

264-766

11-12-2009

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

NOV 12 2009

OFFICE OF  
PREVENTION, PESTICIDES AND  
TOXIC SUBSTANCES

Mr. Mike See  
Bayer Cropscience  
2 T.W. Alexander Drive, PO Box 12014  
Research Triangle Park, NC 27709

Subject: Axiom DF Herbicide  
EPA Registration Number 264-766  
Submission dated August 10, 2009

Dear Mr. See:

The labeling referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act as amended is acceptable, provided you make the following changes before you release the product for shipment.

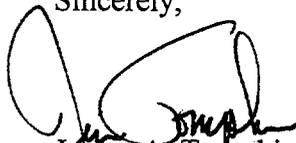
1. Add an appropriate EPA Establishment Number to the label
2. Add "exists" after "washables" on page 2
3. Add "/PPE" after "Remove clothing" in the second bullet of the User Safety Recommendations
4. Move the statement "Do not contaminate water when disposing of equipment washwaters or rinsate" to directly following the statement "Do not allow sprays to drift onto adjacent desirable plants" in the Environmental Hazards section
5. On page 3, revise "is recommended for" to "may be used"
6. On page 3, add "up until 2 leaves have emerged" at the end of the statement "Application may be made upon wheat germination or later"
7. On page 4, add "up until 2 leaves have emerged" at the end of the statement "Application may be made upon wheat germination or later"
8. On page 11, revise "RATE RECOMMENDATION" to "RATE DIRECTIONS" in the heading of the table
9. On page 17, revise "No label dosage rates should be exceeded" to "Label dosage rates must not be exceeded"
10. On page 22, also identify the corresponding a.i. lb rate when you list the rate in ounces.
11. Move the overall USE RESTRICTIONS section from page 22 to the beginning of the DIRECTIONS FOR USE section.

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EPA Registration Number 264-766

Submit one (1) copy of final printed labeling incorporating the above changes before you release the product for shipment. Amended labeling will supercede all previously accepted ones. A stamped copy of labeling is enclosed for your records. If you have any questions, please contact Hope Johnson at 703-305-5410.

Sincerely,



James A. Tompkins  
Product Manager 25  
Herbicide Branch  
Registration Division (7505P)

with COMMENTS  
in EPA Letter Dated

NOV 12 2009

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

**GROUP 5 15 HERBICIDE**

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# Axiom<sup>®</sup> DF<sup>264-766</sup> Herbicide

For weed control in winter wheat, fall seeded triticale, perennial grasses grown for seed, field corn, and soybeans

## ACTIVE INGREDIENTS:

- Flufenacet  
N-(4-Fluorophenyl)-N-(1-methylethyl)-2-[[5-(trifluoromethyl)-1,3,4-thiadiazol-2-yl]-oxy]acetamide ..... 54.4%
- Metribuzin:  
4-Amino-6-(1,1-dimethylethyl)-3-(methylthio)-1,2,4-triazin-5(4H)-one..... 13.6%

OTHER INGREDIENTS: ..... 32.0%  
100.0%

EPA Reg. No. 264-766

EPA Est. No.

**STOP - Read the label before use**  
**KEEP OUT OF REACH OF CHILDREN**  
**CAUTION**

For MEDICAL And TRANSPORTATION Emergencies ONLY Call 24 Hours A Day 1-800-334-7577  
For PRODUCT USE Information Call 1-866-99BAYER (1-866-992-2937)

## FIRST AID

<b>If swallowed</b>	<ul style="list-style-type: none"> <li>• Call a poison control center or doctor immediately for treatment advice.</li> <li>• Have person sip a glass of water if able to swallow.</li> <li>• Do not induce vomiting unless told to do so by a poison control center or doctor.</li> <li>• Do not give anything by mouth to an unconscious person.</li> </ul>
<b>If in eyes</b>	<ul style="list-style-type: none"> <li>• Hold eye open and rinse slowly and gently with water for 15 to 20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
<b>If on skin or clothing</b>	<ul style="list-style-type: none"> <li>• Take off contaminated clothing.</li> <li>• Rinse skin immediately with plenty of water for 15 to 20 minutes.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
<b>If inhaled</b>	<ul style="list-style-type: none"> <li>• Move person to fresh air.</li> <li>• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible.</li> <li>• Call a poison control center or doctor for further treatment advice.</li> </ul>

In case of emergency call toll free the Bayer CropScience Emergency Response Telephone No. 1-800-334-7577.  
Have an Axiom<sup>®</sup> DF Herbicide container or label with you when calling a poison control center or doctor, or going for treatment.

**Note To Physician:** No specific antidote is available. Treat the patient symptomatically.

## PRECAUTIONARY STATEMENTS

### HAZARDS TO HUMANS AND DOMESTIC ANIMALS

#### CAUTION

Harmful if swallowed, inhaled or absorbed through skin. Prolonged or frequently repeated skin contact may cause allergic skin reactions in some individuals. Avoid contact with skin, eyes, or clothing. Avoid breathing dust.

### PERSONAL PROTECTIVE EQUIPMENT

Some of the materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions for category A on an EPA chemical-resistance category selection chart.

#### Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves made of any waterproof material such as polyethylene or polyvinyl chloride
- Shoes plus socks

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

User should:

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

### ENVIRONMENTAL HAZARDS

Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not apply when weather conditions favor drift from areas treated. Do not allow sprays to drift onto adjacent desirable plants.

