



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

OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION

Shannon Yanocha FMC Corporation 1735 Market Street Philadelphia, PA 19103

FEB 0 6 2013

Subject:

Label Amendment

Product Name: Gauntlet 70 DF Herbicide EPA Registration Number: 279-3246 Application Dated: November 20, 2012

Dear Ms. Yanocha,

The labeling referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), as amended, is acceptable.

A stamped copy of your label is enclosed for your records. This label supersedes all previously accepted labels. You must submit one (1) copy of the final printed label before you release the product for shipment. Products released for shipment after eighteen (18) months from the date of this letter or the next printing of the label, whichever occurs first, must bear the new revised label. If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA §6(e). Your release for shipment of the product constitutes acceptance of these conditions.

If you have any questions, please contact Emily Hartman via email at hartman.emily@epa.gov or by phone at (703) 347-0189.

Sincerely.

Kathryn V Montague, Project Manager 23

Herbicide Branch Registration Division

Office of Pesticide Programs



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

EPA Reg. No. 279-3246

EPA Est. 279-IL-1

Active Ingredient: (1)	By Wt.
Sulfentrazone*	62.1%
Cloransulam-methyl*	7.9%
Other Ingredients:	
J	100.0%

\*Authority First DF Herbicide contains 0.7 pounds of active ingredient per pound of product (0.62 pounds ai of sulfentrazone and 0.08 pounds of ai of

# KEEP OUT OF REACH OF CHILDREN **CAUTION**

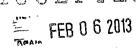
FIRST AID (2)
If Inhaled: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice.

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



Under the Federal Insecticide, Net Contents: 5 Pounds etc., and sometime Act, us constated, for the posticida

379-3246



**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

Section Title/ (Section Number) Active Ingredient (1) Agricultural Use Requirements (9) Application Information (18) Attention (4) Conditions of Sale and Limitation of Warranty (11) Directions for Use (14) Environmental Hazards (7) First Aid (2) Product Information (15) Hot Line Number (3) Label Tracking (25) Mixing and Loading Instructions (20) Physical/Chemical Hazards (8) PPE Requirements (6) Precautionary Statements (5) Restricted Entry Interval (REI) (10) Resistance Management (13) Soybeans (22) Spray Equipment Clean-out (21) Spray Drift Reduction Advisory (19)	Page 1 2 3 1 2 3 2 1 3 1 6 4 2 2 2 2 3 5 5 4 2
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, waterproof gloves, and shoes plus socks.

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

## User Safety Recommendations

Users should:

- Wash hands before eating, drinking, chewing gum, using
- vosal in lands before earling, drinking, criewing guill, 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

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.

<u>Surface water advisory:</u> 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 postapplication. 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 infield canals or ditches that drain to surface water, areas not separated from adjacent surface waters with vegetated filter strips, and areas over-lying tile drainage systems that drain to surface

## Physical/Chemical Hazards (8)

Do not use or store near heat or 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. 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, waterproof 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 should 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 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 structure has been used contrary to label instructions, or under 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 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.

Do not store below 40° F (4° C).

### In Case of Spill

Avoid contact, isolate area and keep out animals and unprotected persons. Confine spills. Call CHEMTREC (Transportation and spills): (800) 424-9300.

## To Confine Spill

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 package in a 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 cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency or the Hazardous Waste representative at the nearest EPA Regional office for guidance.

## Container Disposal

Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: (For containers greater than 5 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 smoke.

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

# **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 high weed pressure, a resistant strain may have abnormally 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.

PRODUCT INFORMATION (15)
Authority First DF Herbicide is for preemergence control of broadleaf and grass weeds in soybeans only.

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

Authority First DF 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 First DF, 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 First DF.

