

279-3330

3.13.2008

1/9



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460

OFFICE OF  
PREVENTION, PESTICIDES AND  
TOXIC SUBSTANCES

Dr. Callista O. Chukwunehye, PhD.  
Product Registration  
FMC Corporation  
1735 Market Street  
Philadelphia, PA 19103

MAR 13 2008

SUBJECT: Application for Pesticide Notification (PRN 98-10)  
Request General Label Change  
EPA Reg. No. 279-3330  
Application Dated February 21, 2008

Dear Dr. Chukwunenye:

The Agency is in receipt of your Application for Pesticide Notification under Pesticide Registration Notice (PRN) 98-10 dated 02/21/08 for the above product. The Registration Division (RD) has conducted a review of this request for its applicability under PRN 98-10 and finds that the action(s) requested fall within the scope of PRN 98-10. The label submitted with the application has been stamped "Notification" and will be placed in our records.

If you have any questions, please call me directly at 703-305-6249 or Owen F. Beeder of my staff at 703-308-8899.

Sincerely,

A handwritten signature in black ink, appearing to read "Linda Arrington".

Linda Arrington  
Notifications & Minor Formulations Team Leader  
Registration Division (7505P)  
Office of Pesticide Programs

# FMC Agricultural Products

2/9  
FMC Corporation  
1735 Market Street  
Philadelphia, PA 19103  
215.299.6000 Phone  
www.fmc.com

February 21, 2008

Ms. Joanne I. Miller  
Herbicide Branch, RD (7505P)  
U.S. Environmental Protection Agency  
One Potomac Yard, Room S-4900  
2777 S. Crystal Drive  
Arlington, VA 22202

Dear Ms. Miller:

Subject: Label Amendment for Authority Assist Herbicide (EPA Reg. No.: 279-3330)

FMC is re-submitting a revised master label for the subject product. Authority Assist Herbicide registration and label were stamped approved on 2/8/08. We had previously submitted a Final Printed Label and an Alternate Brand Name Notification.

On page 6 of the enclosed label, we have added clarifying language to the use rate table and the precaution section. The added language is shown in red text. They are notification-type changes. However, since the language was added to the use rate table and precaution section, we are submitting it for your review.

Please call me if you have any questions. My phone number is (215) 299-6592.

Sincerely,



Callista O. Chukwunenye, Ph.D.  
Manager, Product Registrations  
[Callista\\_chukwunenye@fmc.com](mailto:Callista_chukwunenye@fmc.com)

Enclosures:

This letter

EPA Form 8570-1

Copy (5) of the revised Authority Assist Herbicide label with changes in red text



3/9



United States  
**Environmental Protection Agency**  
 Washington, DC 20460

<input type="checkbox"/>	Registration
<input checked="" type="checkbox"/>	Amendment
<input checked="" type="checkbox"/>	Other

OPP Identifier Number

**Application for Pesticide - Section I**

1. Company/Product Number FMC Corporation/279-3330	2. EPA Product Manager Ms. Joanne I. Miller	3. Proposed Classification <input checked="" type="checkbox"/> None <input type="checkbox"/> Restricted
4. Company/Product (Name) FMC Corporation/ Authority Assist Herbicide	PM# PM-23	
5. Name and Address of Applicant (Include ZIP Code) FMC Corporation 1735 Market Street Philadelphia, PA 19103 <input type="checkbox"/> Check if this is a new address	6. Expedited Review. In accordance with FIFRA Section 3(c)(3) (b)(i), my product is similar or identical in composition and labeling to: EPA Reg. No. <u>279-3330</u> Product Name <u>Authority Assist Herbicide</u>	

**Section - II**

<input type="checkbox"/> Amendment - Explain below.	<input type="checkbox"/> Final printed labels in response to Agency letter dated _____
<input type="checkbox"/> Resubmission in response to Agency letter dated _____	<input type="checkbox"/> "Me Too" Application.
<input checked="" type="checkbox"/> Notification - Explain below.	<input type="checkbox"/> Other - Explain below.