Metribuzin has properties that may result in ground water contamination. Application in areas where soils are permeable or coarse and groundwater is near the surface could result in groundwater contamination.

**Ground Water:** Flufenacet is known to leach through soil into ground water 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 ground-water contamination. Do not contaminate water when disposing of equipment washwaters or rinsate.

**Surface Water:** Flufenacet and metribuzin residues can contaminate surface water through spray drift. Under some conditions, they also have high potential for runoff into surface water (primarily via dissolution in runoff water or erosion), 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 ground water, 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.

### DIRECTIONS FOR USE

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

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

### AGRICULTURAL USE REQUIREMENTS

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

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

**Exception:** If the product is soil-injected or soil-incorporated, the Worker Protection Standard, under certain circumstances, allows workers to enter the treated area if there will be no contact with anything that has been treated.

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
- Chemical-resistant gloves made of any waterproof material
- Shoes plus socks

### STORAGE AND DISPOSAL

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

**Pesticide Storage:** Store in a cool, dry place and in such a manner as to prevent cross contamination with other pesticides, fertilizers, food, and feed. Store in original container and out of the reach of children, preferably in a locked storage area.

Handle and open container in a manner as to prevent spillage. If the container is leaking or material spilled for any reason or cause, carefully sweep material into a pile. Refer to Precautionary Statements on label for hazards associated with the handling of this material. Do not walk through spilled material. Dispose of pesticide as directed below. In spill or leak incidents, keep unauthorized people away. You may contact the Bayer CropScience Emergency Response Team for decontamination procedures or any other assistance that may be necessary. The Bayer CropScience Emergency Response Telephone No. is 1-800-334-7577.

**Pesticide Disposal:** Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

**Container Disposal:** Non-refillable container. Do not reuse or refill this container. Offer for recycling, if available. Completely empty bag into application equipment. Then dispose of empty bag in a sanitary landfill or by incineration, or if allowed by State and local authorities, by burning. If burned, stay out of smoke.

### INFORMATION

Axiom<sup>®</sup> DF Herbicide is a selective herbicide for control of many annual grasses and certain broadleaf weeds in winter wheat and fall seeded triticale, perennial grasses grown for seed, field corn, corn grown for silage, and soybeans.

### ENVIRONMENTAL AND BIOLOGICAL ACTIVITY

Axiom<sup>®</sup> DF Herbicide controls weeds by interfering with seed germination and seedling development. Axiom<sup>®</sup> DF Herbicide contains two different active ingredients with different modes of action for weed control. Flufenacet is an oxyacetamide, (Group 15) which inhibits cell division and metribuzin is a triazinone, (Group 5) a PSII Site A inhibitor. Axiom<sup>®</sup> DF Herbicide acts primarily as a shoot inhibitor on susceptible weeds. It is important for best weed control results to have Axiom<sup>®</sup> DF Herbicide in place and activated with moisture **prior** to weed emergence.

### AXIOM<sup>®</sup> DF HERBICIDE USE IN WINTER WHEAT AND FALL SEEDED TRITICALE

Axiom<sup>®</sup> DF Herbicide is recommended for control of certain annual grass and broadleaf weeds when applied after the crop has fully germinated to early postemergence in winter wheat. Axiom<sup>®</sup> DF Herbicide may be applied either alone, in tankmix combination and in a sequential herbicide program with other registered herbicides.

### CROP

Plant wheat at a depth of 1 – 2 inches. Axiom<sup>®</sup> DF Herbicide may be applied after the crop has fully germinated up to a maximum of 2 leaves emerged. Application to the crop between spiking and 2 leaf is preferred in most areas however, in WA, OR, and ID only, as long as the wheat is planted at a depth of 1.5" or deeper, application may be made upon wheat germination or later.

Excessive rainfall after application may cause crop injury to young seedlings.

**Variety selection:** Commonly grown varieties have shown excellent tolerance to Axiom<sup>®</sup> DF Herbicide but tolerance of all varieties to Axiom<sup>®</sup> DF Herbicide is not known and Axiom<sup>®</sup> DF Herbicide may cause crop injury. You should consult with local Cooperative Extension agent or Bayer CropScience representative for specific regional information. If a variety or hybrid has not been tested (especially newly released varieties), treat only a small area until tolerance is confirmed before treating large acreages.

**AXIOM® DF HERBICIDE USE RATES**

Axiom® DF Herbicide use rates are based on soil type. Select the appropriate rate from the following table:

AXIOM® DF HERBICIDE IN WINTER WHEAT		
Axiom® DF Herbicide Broadcast Rates/A		APPLICATION TIMINGS AND REMARKS
Soil Texture	Rate (oz of Axiom® DF Herbicide/A)	
<b>Coarse Texture</b> (Sand, Loamy sand and Sandy loam)	4 – 6	Apply specified rate for soil type as a uniform broadcast spray using 10 or more gallons of water per acre.  Do not add crop oil concentrates, vegetable oils and/or petroleum oils to the tankmixture as crop injury may occur.  Crop Timing: Wheat at spiking – 2 leaf *  Weed Timing: Preemergence up to 1 leaf
<b>Medium Texture</b> (Loam, Silt loam, Silt, Sandy clay loam and Sandy clay)	6 - 8	
<b>Fine Texture</b> (Silty clay loam, Silty clay, Clay loam and Clay)	8 – 10	

- In WA, OR, and ID only, as long as the wheat is planted at a depth of 1.5" or deeper, application may be made upon wheat germination or later.