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

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

Do not use flood irrigation to apply or incorporate this product

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

ROTATIONAL CROP GUIDELINES (16)
Shown below are the minimum intervals in months from the time of Authority First DF Herbicide application until Authority First DF treated soil may be replanted with the crops listed. When Authority First DF Herbicide is tank mixed with other herbicide(s), refer to all the labels for re-cropping instructions, following the intervals that are the most restrictive. For crops not listed the interval is 30 months and a successful field bioassay.

Crop	Interval (Months)
Alfaifa	12
Barley	12
Canola	24
Corn, Field*	10
Corn, Pop*	
Corn, Seed*	
Corn, Sweet	
Cotton	18 or 12 <sup>†</sup>
Dry shelled beans and peas	12
Oats	
Peanuts	
Potatoes	
Rice	10
Rye	
Sorghum	
Sovbeans	Anvtime
Sugar beets**	
Sunflower**	
Tobacco***	
Wheat	

 $^\star$  Corn (including field corn, popcorn and seed corn): Observe an 18 month rotational interval if 6.45 – 8.0 oz. of Authority First DF Herbicide is applied to soils of 1.5% organic matter or less, and pH is above 7.

Hybrid Seed Production: Corn inbred lines grown for hybrid seed production may be injured the growing season following an application of Authority First DF Herbicide. 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 First DF Herbicide.

\*\*These crops require a 30-month rotational interval and a successful field bioassay.

\*\*\*\* Transplanted tobacco may be planted 10 months after application of a maximum application rate of 3.0 ounces per acre of Authority First DF. Tobacco in seedbed nurseries may be replanted 18 months after applications of 3.0 ounces per acre of Authority First and following a successful field bioassay. A rotational interval of 30 months and a successful field bioassay is required for all applications of Authority First greater than 3.0 ounces per acre.

Cotton may be planted after 12 months where Authority First DF Herbicide was applied at rates 5 oz/acre or less and meets the following conditions:

- Medium and fine soils
- Ph < 7.2
- Rainfall or irrigation must exceed 15" after application of Authority First DF Herbicide

## **REPLANTING INSTRUCTIONS (17)**

If the initial planting of soybeans fails to produce a uniform stand, soybeans may be replanted in fields treated with Authority First DF Herbicide alone. Do not retreat fields with a second application of Authority First DF Herbicide. 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 ROTATIONAL CROP GUIDELINES on the Authority First DF Herbicide 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. APPLY WITH GROUND SPRAYERS ONLY

Use a standard low pressure herbicide boom sprayer equipped with suitable nozzles and screens. Apply uniformly using properly calibrated nozzles (10 to 40 psi) and screens and strainers no finer than 50 mesh. Use 10 to 40 gallons of spray solution per acre. Do not exceed 40 psi spray pressure unless required by the spray nozzle manufacturer

Continuous agitation during application is required. Avoid swath overlaps. Shut off spray booms while turning, slowing or stopping, as over application may result. Do not allow Authority First DF spray mixtures to sit overnight as settling of product and difficulty of resuspending may occur.

To avoid injury to sensitive crops, spray equipment used for Authority First DF Herbicide 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

## **RUNOFF AND WIND EROSION PRECAUTIONS**

Do not apply under conditions which favor runoff or wind erosion of soil containing Authority First DF 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 product 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 First 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 INSTRUCTIONS AND LOADING INSTRUCTIONS (20)

Authority First DF Herbicide Applied Alone
Select the proper Authority First DF Herbicide 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 First DF Herbicide 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 First DF Herbicide spray mixture immediately after mixing. Do not store mixture.

## Authority First DF Applied in Tank Mix Combination

Select the proper Authority First DF Herbicide 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 First DF Herbicide 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 day formulations (a gravettable products of 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 First DF Herbicide tank mixtures immediately after mixing. Do not store tank mixtures.

## **Fertilizer Spray Mixtures**

Applications of Authority First DF Herbicide 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.

- Put 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).

