly closed seed furrows are necessary when applying at planting time or before seed germination. Recommended postemergence treatments may include any product or combination of products labeled for use.

REDUCED RATE APPLICATIONS

AUTHORITY ASSIST Use Rate Table for Reduced Rates Fall, Preplant, And Preemergence Applications					
Broadcast Rate	Broadcast Rate fl oz/A AUTHORITY ASSIST				
Soil Texture					
% Organic Matter*	% Organic Matter* Coarse* Medium Fine				
<1.0 – 2.0	1.0 – 2.0 4.0 4.0-5.0 5.0-6.0				
2.0 – 4.0+ 4.0-5.0 5.0-6.0 6.0					

Refer to the following chart for information on soil type under the COARSE, MEDIUM, and FINE categories.

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

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

Preplant Weed Suppression for GMO Soybeans: Apply AUTHORITY ASSIST alone or in a tank mixture with other registered, soil applied soybean herbicides, to reduce competition from weeds when followed by a planned postemergence application(s). Apply before planting, at plant or within 3 days after planting. Properly closed seed furrow is necessary to avoid potential crop response when applying at plant or after planting. Recommended postemergence treatments include any product or combination of products labeled to control specific weeds remaining in the field, including any glyphosate or glufosinate based herbicide labeled for use on soybean varieties. For applications greater than 30 days preplant use the higher application rate for the appropriate soil texture and organic matter. For herbicide tolerant or resistant weed species, use the highest labeled rate allowed of AUTHORITY ASSIST according to soil type, pH, and organic matter parameters.

#### Note: AUTHORITY ASSIST is not for use after crop has emerged.

#### **Precautions**

Properly closed seed furrows are necessary when applying at planting time of before seed germination.

The use directions are based on the interactive effects of AUTHORITY ASSIST 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 recommendations presented under General Application Information, Soybean Application use directions, Product Use Rates, Rotational Guidelines, Weeds Controlled and other sections of this label pertinent to the anticipated use. It is important to note that not all cultivars have been tested with AUTHORITY ASSIST. Consult University or Extension specialists for additional information on specific local varieties and any other pertinent local information.

#### Restrictions

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

Do not apply more than 12.0 fl oz/A of AUTHORITY ASSIST (0.312 lb ai sulfentrazone and 0.063 lb ai imazethapyr) per twelve month period.

Do not apply more than 12.0 fl oz/A (0.312 lb ai sulfentrazone and 0.063 lb ai imazethapyr) in a single application.

Do not apply more than two applications per year when using reduced application rates equal to or less than 6.0 fl oz/A of this product per application.

This period is considered to begin with the initial sulfentrazone application.

Do not apply to frozen soils.

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

Do not apply AUTHORITY ASSIST to soils classified as sand containing less than 1% organic matter.

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.

Do not incorporate deeper than 2 inches.

If soybeans are furrow irrigated, till the soil prior to planting winter wheat or barley. The beds should be broken up and the soil mixed with tillage equipment set to operate four (4) to six (6) inches deep.

#### DRY SHELLED BEANS AND PEAS

Navy, great northern, red kidney, black turtle, cranberry, pinto, lima, and small white type dry beans, adzuki, lentils, white lupins, chickpeas (garbanzo beans), dry edible peas, English and southern peas.

For use in the states east of and including: ND, SD, WY, CO, and NM (except the states east of and including VT, MA, and CT).

Authority Assist can be used on dry edible peas, lentils, chickpeas, and lima beans in ID, MT, NV, OR, UT, and

Authority Assist can be used on chickpeas in AZ.

Table 3:

Authority Assist Use Rate (Dry Shelled Beans and Peas) Fall or Spring Early Preplant, Preemergence, and Preplant Incorporated Applications				
Broadcast Rate	fl oz/A Authority Assist			
	Soil Texture			
% Organic Matter	Coarse	Medium	Fine	
<1.5%	2.75 – 3.6 3.6 – 5.4 3.6 – 5.4			
1.5-3.0 %	3.6 – 5.4 4.5 – 6.0 6.0			
>3.0 %	45-60 60 60			

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 the lowest rate for pH greater than 7.0 within the rate range.

#### Early Preplant and Fall Applications:

Authority Assist may be applied in the fall as a preplant treatment to control or suppress weeds prior to planting the following spring. Authority Assist should be applied to the stubble or soil surface and allow moisture from rainfall or snow to move the product into the soil. Do not mechanically incorporate in the fall or spring as this can destroy the herbicide barrier and weed escapes can occur. Do not apply to frozen soils or to existing snow cover to prevent Authority Assist runoff from rain or snow melt that may occur following application. Authority Assist may be tank mixed with other residual soil herbicides that are labeled for fall use on dry bean and dry peas. If weeds are emerged at the time of Authority Assist application, use a burndown herbicide such as glyphosate or paraquat at the full-labeled rate in combination with Authority Assist or split application as needed. Select the appropriate rate from Table 3 above within the correct soil type and organic matter range. When applying Authority Assist in the fall, use a mid to high rate within the rate range for the appropriate soil type and organic matter.