**WEED CONTROL**

Axiom® DF Herbicide is applied preemergence to the weeds for the control of many important annual grass and broadleaf species. For most thorough weed control results, Axiom® DF Herbicide followed by a postemergence herbicide application is recommended.

Axiom® DF Herbicide is applied and subsequently moved into the soil by rainfall, sprinkler irrigation prior to weed emergence. Less than 1/2 inch of rainfall or irrigation within 2 weeks following application may result in reduced weed control.

Weed control may be reduced if excessive straw from the previous crop is present at Axiom® DF Herbicide application. If excessive straw is present, uniformly spread the straw across the field, and/or remove/burn the straw prior to application.

**Best Management Practices:**

- 1) Control any emerged weeds at or prior to planting by tillage or through the application of a nonselective herbicide
- 2) Make Axiom® DF Herbicide applications prior to the 1-leaf stage of growth of the weed
- 3) Use the highest specified rate by soil type
- 4) Follow the Axiom® DF Herbicide treatment with a postemergence application of a herbicide such as Osprey or Olympus Flex to control weeds that may emerge later

**WEEDS CONTROLLED PREEMERGENCE BY AXIOM® DF HERBICIDE**

Weeds Controlled	
ANNUAL GRASSES	ANNUAL BROADLEAF WEEDS
Bluegrass, annual ( <i>Poa annua</i> ) Canarygrass, hood ( <i>Phalaris paradoxa</i> ) Fescue, rattail ( <i>Vulpia myuros</i> ) Ryegrass, Italian ( <i>Lolium multiflorum</i> )*	Chickweed, mouseear ( <i>Cerastium vulgatum</i> ) Falseflax, smallseed ( <i>Camelina microcarpa</i> ) Henbit ( <i>Lamium amplexicaule</i> ) Mustard, blue ( <i>Chorispora tenella</i> ) Mustard, tumble ( <i>Sisymbrium altissimum</i> ) Radish, wild ( <i>Raphanus raphanistrum</i> )

\* In many instances, commercially acceptable control of annual ryegrass will require a sequential application of a postemergence herbicide such as Osprey or Olympus Flex in the spring.

**WEEDS PARTIALLY CONTROLLED BY AXIOM® DF HERBICIDE**

Axiom® DF Herbicide applied up to early postemergence of weeds at specified rates will partially control many annual grass and broadleaf weeds.

Weeds Partially Controlled	
ANNUAL GRASSES	ANNUAL BROADLEAF WEEDS
Barley, foxtail ( <i>Hordeum jubatum</i> )	Chickweed, common ( <i>Stellaria media</i> )
Blackgrass ( <i>Alopecurus myosuroides</i> )	Fiddleneck, coast ( <i>Amsinckia intermedia</i> )
Brome, downy ( <i>Bromus tectorum</i> )	Fiddleneck, tarweed ( <i>Amsinckia lycopsoides</i> )
Brome, ripgut ( <i>Bromus rigidus</i> )	Lambsquarters, common ( <i>Chenopodium album</i> )
Brome, soft ( <i>Bromus mollis</i> )	Pigweed spp. ( <i>Amaranthus</i> spp.)
Bromegrass, California ( <i>Bromus carinatus</i> )	Shepherdspurse ( <i>Capsella bursa-pastoris</i> )
Crabgrass, large ( <i>Digitaria sanguinalis</i> )	
Foxtail, spp. ( <i>Setaria</i> spp.)	
Oat; wild ( <i>Avena fatua</i> )	
Windgrass ( <i>Apera spica-venti</i> )	

Partially controlled weeds will be stunted in growth and/or be reduced in number as compared to non-treated areas but performance may not be commercially acceptable. Weed control may vary from poor to excellent depending on soil characteristics, stage of growth at application and environmental conditions at and following application.

**HERBICIDE TANKMIXES WITH AXIOM® DF HERBICIDE**

To expand the spectrum of weed control of both annual grasses and broadleaf weeds, Axiom® DF Herbicide may be tank mixed with other preemergence herbicides. Use of crop oil concentrates, vegetable oils and/or petroleum oils are *not* recommended as crop injury is likely.

With all tankmix partners, read and follow use directions, rates, precautions, timing, recropping restrictions, grazing interval restrictions and recommendations on the respective labels.

**Possible tank-mix partners include:**

Amber	Finesse
Glean	Sencor*

\* For use in WA, ID and OR Only: Axiom® DF Herbicide may be tank-mixed with Sencor (or an equivalent metribuzin product) at the appropriate rate for soil type but the total amount of active ingredient metribuzin may not exceed 0.5 lb metribuzin per acre per 365 day period.

**AXIOM FOLLOWED BY POSTEMERGENCE HERBICIDES**

For most thorough weed control results, Axiom® DF Herbicide followed by a postemergence herbicide application is recommended. Axiom is applied as directed and then followed by application of other herbicides postemergence to the crop and weeds.

Suggested postemergence products include: Osprey, Olympus Flex, Olympus, Sencor\* and Hoelon. Refer to the individual product labels for instructions on specified use rates, precautions and/or restrictions.