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
Г	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 First DF Herbicide Applied Alone with Liquid Fertilizer In order to add Authority First DF Herbicide to a liquid fertilizer carrier, Authority First must be premixed in a slurry of product and clear

Fill the spray tank one-half full with fertilizer solution. With agitator operating, add the Authority First DF Herbicide slurry to the spray

Use a minimum of one gallon of water for each container of Authority First DF Herbicide. 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 First DF Herbicide spray mixture immediately after mixing. Do not store mixture.

Authority First DF Herbicide Applied in Tank Mix Combinations Fill the spray tank one-half full with fertilizer solution. With the agitator operating, add a slurry of Authority First DF Herbicide as described in

the preceding paragraph. Next dilute the individual tank mix partners with sufficient water to form a free flowing dispersion, 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 First DF Herbicide tank mixtures immediately after mixing. Do not store tank mixtures.

SPRAYER EQUIPMENT CLEAN-OUT (21)
After spraying Authority First DF Herbicide and before using sprayer equipment for any other applications, the sprayer must be thoroughly cleaned using the following procedure:

- 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.
- 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 minute's to flush hoses, boom, and nozzles.
- 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.
- Before using the sprayer, drain the sprayer 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 ...
- 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.

## SOYBEANS (Conventional and GMO) (22) TIMING AND METHOD OF APPLICATION

Authority First may used alone or in tank mixture combinations for the control of the weeds listed in conventional or GMO soybean varieties. Application Rates:

Soil Organic	Authority First DF	Product U (Pound Active Inc	Jse Rates predient Per Acre)
Matter*	(Dry Ounces per Acre)**	Sulfentrazone	Cloransulam- methyl
3% or less	6,45	0.25	0.032
Greater than 3%	8.00	0.31	0.040
*Do not apply Authority First DF Herbicide to soils classified as sand with less than 1% organic			

matter

\*\*Maximum application rates: See Preplant Surface and Preemergence Application below for specific recommendations

Preplant Incorporated Application
Apply Authority First DF Herbicide alone or in tank mix combination with other herbicides registered for preplant incorporated application to soybeans. Incorporate the herbicide(s) into the top 1 to 3 inches of the final seedbed using equipment that provides thorough soil mixing. When Authority First DF Herbicide is applied in tank mix combination with other herbicide(s), follow the incorporation directions for the tank mix partner(s). Follow applicable use instructions, including application rates, precautions and restrictions of each product used in the tank mixture.

Preplant Surface Application
Apply Authority First DF Herbicide alone or in tank mix combination with other herbicides registered for preplant soil surface application to with other herbicides registered for preparts off surface application to soybeans. If applied in tank mix combination, follow use instructions, including application rates (note: apply 1/2 of the maximum application rate for suppression of weeds in Roundup Ready soybeans, maintaining control with sequential application(s) of registered postemergence herbicides), precautions and restrictions of each product used in the tank mixture.

Preemergence Application

Apply at planting time or within 3 days after planting. Authority First DF Herbicide may be applied alone or in tank mix combination with other herbicides registered for preemergence application to soybeans. When applied in tank mix combination, follow applicable use instructions, including application rates (note: apply 1/2 of the maximum application rate for suppression of weeds in Roundup Ready soybeans, maintaining control with sequential application(s) of

registered postemergence herbicides). Observe the precautions and restrictions of each product used in the tank mixture. Apply before planting, at planting time or prior to seed germination. Properly closed seed furrows are necessary when applying at planting time of before seed germination. Do not apply later than 3 days after planting (or after seed germination), as crop injury may result.