**Explanation:** Use additional page(s) if necessary. (For section I and Section II.)

Notification of Other Minor Revision per PR Notice 98-10  
 This notification is consistent with the provisions of PR Notice 98-10 and EPA regulations at 40 CFR 152.46, and no other changes have been made to the labeling or the confidential statement of formula of this product. I understand that it is a violation of U.S.C. Sec.1001 to willfully make any false statement to EPA. I further understand that if this notification is not consistent with the terms of PR Notice 98-10 and 40 CFR 152.46, this product may be in violation of FIFRA and I may be subject to enforcement action and penalties under sections 12 and 14 of FIFRA.

**Section - III**

1. Material This Product Will Be Packaged In:				2. Type of Container	
Child-Resistant Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Unit Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Water Soluble Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		<input type="checkbox"/> Metal	<input checked="" type="checkbox"/> Plastic
				<input type="checkbox"/> Glass	<input type="checkbox"/> Paper
* Certification must be submitted				<input type="checkbox"/> Other (Specify) _____	
3. Location of Net Contents Information <input type="checkbox"/> Label <input checked="" type="checkbox"/> Container		4. Size(s) Retail Container		5. Location of Label Directions <input checked="" type="checkbox"/>	
6. Manner in Which Label is Affixed to Product <input checked="" type="checkbox"/> Lithograph Paper glued Stenciled			<input type="checkbox"/> Other _____		

**Section - IV**

1. Contact Point (Complete items directly below for identification of individual to be contacted, if necessary, to process this application.)		
Name Callista O. Chukwunenye, PhD	Title Manager, Product Registrations	Telephone No. (Include Area Code) (215)299-6592
<b>Certification</b> I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.		6. Date Application Received (Stamped)
2. Signature 	3. Title Manager, Product Registrations	
4. Typed Name Callista O. Chukwunenye, PhD	5. Date February 21, 2008	

4/9



FROM **FMC**

**HERBICIDE**

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

**EPA Reg. No. 279-3330**

**EPA Est. XXX**

<b>Active Ingredient: (1)</b>	<b>By Wt.</b>
Sulfentrazone*	33.33%
Imazethapyr*	6.67%
<b>Other Ingredients:</b>	<b>60.00%</b>
<b>Total:</b>	<b>100.0%</b>

\*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 imazethapyr)  
U.S. Patent No. XXXXXXXXXX

**KEEP OUT OF REACH OF CHILDREN  
CAUTION-AVISO**

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

**FIRST AID (2)**

**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 (3)**

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

**ACTIVE INGREDIENT MADE IN CHINA AND FORMULATED AND PACKAGED IN USA**

**Net Contents:**

**ATTENTION (4)**

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

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

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

Prior to purchase or use of this product, read the Conditions of Sale and Limitation of Warranty and Liability on page 2 of this label. If the terms and conditions are unacceptable, return the product immediately in the original and unopened container.

**TABLE OF CONTENTS**

<b>Section Title/ (Section Number)</b>	<b>Page</b>
Active Ingredient (1) .....	1
Agricultural Use Requirements (9) .....	2
Application Information (18) .....	3
Attention (4) .....	1
Conditions of Sale, Warranty and Liability (11) .....	2
Directions for Use (14) .....	2
Environmental Hazards (7).....	2
First Aid (2) .....	1
General Information (15) .....	3
Hot Line Number (3).....	1
Label Tracking (24).....	6
Mixing and Loading Instructions (20) .....	4
Physical/Chemical Hazards (8) .....	2
PPE Requirements (6) .....	1
Precautionary Statements (5).....	1
Restricted Entry Interval (REI) (10) .....	2
Resistance Management (13) .....	2
Soybeans (23) .....	5
Spray Equipment Clean-out (21) .....	5
Spray Drift Reduction Advisory (19).....	4
Storage and Disposal (12) .....	2

**PRECAUTIONARY STATEMENTS (5)**

**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) (6)**

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

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 (7)

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.