For sequential applications of Axiom® DF Herbicide and Sencor (or equivalent metribuzin product), do not exceed a total of 0.5 pounds of metribuzin active ingredient per 365 day period. Allow a minimum of 21 days between sequential applications of Axiom® DF Herbicide and Sencor if wheat is actively growing, or 45 days between applications if wheat has entered dormancy or is stressed by frost, disease, insects, drought, excessive moisture, or any other stress factor. Crop injury may occur with this treatment.

**WEED RESISTANCE**

Repeated use of herbicides with the same mode of action allows resistant weeds to spread. To manage the spread of resistant weed populations, use herbicides with different modes of action in tank mixture, rotation, or in conjunction with alternate cultural practices.

Axiom® DF Herbicide contains two active ingredients with two different modes of action for weed control. Flufenacet is an oxyacetamide which inhibits cell division and metribuzin is a triazinone, a PSII Site A inhibitor.

The use of Axiom® DF Herbicide should conform to resistance management strategies established for the use area. You should consult your agricultural advisor for resistance management strategies and recommended pest management practices for your area.

## MIXING INSTRUCTIONS

Always follow the label instructions of the tankmix partner as well as Axiom® DF Herbicide. Compatibility of Axiom® DF Herbicide or its labeled tank mix products with should always be predetermined prior to spraying. Check the compatibility Axiom® DF Herbicide and the tankmix partner(s) by mixing all components in the order specified in the **Mixing Order** section and water, in a small separate container to evaluate compatibility prior to adding them to the tank.

Axiom® DF Herbicide is a dry flowable herbicide that must be mixed in water. For optimal spray tank mixing convenience and efficiency, Axiom® DF Herbicide is recommended to be added to the spray tank via an eductor system.

Before mixing Axiom® DF Herbicide and its labeled tank mix partners, examine the spray equipment making sure it is completely clean and free of rust or corrosion. Be sure the equipment is free of any residues from previously used pesticides. Flush lines with clean water or recommended detergents after the last application. Use an approved method for disposing of rinsate.

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

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

This 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.

## MIXING ORDER

The proper mixing sequence for Axiom® DF Herbicide and recommended tank mixtures with water carrier is as follows:

1. Fill sprayer tank to ¼ to ½ full with water. Start the agitation.
2. Slowly add required Axiom® DF Herbicide through the eductor system or to the spray tank slowly while agitation is running.
3. If tank mixing with wettable powders or other dry flowable products, they may be added now.
4. If tank mixing with emulsifiable concentrates or soluble products, add the products to the spray tank now.
5. Complete addition of water to fill the sprayer tank.
6. Vigorously agitate spray tank contents for an additional 5 minutes prior to beginning application.
7. Maintain agitation until application of sprayer contents is complete.

Axiom® DF Herbicide and all registered mixtures should be kept agitated once mixed and then sprayed immediately. Upon completion of application of each spray tank, check and clean 50 mesh in line filter(s). Repeat this step following each load. It is recommended to check individual nozzle filters every third tankload. Do not allow mixtures to stand for prolonged periods of time, no more than 12 hours.

## APPLICATION INFORMATION

Apply Axiom<sup>®</sup> DF Herbicide alone or in combination with recommended tank mixes as a broadcast spray in 10 or more gallons of water per acre. Rainfall and/or overhead sprinkler irrigation is necessary to move Axiom<sup>®</sup> DF Herbicide into the upper soil surface where weed seeds germinate.

**GROUND APPLICATION:** Axiom<sup>®</sup> DF Herbicide may be applied by ground equipment only. Apply as a broadcast spray by ground equipment in 10 or more gallons of water per acre.

Confirm that spray tank is equipped with either a sparge tube agitator, mechanical agitation devices or jet agitator devices that are capable of providing vigorous agitation while mixing. Accurately calibrate the sprayer prior to mixing the herbicide treatment to deliver the product(s) in at least 10 GPA of water.

The use of screens to protect the pump and nozzles is recommended. Screens placed on the suction side of the pump should be 16-mesh or coarser. Equip sprayer with 50 mesh in line filter(s) located between the pump discharge and the spray boom. This filter may be located prior to each spray boom section. If nozzle filters are used, use 50 mesh or coarser nozzle filters as recommended by nozzle manufacturer. Do not place a screen in the recirculation line. Application must be made at a sufficient spray pressure and volume to provide accurate and uniform application of spray particles to a given area without causing spray drift to non-target areas.

Refer to the nozzle manufacturer for proper nozzle, pressure setting and sprayer speed for optimum product performance and minimal spray drift. Maintain consistent ground speed while applying product to ensure proper distribution.

Agitate thoroughly before and during application with either bypass or mechanical agitation. Maintain adequate in-tank agitation to keep the spray mixture in suspension and provide a minimum of 20% bypass at all times.

## TANK CLEANUP PROCEDURE

1. Drain the tank completely, and then wash out tank, boom and hoses with clean water. Drain again.
2. Half fill the tank with clean water and add ammonia (i.e., 3% domestic ammonia solution) at a dilution rate of 1% (i.e., 1 gallon of domestic ammonia for every 100 gallons of rinsate). Complete filling of the tank with water. Agitate/recirculate and flush through boom and hoses. Leave agitation on for 10 minutes. Drain tank completely.
3. Repeat step 2.
4. Remove nozzles and screens and soak them in a 1% ammonia solution. Inspect nozzles and screens and remove visible residues.
5. Flush tank, boom, and hoses with clean water.
6. Inspect tank for visible residues. If present, repeat step 2.