### Early Preplant and Preemergence (Spring Applications)

Authority Assist may be applied preplant on the soil surface in the spring to control weeds in dry bean and dry peas. Authority Assist can be applied early preplant prior to planting up to 3 days after planting as a preemerge soil application if seedlings have not broken the soil surface and if the seed furrow is completely closed. Authority Assist can be tank mixed with other preemerge herbicides labeled for dry bean and dry peas use. If dry conditions persist following preemerge application of Authority Assist, a shallow incorporation may be needed to incorporate and activate the herbicide. If weeds are emerged at the time of Authority Assist application, use a burndown herbicide at the full-labeled rate in combination with Authority Assist or sequential application as needed.

#### Preplant Incorporated (PPI)

Preplant Incorporated (PPI)
Authority Assist may be applied as a Preplant Incorporated treatment in the spring prior to planting in reduced and conventional tillage dry bean and dry pea. Do not incorporate to depths greater than 2 inches. Authority Assist use rates for PPI applications are similar to those used in preplant and preemergence applications. Authority Assist can be tank mixed with other soil-applied herbicides labeled for use in dry bean or dry pea. Do not tank mix Authority Assist with other PPO chemistry herbicides. Observe all precautions, instructions, and rotational cropping guidelines of each product's label when tank mixing including all references to potential carryoger and crop injury warnings or restrictions. when tank mixing, including all references to potential carryover and crop injury warnings or restrictions.

#### Weeds Controlled

When applied according to directions, Authority Assist will provide control of:

Kochia (ALS and Triazine Resistant)
Lambsquarters, common
Nightshade, Eastern black
Pigweed, red root
Pigweed, smooth

#### Precautions

When applying Authority Assist to coarse textured soils, it is recommended that growers allow a minimum of 7-14 days from application to planting to reduce the risk of crop response.

AUTHORITY ASSIST must be activated by 0.5 to 1.0 inch of rainfall or irrigation water or erratic weed control will result. If adequate moisture (1/2" to 1") is not received within 7 to 10 days after the AUTHORITY ASSIST treatment, a shallow cultivation may be needed to aid in activation to obtain desired weed control. When sufficient moisture is received after dry conditions, AUTHORITY ASSIST herbicide will provide control of susceptible germinating weeds. Under extended periods of dry weather, adequate weed control may not be achieved.

Some adverse crop response may occur on coarse textured soils with low organic matter (less than 1.5%) and pH of 7.0 or higher, or on highly eroded soils, hilltops, or in areas of calcareous outcroppings. Authority Assist use rates should be reduced to 2.75 oz/A in those areas, or do not use. Inadequate seed furrow closure or shallow planting (less than 1.0 inch) may result in undesirable crop response. As expected, poor growing conditions such as excessive moisture, low temperatures, soil compaction and diseases may also cause undesirable crop response.

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

#### Restrictions

Do not apply more than 6.0 fl oz/A of AUTHORITY ASSIST (0.156 lb ai sulfentrazone and 0.31 lb ai imazethapyr) total per twelve-month period.

Do not apply more than 6.0 fl oz/A (0.156 lb ai sulfentrazone and 0.31 lb ai imazethapyr)) in a single application.

Do not apply more than one application per year.

The twelve-month period is considered to begin upon the initial Authority Assist application.

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

Do not incorporate to depths greater than 2 inches.

Do not apply to frozen soils or to existing snow cover to prevent Authority Assist runoff from rain or snow melt that may occur following application.

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

#### **PEANUTS**

# Southeastern United States Only (AL, AR, GA, LA, MS, NC, SC, TN, VA)

Apply Authority Assist alone or in combination with other registered herbicides for the control of key grass and broadleaf weeds in peanut production. Refer to the information below for specific use directions. Authority Assist is registered for use on peanuts only in the following states: AL, AR, GA, LA, MS, NC, SC, TN and VA.

#### **Application Instructions**

Authority Assist may be preplant incorporated (to a depth no greater than 2 inches) up to 14 days prior to planting. Incorporation of Authority Assist deeper than 2 inches can result in adverse crop response and/or inconsistent weed control. Alternatively, Authority Assist may be applied to the soil surface early preplant, at planting, or within 3 days after planting. Properly closed seed furrows are required when applying at planting time or before seed germination. When planting into soil treated preplant with Authority Assist, minimize soil disturbance to maintain the herbicide barrier on the soil surface to achieve maximum weed control. Do not use Authority Assist for "at-crack" type applications or apply to expose peanut tissue. Such use can result in significant adverse crop response. Authority Assist is active against many broadleaf and grass weed species. For optimum performance, a combination of Authority Assist plus a grass herbicide labeled for peanuts is recommended when heavy grass pressure is anticipated. Under conditions of exceptionally high weed populations or when weeds not controlled by Authority Assist are anticipated, the use of suitable post-emergent peanut herbicides is recommended. Broadcast apply the correct Authority Assist use rate from Table 4 below in a minimum of 10 gallons of water per acre of finished spray. Banded Authority Assist application rates must be adjusted in proportion to the broadcast rate.