### Physical/Chemical Hazards (8)

Do not use or store near open flame.

### AGRICULTURAL USE REQUIREMENTS (9)

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, and shoes plus socks.

### CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY (11)

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

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

To the extent permitted by 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 PERMITTED BY APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF FMC AND SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT OR, AT THE ELECTION OF FMC OR SELLER, THE REPLACEMENT OF THE PRODUCT.

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

### Storage and Disposal (12)

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

##### Metal Containers

Metal containers should be triple rinsed (or equivalent). Then offered for recycling or reconditioning, or punctured and disposed of in a sanitary landfill, or by other procedures approved by state and local authorities. Do not cut or weld metal containers.

##### Plastic Containers

Plastic containers should be triple rinsed (or equivalent). Then offered to an approved pesticide container recycling program. Or punctured and disposed of in an approved waste disposal facility. Provided on-site incineration is allowed by State and local authorities, containers may be burned. Stay out of smoke.

##### Returnable/Refillable Sealed Containers

Do not break container seals. Do not empty remaining formulated product. Do not rinse inside of container. Return container intact to point of purchase.

### RESISTANCE MANAGEMENT (13)

Some weeds are known to develop resistance to herbicides that have been used repeatedly. While the development of resistance is well understood, it is not easily predicted. Therefore herbicides should be used in conjunction with resistance management strategies in the area. Consult the local or State agricultural advisors for details. If weed resistance should develop in the area, this product used alone may not continue to provide sufficient levels of weed control. If the reduced levels of control can not be attributed to improper application timing, unfavorable weather conditions or abnormally high weed pressure, a resistant strain may have developed.

To reduce the potential for weed resistance, use this product in a rotation program with other classes of chemistry and modes of action. Always apply this product at the recommended rates and in accordance with the use directions. Do not use less than recommended label rates alone or in tank mixtures. Do not use reduced rates of the tank mix partner. For optimum performance, scout fields carefully and begin applications when weeds are smaller rather than larger. If resistance is suspected, contact the local or State agricultural advisors.

### DIRECTIONS FOR USE (14)

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.

### GENERAL INFORMATION (15)

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 in soybeans. When applied according to the instructions on this label, AUTHORITY ASSIST will control listed broadleaf and sedge weeds and provide grass suppression.

AUTHORITY ASSIST is for use in soybeans only.

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 may 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. Activity on established weeds is dependent on the weed species and the depth of the root system in the soil. 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.

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 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.

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 (16)

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 40 months in addition to a successful field bioassay.

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 variable pH and soil types. If crop responses are not observed, the crop may be planted the following year.

#### CROP ROTATION INTERVALS\*

CROP	INTERVAL (Months)
Alfalfa	12
Barley	9½
Cabbage	18
Canola, Crambe	40 with bioassay**
Chickpeas	10
Corn, field	10, 4***
Corn, pop	18
Corn, sweet	18
Cotton	18
Flax	26
Lettuce	18
Lima Beans	4
Oats	18
Peas	10
Potatoes	26
Rice	10
Rye	4
Safflower	18
Snap Beans	10
Sorghum	18
Soybeans	Anytime
Sugar Beets	40 with bioassay**
Sunflowers	18
Sweet Potatoes	18
Tobacco	9½
Wheat	4

\* For all other crops not listed, the rotation interval is a minimum of 40 months.

\*\* 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.

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

#### Hybrid Corn Seed Production

Corn inbred lines grown for hybrid seed production may be injured in the growing season following an application of AUTHORITY ASSIST. Inbred lines should be thoroughly tested for crop tolerance before rotating to production scale acreages. FMC will not accept responsibility for any crop injury on field corn grown for seed following an application of AUTHORITY ASSIST.

### REPLANTING INSTRUCTIONS (17)

If the initial planting of soybeans fails to produce a uniform stand, soybeans may be replanted in fields treated with AUTHORITY ASSIST alone. Do not retreat fields with a second application of AUTHORITY ASSIST. 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.