## PRECAUTIONS FOR AXIOM USE IN WINTER WHEAT AND FALL SEEDED TRITICALE

- Certain winter wheat varieties may be sensitive to Axiom<sup>®</sup> DF Herbicide. Not all available winter wheat varieties and hybrids may have been tested for tolerance. If a variety or hybrid has not been tested (especially newly released varieties), treat only a small area until tolerance is established before treating large acreages.
- A field bioassay must be conducted for crops not listed on this label and for crops listed on the label for which a shorter plant-back interval than listed is desired.

## RESTRICTIONS FOR AXIOM USE IN WINTER WHEAT AND FALL SEEDED TRITICALE

- Do not apply Axiom<sup>®</sup> DF Herbicide by air or through any type of irrigation equipment.
- Do not apply to wheat seeded at a depth of less than 1 inch.
- Do not apply more than 10 ounces of Axiom<sup>®</sup> DF Herbicide per acre per use season.
- Do not apply in tank mixtures with crop oil concentrates (COC), vegetable and/or petroleum oils as crop injury may result.
- Regardless of the bioassay results, do not plant any crop other than those listed closer than 4 months after an Axiom<sup>®</sup> DF Herbicide application.
- Do not graze winter wheat within 30 days of Axiom<sup>®</sup> DF Herbicide application.

**CROP ROTATION RESTRICTIONS – ALL USES**

To ensure safety of rotational crops, the following rotational intervals must be followed:

<b>Immediately</b>			
	Corn, Field	Soybean	
<b>7 Days</b>			
	Wheat <sup>1</sup> , Winter	Triticale <sup>1</sup> , Fall -seeded	
<b>1 month</b>			
	Potato		
<b>4 months</b>			
	Carrot	Wheat <sup>2</sup> , Winter	Triticale <sup>2</sup> , Fall -seeded
<b>8 months</b>			
	Cotton		
<b>12 months</b>			
Alfalfa	Clover	Rice	Wild Rice
Barley	Fescue	Rye	Other crops not listed (except root crops)
Bermudagrass	Millet, pearl	Sorghum	
Bluegrass	Millet, prose	Teosinte	
Bromegrass	Oats		
Buckwheat	Popcorn		
<b>18 months</b>			
	Onions	Sugarbeets	Other root crops not listed

<sup>1</sup> Where rates of 10 oz/A or less have been applied.

<sup>2</sup> Where any other labeled rate of Axiom<sup>®</sup> DF Herbicide greater than 10 oz/A has been applied.

In the event of a crop failure after application of Axiom<sup>®</sup> DF Herbicide, only the crops listed above can be planted, after waiting the directed period of time. Do not make a second application of Axiom<sup>®</sup> DF Herbicide.

In areas where a rotation to a desired crop is not specified, conduct a field bioassay as described in the **FIELD BIOASSAY** section of this label.

**FIELD BIOASSAY**

A field bioassay must be conducted for crops not listed on this label and for crops listed on the label for which a shorter plant-back interval than listed is desired.

To conduct a field bioassay, plant strips of the crop you want to grow the season following Axiom<sup>®</sup> DF Herbicide application. Monitor the crop for response to Axiom<sup>®</sup> DF Herbicide treatment to determine if the crop can be grown safely in previously treated Axiom<sup>®</sup> DF Herbicide areas.

Regardless of the bioassay results, do not plant any crop other than those listed closer than 4 months after an Axiom<sup>®</sup> DF Herbicide application.

**AXIOM USE IN ANNUAL AND PERENNIAL GRASSES GROWN FOR SEED**

Axiom® DF Herbicide may be applied to certain annual and established perennial grasses grown for seed for the management of broadleaf weeds and volunteer grasses.

**ANNUAL GRASSES GROWN FOR SEED Oregon only**

In the state of Oregon, Axiom® DF Herbicide may be applied as a shielded banded treatment in annual ryegrass grown for seed.

Row Spray Application - For Use in Annual Ryegrass grown for seed.

Crop	Axiom® DF Rate (oz per acre)
Annual Ryegrass	8 to 10

**REMARKS**

Apply specified rate per **treated** acre as a band spray application to remove unwanted excessive volunteer annual ryegrass, and weeds such as annual bluegrass from the treated bands. Apply using shielded sprayers to prevent drift to unsprayed rows where the desired seed grass crop is grown.

Use the following formula to calculate the amount of Axiom® DF Herbicide needed for band treatments:

$$\frac{\text{Band width in inches}}{\text{Row width in inches}} \times \frac{\text{Broadcast rate}}{\text{per A}} = \frac{\text{Band rate}}{\text{per A}}$$

Use with a registered contact herbicide such as glyphosate to remove volunteers and weeds which have germinated and emerged prior to treatment.

**WEEDS CONTROLLED OR SUPPRESSED**

*Annual Bluegrass*

*Bromus\**

*Italian (annual) ryegrass*

*Rattail Fescue*

*Rough Bluegrass*

Volunteers of the established crop

\* indicates suppression.

**RESTRICTIONS:**

- Do not allow animals to graze treated fields for a minimum of 30 days following application.
- Do not apply by aerial application.
- Do not make more than one application per season.
- Do not apply more than 10 oz of Axiom DF per acre per use season.
- For all metribuzin products used, do not apply more than a total of 1 lb ai/A per use season of metribuzin.