Table 4:

able 4.				
Authority Assist Use Rate (Peanut) Early Preplant, Preemergence, and Preplant Incorporated Applications				
Early Pre	epiant, Preemergence, and F	replant incorporated Applica	LIONS	
Broadcast Rate	Broadcast Rate fl oz/A Authority Assist			
	Soil Texture			
% Organic Matter	Coarse Medium Fine			
<1.5%	3.0 – 3.5 3.5 – 4.0 4.0 – 5.0			
1.5-3.0 %	3.5 - 4.0 4.0 - 5.0 5.0 - 6.0			
>3.0 %	4.5 – 5.0 5.0 - 6.0 6.0 - 7.0			

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

#### **Precautions**

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

Authority Assist is especially effective against a wide range of economic broadleaf and grass weeds. The same processes that Authority Assist affects in these weeds can, under certain conditions, be affected in peanuts. These conditions include high pH (7.0 and above), cool weather, prolonged and excessive moisture, seedling diseases, and any other condition, including poor agronomic practices, that are unfavorable to vigorous crop growth. Such effects in peanuts are often observed as stunting and discoloration. The duration of these effects are somewhat dependent on the duration of the adverse growing conditions. These effects lessen and generally diminish with a return to normal growing conditions. Thorough coverage is essential for postemergence control of small susceptible broadleaf weeds. If thorough coverage is not achieved, postemergence weed control will be poor.

When used as directed, Authority Assist will provide preemergence control of the following weeds (refer to section 23 for postemergence weeds controlled):

BROADLEAVES	
Amaranth, Palmer	Amaranthus palmeri
Amaranth, spiny	Amaranthus, spinosus
Amaranth, spleen	Amaranthus dubius
Anoda, spurred	Anoda cristata
Cocklebur, common	Xanthium strumarium
Copperleaf, hophornbeam	Acalypha ostryifolia
Morningglory, Entireleaf	Ipomea hederacea integriusc
Morningglory, lvyleaf	Ipomea hederacea hederacea
Morningglory, Palmleaf	Ipomea Wrightii
Morningglory, purple	Ipomea turbinate
Morningglory, red	Ipomea coccinea
Morningglory, scarlet	Ipomea hederifolia
Morningglory, tall	Ipomea, purpurea
Nightshade, black	Solanum nigrum
Nightshade, Eastern black	Solanum americanum
Pigweed, redroot	Amaranthus retroflexus
Pigweed, smooth	Amaranthus hybridus
Purslan, common	Portulaca oleracea
Side, prickly	Sida spinosa
Smartweed, PA (seedling)	Polygonum pensylvanicum
Spurges, Prostrate	Euphorbia humistrata
Spurges, Spotted	Euphorbia maculata
Waterhemp, common	Amaranthus rudis
Waterhemp, tall	Amaranthus tuberculatos
GRASSES	
Crabgrass, large	Digitaria sanguinalis
Crabgrass, small	
Crabgrass, southern	Digitaria ciliaris
Barnyardgrass	Echinochloa crus-galli
Goosegrass	Eleusine indica
Signalgrass, broadleaf	
Panicum, fall	Panicum dichotomiflorum
Panicum, Texas	Panicum maximum
SEDGES	
Nutsedge, purple	Cyperus rotundus
Nutsedge, yellow	Cyperus esculentus
Sedge, annual	Cares spp.

Restrictions

Do not apply Authority Assist after crop emergence, at cracking, or if the seedling is close to the soil surface, as undesirable crop response may occur.

Do not apply more than 9.5 fl oz/A of Authority Assist (0.247 lb ai sulfentrazone and 0.50 lb ai imazethapyr) per twelvemonth period.

Do not apply more than 9.5 fl oz/A (0.247 lb ai sulfentrazone and 0.50 lb ai imazethapyr) in a single application.

Do not apply more than two applications per year when using reduced application rates equal to or less than 4.75 fl oz/A of this product per application.

The twelve-month period is considered to begin upon the initial Authority Assist application.

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

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

Do not apply after crop seed germination.

Do not irrigate when peanuts are cracking

#### 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. Store in a cool dry place and avoid excess heat. Do not store below 32°F degrees.

#### In Case of Spill

Avoid contact. Isolate areas and keep out animals and unprotected persons.

#### To Confine Spills.

Dike surrounding area, sweep up spillage, Dispose of in accordance with information given under Pesticide Disposal. Wash spill area with water, absorb with sand, cat litter or commercial clay, sweep up and dispose of in an approved manner. Place damaged container in a large holding container. Identify contents per required hazardous waste labeling regulations.

#### **Pesticide Disposal**

Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture or rinsate is a violation of Federal law. If these wastes can not be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency or the Hazardous Waste representative of 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 gallons) Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. (For containers 5 gallons or less) Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow

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

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

#### CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY

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

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

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

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

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

#### LABEL TRACKING INFORMATON

Label Code: D-4142 061521 xx-xx-xx

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