Weeds Controlled (23)

When used as directed above, Authority First DF Herbicide will provide control or suppression of the following broadleaf weeds and

grasses.	
Common Name	Scientific Name
Broadleaves	
Amaranth, Palmer	Amaranthus, Palmer
Amaranth, spiny	Amaranthus, spinosus
Alloda, spulled	Anoda cristata  Desmondiom tortuosum
Beggarweed, Florida Carpetweed	Mollugo verticillata
Cocklebur, common	Xanthium Pensylvanicum
Copperleaf, Hophornbeam	Acalypha ostryeafolia
Croton, tropic	Croton glandulosus
Daisy, American	Eclipta alba
Dayflower, common	Commelina communis
Galinsoga, hairy Groundcherry, clammy	Galinsoga ciliata Physalis heterophylla
Groundcherry, cutleaf	Physalis ineterophylia  Physalis angulata
Horseweed (Marestail)* *	Hippuris vulgaris
Jimsonweed	Datura stramonium
Kochia	Kochia scoparia
Ladysthumb	Polygonum persicaria
Lambsquarters, common	Chenopodium album
Mallow, Venice Mexicanweed	Hibiscus trionum  Caperonia castanaefolia
Morningglory, entireleaf	Ipomea hederacea integriusc
Morningglory, ivyleaf	Ipomea hederacea hederacea
Morningglory, palmleaf	Ipomea Wrightii
Morningglory, pitted *	Ipomea, lacunosa
Morningglory, purple	Ipomea turbinata
Morningglory, red	Ipomea coccinea
Morningglory, smallflower Morningglory, tall	Jacquemontia tamnifolia
Mustard, wild	Ipomea, purpurea Brassica kaber
Nightshade, Eastern black	Solanum americanum
Nightshade, hairy	Solanum sarrachoides
Nightshade, silverleaf	Solanum elaeagnifolicum
Pigweed, redroot	Amaranthus retroflexus
Pigweed, smooth	Amaranthus hybridus
Pigweed, tumble Poorjoe	Amaranthus albus Diodia teres
Purslane, common	Portulaca oleracea
Pusley, Florida	Richardia scabra
Ragweed, common **	Ambrosia artemisiifolia
Ragweed, giant **	Ambrosia trifida
Senna, coffee	Cassia occidentalis
Teaweed	Sida, prickly
Smartweed, PA Smellmelon	Polygonum pensylvanicum Cucumis melo
Spurge, spotted	Euphorbia maculata
Starbur, bristly	Acanthospermum hispidum
Sunflower, common	Helianthus annuus
Thistle, Russian	Salsola kali
Velvetleaf	Abutilon theophrasti
Waterhemp, common	Amaranthus rudis
Waterhemp, tall	Amaranthus tuberculatos
Grasses Barnyardgrass*	Echinochloa crus-galli
Broadleaf signalgrass	Brachiaria platyphylla
Crabgrass, large	Digitaria sanguinalis
Crabgrass, smooth	Digitaria ischaemum
Crabgrass, southern*	Digitaria ciliaris
Crowfootgrass*	Dactyloctenium aegyptium
Foxtail, giant*	Setaria faberi
Foxtail, Green	Setaria viridis
Foxtail, yellow* Goosegrass	Setaria lutescens Eleusine indica
Johnsongrass, seedling *	Sorghum halapense
Orchardgrass	Dactylis glomerata
Panicum fall	Panicum dichotomiflorum
Panicum, Texas	Panicum texanum
Sedges	
Nutsedge, purple	Cyperus rotundus
Nutsedge, yellow	Cyperus esculentus Cares spp.
Sedge, annual	Οσιεό όμμ.

\* Provides suppression or partial control only
\* \* Will not control ALS resistant biotypes of these weed species

Reduced Rates for Roundup Ready Soybeans

Authority First DF Herbicide may be used at reduced rates in conjunction with planned follow-up weed control applications with glyphosate based products such as Glyphomax XRT, Durango, Roundup or other glyphosate herbicide products labeled for use on Roundup Ready soybean varieties. Follow all Authority First DF application directions. Authority First DF will not control or reduce competition from ALS resistant biotypes.

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

## Reduced Rate Application Rates

Soil Organic Matter*	Authority First DF (Dry Ounces per		Jse Rates gredient Per Acre)
Watter	Acre)	Sulfentrazone	Cloransulam-methyl
3% or less	3.00 - 5.00	0.116 - 0.193	0.015 - 0.025
Greater than 3%	4.00 - 6.00	0.155 - 0.233	0.020 - 0.030

\*Do not apply Authority First DF Herbicide to soils classified as sand with less than 1% organic matter.