**SPECIAL PRECAUTIONS:**

Do not apply this product through any type of irrigation equipment. Do not apply in tank-mixture with postemergence herbicides, such as Diuron. Application of oxyfluorfen or photosynthetic inhibiting postemergence herbicides within 4 weeks of Axiom® applications may cause crop damage.

Weed control may be reduced if excessive straw from the previous crop is present at Axiom® application or if insufficient rainfall/irrigation occurs after application.

**PERENNIAL GRASSES GROWN FOR SEED Washington, Oregon- (except for Jefferson County) and Idaho.**

Axiom® DF Herbicide may be applied to established stands of perennial tall fescue, fine fescue, perennial ryegrass, orchardgrass and bluegrass. Use only on fields which are at least one year old or have had at least one seed harvest. Use on perennial ryegrass after the second harvest may result in crop injury.

**WEED CONTROL**

Axiom® DF Herbicide applied early postemergence at specified rates will control many important annual grass and broadleaf weeds. Apply specified dosage as a broadcast spray in labeled perennial grasses prior to weed emergence from the soil up to the 2 leaf stage of growth of volunteer grasses. Applications made after mid-November may result in excessive crop injury and/or failure to control weeds.

Weed control may be reduced if excessive straw from the previous crop is present at Axiom® DF Herbicide application. If excessive straw is present, uniformly spread the straw across the field, and/or remove the straw prior to application.

Axiom® DF Herbicide may be applied in a band between rows in annual ryegrass grown for seed to control unwanted volunteer ryegrass and annual bluegrass from the treated areas.

**WEED CONTROL WITH AXIOM**

<b>Grass Weeds Controlled</b>	
Bluegrass, annual ( <i>Poa annua</i> )	Fescue, rattail ( <i>Vulpia myuros</i> )
Bluegrass, roughstalk ( <i>Poa trivialis</i> )	Ryegrass, Italian ( <i>Lolium multiflorum</i> )
Canarygrass, hood ( <i>Phalaris paradoxa</i> )	

<b>Control of Annual Volunteers of the Established Crop</b>	
Bluegrass ( <i>Poa</i> spp.)	Orchardgrass ( <i>Dactylis glomerata</i> )
Fescue, tall ( <i>Festuca arundinacea</i> )	Ryegrass, perennial ( <i>Lolium perenne</i> )
Fescue, fine ( <i>Festuca tenuifolia</i> )	

<b>Grass Weeds Partially Controlled *</b>	
Barley, foxtail ( <i>Hordeum jubatum</i> )	Bromegrass, California ( <i>Bromus carinatus</i> )
Brome, downy ( <i>Bromus tectorum</i> )	Crabgrass, large ( <i>Digitaria sanguinalis</i> )
Brome, ripgut ( <i>Bromus rigidus</i> )	Foxtail spp. ( <i>Setaria</i> spp.)
Brome, soft ( <i>Bromus mollis</i> )	Oat, wild ( <i>Avena fatua</i> )

<b>ANNUAL BROADLEAF WEED CONTROL</b>	
<b>Controlled</b>	<b>Partially Controlled *</b>
Chickweed, mouseear ( <i>Cerastium vulgatum</i> )	Chickweed, common ( <i>Stellaria media</i> )
Falseflax, smallseed ( <i>Camelina microcarpa</i> )	Fiddleneck, coast ( <i>Amsinckia intermedia</i> )
Henbit ( <i>Lamium amplexicaule</i> )	Fiddleneck, tarweed ( <i>Amsinckia lycopsoides</i> )
Mustard, blue ( <i>Chorispora tenella</i> )	Lambsquarters, common ( <i>Chenopodium album</i> )
Mustard, tumble ( <i>Sisymbrium altissimum</i> )	Pigweed spp. ( <i>Amaranthus</i> spp.)
Radish, wild ( <i>Raphanus raphanistrum</i> )	Shepherdspurse ( <i>Capsella bursa-pastoris</i> )

\* Partially controlled weeds may be stunted in growth and/or be reduced populations as compared to non-treated areas but control will generally not be commercially acceptable.

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### AXIOM® DF HERBICIDE RATE SELECTION

Axiom® DF Herbicide use rates are based on soil type. Do not use on soils with less than 1.0% organic matter, or on soils with a pH greater than 7.5. Do not use on clay knobs or poorly covered subsoils as severe injury may occur. Use on perennial ryegrass after the second harvest may result in crop injury. Use 8 to 10 oz/A to minimize the potential for injury.

Select the appropriate rate from the following table:

RATE RECOMMENDATION FOR AXIOM® DF HERBICIDE in PERENNIAL GRASSES GROWN FOR SEED			
Axiom® DF Herbicide Broadcast Rate Per Acre <sup>1</sup>			
CROP	East of the Cascade Mountains		West of the Cascade Mountains
	Loamy sand and sandy loam soils 1.0% or greater O.M.	Medium and fine textured soils 1.5% or greater O.M.	All Soil Textures
Bermudagrass ( <i>Cynodon dactylon</i> ) Fescue, fine ( <i>Festuca tenuifolia</i> ) Fescue, tall ( <i>Festuca arundinacea</i> ) Ryegrass, perennial ( <i>Lolium perenne</i> )	6 to 9 oz	9 to 13 oz	9 to 13 oz
Bluegrass, perennial ( <i>Poa pratensis</i> ) Orchardgrass ( <i>Dactylis glomerata</i> )	Do not use		

<sup>1</sup> Use the higher rate of Axiom® DF Herbicide within the applicable rate range under any of the following conditions: Heavy surface vegetation residues, heavy weed pressure, heavier soil textures, and/or greater O.M. content.