### APPLICATION INFORMATION (18)

#### DO NOT APPLY TO CROPS OTHER THAN SOYBEANS.

##### 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. 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.

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. Do not allow AUTHORITY ASSIST spray mixtures 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 21 on page 5.

**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**

AUTHORITY ASSIST may be applied by air using properly calibrated nozzle types and arrangements that will provide optimum coverage while producing minimal amounts of fine droplets. Apply sufficient spray volume to achieve adequate coverage. 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.

**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.

**SPRAY DRIFT REDUCTION ADVISORY (19)**

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

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

The following drift management requirements must be followed to avoid off-target movement from applications to agricultural field crops.

Where States and local governments have more stringent regulations, they must be observed.

**Droplet Size Information**

Reduce drift potential by applying large droplets. The optimum drift management strategy is to apply the largest droplets that will provide sufficient coverage and control. Applying larger droplets reduces drift potential, but will not prevent drift when applications are made improperly, or under unfavorable environmental conditions (See Wind, Temperature and Humidity and Temperature Inversions).

**VMD** – VMD is the expression of the droplet size of the spray cloud. The VMD value means that 50% of the droplets are larger than the expressed value and 50% of the droplets are smaller than the expressed value. Optimum spray clouds should be 450 microns with fewer than 10% of the droplets being 200 microns or smaller.

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

**Pressure** – Do not exceed the nozzle manufacturer's recommended pressures. For many nozzle types, lower pressure produces larger droplets. When higher flow rates are needed, use higher flow rate nozzles instead of increasing pressure.

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

**Nozzle Type** – Use a nozzle type that is designed for the intended application. With most nozzle types narrower spray angles produce larger droplets. Consider using low drift nozzles.

**Application Height** – Making applications at the lowest height practical reduces exposure of spray droplets to evaporation and wind movement.

**Swath Adjustment** – Swath adjustment distance must increase with increasing drift potential (higher wind, smaller droplets, etc.)

**Wind** – Drift potentials are lowest between wind speeds of 3 to 10 miles per hour. However, many factors, including droplet size and equipment type determine drift potential at any given wind speed. Applications in wind conditions outside of this range could increase the risk of off-target effects and should be avoided. Note that local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they affect spray drift.

**Temperature and Humidity** - When making applications in conditions of low relative humidity set up equipment to produce larger droplets to compensate for evaporation. Droplet evaporation is most severe when conditions are both hot and dry.

**Temperature Inversions** – Do not apply AUTHORITY ASSIST during temperature inversions because the drift potential is high. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions due to the light variable winds common during inversions. Temperature inversions are characterized by increasing temperatures with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the following morning. Their presence can be indicated by ground fog. However, if fog is not present, inversions can also be identified

by the movement of smoke from a ground source or a smoke generator. Smoke that layers and moves laterally in a concentrated clod (under low wind conditions) indicate an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.

**Sensitive Areas** – Applications should be made when the wind is blowing away from adjacent sensitive areas (e.g. residential areas, bodies of water, known habitats for threatened or endangered species and non-target crops).

**MIXING AND LOADING INSTRUCTIONS (20)**

**AUTHORITY ASSIST Applied Alone**

Select the proper AUTHORITY ASSIST application rate from the following TIMING AND METHOD OF APPLICATION section of this label. 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 by opening the bottle(s) and measuring directly into the spray tank. 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.

Do not store spray mixture.

Do not prepare spray mixtures in nurse tanks.

**AUTHORITY ASSIST Applied in Tank Mix Combination**

Select the proper AUTHORITY ASSIST application rate from TIMING AND METHOD OF APPLICATION section of label. 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.

Do not store tank mixtures.

Do not prepare spray mixtures in nurse tanks.

**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**

Herbicide Type	Herbicide Field Use Rate	Amount Herbicide Added Per Pint
Wettable Powder or Dry Flowable	0.5 pound	0.75 teaspoon
	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.