**Preplant Burndown Application** 

Preplant Burndown Application
Authority First DF Herbicide, used at 6.45 – 8.0 oz./acre as in the For All Soybeans Application Rates chart above, aids in the burndown of weeds listed below, when applied as follows. Thorough coverage is essential. Apply a minimum of ten gallons per acre finished spray volume. Use a non-ionic surfactant (NIS) having at least 80% active ingredient strength at 0.125-0.25% v/v (1-2 pints per 100 gallons of spray solution) plus ammonium sulfate (AMS) at 2.5% v/v. Crop oil concentrate (COC) at 1.2% v/v plus ammonium sulfate may be used. Burndown results may be slowed or reduced when the growth of the weeds is affected by unusual environmental factors just prior to or after application such as especially cool or widely fluctuating day and after application such as especially cool or widely fluctuating day and night air temperatures, drought, heat stress, or waterlogged soils. For complete burndown of emerged annual grasses or broadleaf weeds and to broaden the spectrum of weeds controlled, Authority First DF Herbicide may be tank mixed with other herbicides such as Aim EW Herbicide, 2,4-D products, glyphosate products, glufosinate or paraquat products to achieve acceptable control of existing weeds during application.

## Weeds Controlled

When used as directed for burndown, Authority First DF Herbicide will aid in the control or suppression of the following broadleaf weeds.

Common Name	Scientific Name
Broadleaves	
Cocklebur, common	Xanthium Pensylvanicum
Horseweed (Marestail) **	Hippuris vulgaris
Jimsonweed	Datura stramonium
Mallow, Venice	Hibiscus trionum
Morningglory, entireleaf	Ipomea hederacea tinegrisc
Morningglory, ivyleaf	Ipomea hederacea hederacea
Morningglory, palmleaf	Ipomea Wrightii
Morningglory, pitted *	Ipomea lacunosa
Morningglory, purple	Ipomea turbinata
Morningglory, red	Ipomea coccinea
Morningglory, smallflower	Jacquemontia tamnifolia
Morningglory, tall	Ipomea purpurea
Ragweed, common * *	Ambrosia artemisiifolia
Ragweed, giant * *	Ambrosia trifida
Sicklepod	Cassia obtusifolia
Smartweed, PA	Polygonum pensylvanicum
Sunflower, common	Helianthus annuus
Velvetleaf *	Abutilon theophrasti

\*For Velvetleaf control, use 28% nitrogen (UAN) or AMS with NIS or COC.

\* \* Authority First DF will not control ALS resistant biotypes of these weed species

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

## Restrictions (24)

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 8.0 ounces of Authority First DF per acre per season (as a cumulative total of Authority First DF Herbicide soil application and FirstRate post-emergence application (1 oz/acre Authority First DF Herbicide contains 0.005 lb a.i. cloransulammethyl, and 0.3 oz/acre FirstRate contains 0.016 lb a.i. cloransulammethyl. Do not apply more than 0.055 lb. active ingredient (a.i.) per acre of cloransulam-methyl in a single growing season).

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

Do not harvest soybeans for 65 days after application of Authority First DF Herbicide.

Do not apply Authority First DF Herbicide 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

Authority, Authority First DF Herbicide and FMC — Trademarks of FMC Corporation, Philadelphia, PA 19103 USA FirstRate, Glyphomax XRT and Durango - Trademarks of Dow

AgroSciences LLC, Indianapolis, IN 46268 USA.
Roundup and Roundup Ready – Tradema
Technology LLC, St Louis, MO 63167 USA
Sharpen – Trademark of BASF Trademarks of Monsanto

## LABEL TRACKING INFORMATON (25)

Label Code: 012313

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

©2012 FMC Corporation All Rights Reserved