### AXIOM® DF HERBICIDE IN TANK MIXTURES AND/OR SEQUENTIAL APPLICATIONS

Axiom® DF Herbicide may be either tankmixed or used sequentially with most registered herbicides to broaden the spectrum of weeds controlled. Refer to the individual product labels for specific use rates, application timings and/or precautions and restrictions. Always follow the most restrictive label.

- Do not tank mix Axiom® DF Herbicide with Diuron, Karmex or other photosynthetic inhibitor herbicides. Allow a minimum of four weeks between application of Axiom® DF Herbicide and photosynthetic inhibitor herbicides.
- Axiom® DF Herbicide may be tank-mixed with oxyfluorfen, however sequential applications of Axiom® DF Herbicide and oxyfluorfen must be separated by a minimum of four weeks.

### MIXING INSTRUCTIONS

Always follow the label instructions of the tankmix partner as well as Axiom® DF Herbicide. Compatibility of Axiom® DF Herbicide or its labeled tank mix products with should always be predetermined prior to spraying. Check the compatibility Axiom® DF Herbicide and the tankmix partner(s) by mixing all components in the order specified in the **Mixing Order** section and water, in a small separate container to evaluate compatibility prior to adding them to the tank.

Axiom® DF Herbicide is a dry flowable herbicide that must be mixed in water. For optimal spray tank mixing convenience and efficiency, Axiom® DF Herbicide is recommended to be added to the spray tank via an eductor system.

Before mixing Axiom® DF Herbicide and its labeled tank mix partners, examine the spray equipment making sure it is completely clean and free of rust or corrosion. Be sure the equipment is free of any residues from previously used pesticides. Flush lines with clean water or recommended detergents after the last application. Use an approved method for disposing of rinsate.

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

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

This 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.

**MIXING ORDER**

The proper mixing sequence for Axiom® DF Herbicide and recommended tank mixtures with water carrier is as follows:

1. Fill sprayer tank to ¼ to ½ full with water. Start the agitation.
2. Slowly add required Axiom® DF Herbicide through the eductor system or to the spray tank slowly while agitation is running.
3. If tank mixing with wettable powders or other dry flowable products, they may be added now.
4. If tank mixing with emulsifiable concentrates or soluble products, add the products to the spray tank now.
5. Complete addition of water to fill the sprayer tank.
6. Vigorously agitate spray tank contents for an additional 5 minutes prior to beginning application.
7. Maintain agitation until application of sprayer contents is complete.

Axiom® DF Herbicide and all registered mixtures should be kept agitated once mixed and then sprayed immediately. Upon completion of application of each spray tank, check and clean 50 mesh in line filter(s). Repeat this step following each load. It is recommended to check individual nozzle filters every third tankload. Do not allow mixtures to stand for prolonged periods of time, no more than 12 hours.

**APPLICATION INFORMATION**

**Broadcast Ground Application:** Axiom® DF Herbicide may only be applied by ground equipment. Apply as a broadcast spray by ground equipment in 10 or more gallons of water per acre.

Confirm that spray tank is equipped with either a sparge tube agitator, mechanical agitation devices or jet agitator devices that are capable of providing vigorous agitation while mixing. Accurately calibrate the sprayer prior to mixing the herbicide treatment to deliver the product(s) in at least 10 GPA of water.

The use of screens to protect the pump and nozzles is recommended. Screens placed on the suction side of the pump should be 16-mesh or coarser. Equip sprayer with 50 mesh in line filter(s) located between the pump discharge and the spray boom. This filter may be located prior to each spray boom section. If nozzle filters are used, use 50 mesh or coarser nozzle filters as recommended by nozzle manufacturer. Do not place a screen in the recirculation line. Application must be made at a sufficient spray pressure and volume to provide accurate and uniform application of spray particles to a given area without causing spray drift to non-target areas.

Refer to the nozzle manufacturer for proper nozzle, pressure setting and sprayer speed for optimum product performance and minimal spray drift. Maintain consistent ground speed while applying product to ensure proper distribution.

Agitate thoroughly before and during application with either bypass or mechanical agitation. Maintain adequate in-tank agitation to keep the spray mixture in suspension and provide a minimum of 20% bypass at all times.

**TANK CLEANUP PROCEDURE**

1. Drain the tank completely, and then wash out tank, boom and hoses with clean water. Drain again.
2. Half fill the tank with clean water and add ammonia (i.e., 3% domestic ammonia solution) at a dilution rate of 1% (i.e., 1 gallon of domestic ammonia for every 100 gallons of rinsate). Complete filling of the tank with water. Agitate/recirculate and flush through boom and hoses. Leave agitation on for 10 minutes. Drain tank completely.
3. Repeat step 2.
4. Remove nozzles and screens and soak them in a 1% ammonia solution. Inspect nozzles and screens and remove visible residues.
5. Flush tank, boom, and hoses with clean water.
6. Inspect tank for visible residues. If present, repeat step 2.