- 3) Close jar and shake well.
- 4) 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 rinseate 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.

Do not store mixture.

Do not prepare spray mixtures in nurse tanks.

**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 (wetttable 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.

Do not store tank mixtures.

Do not prepare spray mixtures in nurse tanks.

**SPRAY EQUIPMENT CLEAN-OUT (21)**

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 detergent 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 detergent 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 First 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 (22)**

When used as directed, AUTHORITY ASSIST will provide control or suppression of the following broadleaf weeds and grasses.

Common Name	Scientific Name
<b>Broadleaves</b>	
Amaranth, Palmer	<i>Amaranthus, Palmer</i>
Amaranth, spiny	<i>Amaranthus, spinosus</i>
Amaranth, spleen	<i>Amaranthus dubius</i>
Anoda, spurred	<i>Anoda cristata</i>
Beggarweed, Florida	<i>Desmodium tortuosum</i>
Carpetweed	<i>Mullugo verticillata</i>
Catchweed Bedstraw	<i>Galium aparine</i>
Cocklebur, common**	<i>Xanthium Pensylvanicum</i>
Copperleaf, Hophornbeam	<i>Acalypha ostryeafolia</i>
Copperleaf, Virginia	<i>Acalypha virginica</i>
Daisy, American	<i>Eclipta alba</i>
Eclipta	<i>Eclipta prostrata</i>
Galinsoga, hairy	<i>Galinsoga ciliata</i>
Golden Crownbeard	<i>Verbesina encelioides</i>
Groundcherry, clammy (seedling)	<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>
Marshelder	<i>Iva xanthifolia</i>
Morningglory, entireleaf	<i>Ipomea hederacea integrisc</i>
Morningglory, ivyleaf	<i>Ipomea hederacea hederacea</i>
Morningglory, palmleaf	<i>Ipomea Wrightii</i>

Common Name	Scientific Name
<b>Broadleaves (continued)</b>	
Morningglory, pitted	<i>Ipomea lacunosa</i>
Morningglory, purple	<i>Ipomea turbinata</i>
Morningglory, red	<i>Ipomea coccinea</i>
Morningglory, scarlet	<i>Ipomea hederifolia</i>
Morningglory, smallflower	<i>Jacquemontia tamnifolia</i>
Morningglory, tall	<i>Ipomea, purpurea</i>
Mustard, black	<i>Brassica nigra</i>
Mustard, tumble	<i>Sisymbrium altissimum</i>
Mustard, wild	<i>Brassica kaber</i>
Nightshade, black	<i>Solanum nigrum</i>
Nightshade, Eastern black	<i>Solanum americanum</i>
Nightshade, hairy	<i>Solanum sarrachoides</i>
Pigweed, redroot	<i>Amaranthus retroflexus</i>
Pigweed, smooth	<i>Amaranthus hybridus</i>
Poinsettia, wild	<i>Euphorbia heterophylla</i>
Poorjoe	<i>Diodia teres</i>
Purslane, common	<i>Portulaca oleracea</i>
Pusley, Florida	<i>Richardia scabra</i>
Redmaids, Rockpurslane	<i>Calandrinia ciliata</i>
Redstem Filaree	<i>Erodium cicutarium</i>
Redweed	<i>Melochia corchorifolia</i>
Senna, coffee	<i>Cassia occidentalis</i>
Sheperdspurse	<i>Capsella bursa pastoris</i>
Sida, prickly (Teaweed)	<i>Sida spinosa</i>
Sida, Southern	<i>Sida acuta</i>
Smartweed, PA	<i>Polygonum pensylvanicum</i>
Spurge, prostrate	<i>Euphorbia humistrata</i>
Spurge, spotted	<i>Euphorbia maculata</i>
Starbur, bristly	<i>Acanthospermum hispidum</i>
Thistle, Russian	<i>Salsola kali</i>
Velvetleaf	<i>Abutilon theophrasti</i>
Venice Mallow	<i>Hibiscus trionum</i>
Waterhemp, common	<i>Amaranthus rudis</i>
Waterhemp, tall	<i>Amaranthus tuberculatos</i>
Wild Buckwheat	<i>Polygonum convolvulus</i>

Common Name	Scientific Name
<b>Grasses (suppression only)</b>	
<b>Tank mixing with grass soil applied herbicides, postemergence grass herbicides, or mechanical cultivation will be required for complete grass control</b>	
Foxtail, bristly	<i>Setaria verticillata</i>
Foxtail, giant	<i>Setaria faberi</i>
Foxtail, green	<i>Setaria viridis</i>
Foxtail, yellow	<i>Setaria lutescens</i>
Johnsongrass, seedling**	<i>Sorghum halapense</i>
Shattercane**	<i>Sorghum bicolor</i>
Fall Panicum	<i>Panicum dichotomiflorum</i>

Common Name	Scientific Name
<b>Sedges</b>	
Nutsedge, purple	<i>Cyperus rotundus</i>
Nutsedge, yellow	<i>Cyperus esculentus</i>
Sedge, annual	<i>Cares spp.</i>

\*\* Will not control ALS resistant biotypes of these weed species

**SOYBEANS (Conventional and GMO) (23)**

**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 more than 3 days after planting or if soybean seedlings are emerging 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 applied near or after crop emergence may cause severe injury to the crop. 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.



**AUTHORITY ASSIST USE RATES – For All Soybeans**

AUTHORITY ASSIST Use Rate Table Spring Preplant, Preemergence and PPI Applications			
Fluid ounces AUTHORITY ASSIST per acre			
Soil Texture			
% Organic Matter*	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 lower rates for pH greater than 7.0 within the rate range.  
Do not apply more than 8 fl. oz. (0.25 lb a.i.) of AUTHORITY ASSIST north of North Dakota State Highway 13 or Minnesota State Highway 210.  
\* Do not use on coarse soils classified as sand, which have less than 1% organic matter.

**AUTHORITY ASSIST USE RATES – For All Soybeans**

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 of 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.

Do not apply later than three days following planting.

**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.

**Reduced Rates for Roundup Ready Soybeans**

AUTHORITY ASSIST may be used at reduced rates in conjunction with planned follow-up weed control applications with glyphosate based herbicide products labeled for use on Roundup Ready 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	Fluid ounces AUTHORITY ASSIST per acre		
Soil Texture			
% Organic Matter*	Coarse*	Medium	Fine
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 lower rates 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.

**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 the above table for **Roundup Ready Soybeans**.

**Preplant Weed Suppression for Roundup Ready 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 based herbicide labeled for use on Roundup Ready soybean varieties. For applications greater than 30 days preplant use the higher application rate for the appropriate soil texture and organic matter. For applications greater than 30 days preplant multiple in-season applications of a glyphosate based herbicide may be needed due to increased window for weed emergence, reduced competition from soybean crop and longer period of time prior to soybean canopy closure.

**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.

Maintain spray tank agitation until the spray mixture is applied.

Do not store spray mixtures.

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.

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 by air or through any type of irrigation system.

Do not make more than one soil application per crop year.

Do not apply more than 12.0 fluid ounces (0.374 pounds active ingredient) of AUTHORITY ASSIST per acre per 12 (twelve) month period. 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 sands 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.

**LABEL TRACKING INFORMATON (24)**

Label Code: 2/14/08

Replaces Label Code: 2/08/08

EPA Approval Date:

Authority, AUTHORITY ASSIST and FMC – Trademarks of FMC Corporation, Philadelphia, PA 19103 USA  
Roundup Ready – Trademark of Monsanto Technology LLC, St Louis, MO 63167 USA

FMC Corporation  
Agricultural Products Group  
1735 Market Street  
Philadelphia PA 19103  
215-299-6000

©2007 FMC Corporation All Rights Reserved