**RESTRICTIONS FOR AXIOM USE IN PERENNIAL GRASSES GROWN FOR SEED:**

1. Do not apply more than 13 oz Axiom® DF Herbicide per acre per 365 day period.
2. One application per 365 day period.
3. Do not apply this product through any type of irrigation equipment or by air.
4. Do not use on soils with less than 1.0% organic matter, or on soils with pH greater than 7.5.
5. Do not use on clay knobs or poorly covered subsoils.
6. Do not tank mix Axiom® DF Herbicide with Diuron, Karmex or other photosynthetic inhibitor herbicides.
7. Allow at least 120 days between application and harvest of seed grass.
8. Do not graze within 30 days of an Axiom® DF Herbicide application.
9. Use only on fields which are at least one year old or have had at least one seed harvest. Use on perennial ryegrass after the second harvest may result in crop injury.
10. Allow a minimum of four weeks between application of Axiom® DF Herbicide and photosynthetic inhibitor herbicides.

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## **INFORMATION FOR AXIOM® DF HERBICIDE USE in FIELD CORN, CORN GROWN FOR SILAGE AND SOYBEANS**

Axiom® DF Herbicide is a selective herbicide for control of many annual grasses and certain broadleaf weeds in field corn, corn grown for silage, and soybeans. Axiom® DF Herbicide may be applied preplant surface, preplant incorporated (mix into the top 1 to 2 inch layer of soil) and preemergence. Axiom® DF Herbicide will provide its most effective weed control when applied and subsequently moved into the soil by rainfall, sprinkler irrigation or mechanical tillage prior to weed emergence. Axiom® DF Herbicide controls weeds by interfering with seed germination and seedling development.

Axiom® DF Herbicide may be applied using either water or sprayable fluid fertilizer as a liquid carrier or be impregnated and applied on dry bulk fertilizer.

Axiom® DF Herbicide may be applied either alone or in tank mix combination with additional herbicides. When tank mixing, always observe all precautionary statements and limitations on labeling of all products.

Dry weather following preemergence application of Axiom® DF Herbicide or recommended tank mixtures may reduce effectiveness. Cultivate if weeds develop.

### **RATE SELECTION/SOIL TEXTURE**

The specified rates of Axiom® DF Herbicide are defined by texture and organic matter content of the soil being treated. Unless a specific soil texture is mentioned, rate tables throughout this label refer to the following three soil texture groups: coarse, medium and fine. If you are not sure how to classify your soil, contact your Bayer CropScience representative, the Cooperative Extension Service or other knowledgeable person. The following chart includes a complete listing of soil textures included in each of the soil textures groupings:

<b>COARSE</b>	<b>MEDIUM</b>	<b>FINE</b>
Sand	Loam	Silty clay loam
Loamy sand	Silt loam	Silty clay
Sandy loam	Silt	Clay loam
	Sandy clay loam	Clay
	Sandy clay	

### **MIXING INSTRUCTIONS**

#### **Liquid Carriers:**

Axiom® DF Herbicide is a dry flowable herbicide that must be mixed in water or sprayable fluid fertilizer. Compatibility of Axiom® DF Herbicide or its labeled tank mix products with these liquid carriers should always be predetermined prior to spraying. Refer to the SPRAYABLE FLUID FERTILIZER COMPATIBILITY TEST (Appendix I) of this label to determine product compatibility in fluid fertilizer carriers.

Before mixing Axiom® DF Herbicide and its labeled tank mixtures, examine the spray equipment making sure it is completely clean and free of rust or corrosion. Be sure the equipment is free of any residues from previously used pesticides. Flush lines with clean water or recommended detergents after the last application. Use an approved method for disposing of rinsate.

For optimal spray tank mixing convenience and efficiency, Axiom® DF Herbicide is recommended to be added to the spray tank via an eductor system.

The proper mixing sequence for Axiom® DF Herbicide and recommended tank mixtures with the appropriate liquid carrier is as follows:

1. Fill the spray tank or nurse tank 1/4 full with the appropriate liquid carrier.
2. Start recirculation and agitation system and continue throughout mixing and application.
3. If the compatibility test indicates the need of a compatibility agent, add the recommended amount of compatibility agent to the spray tank.
4. If ammonium sulfate is to be used, add it now.
5. Next add the specified quantity of Axiom® DF Herbicide through the eductor system or to the spray tank [slowly add Axiom® DF Herbicide if water or sprayable grade nitrogen fertilizers (28-0-0, 32-0-0) are the carriers; for other sprayable grade fertilizers first check compatibility and then either mix directly or preslurry first in water depending on the results of the compatibility test].
6. If tank mixing with wettable powders or other dry flowable products in water as the carrier, they may be added now. If tank mixing these products in a sprayable grade fertilizer carrier, first preslurry these products with water and then slowly add them to any sprayable grade fertilizer carrier.
7. If tank mixing with emulsifiable concentrates or soluble products; add the products to the spray tank.
8. If tank mixing with a glyphosate- containing product or Touchdown®, add the products to the spray tank.
9. If mixing spray adjuvants in the mixture, add them after all other products have been mixed.
10. Fill the spray tank to the desired level with the appropriate liquid carrier.
11. Continue agitation during transport and application until the spray tank is empty.

Axiom® DF Herbicide and all registered mixtures should be kept agitated once mixed and then sprayed immediately. Do not allow mixtures to

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stand for prolonged periods of time. Water quality, pH, temperature and/or other components of the mixture may affect how long the mixture may stand before application.

**Dry Fertilizer Carriers:**

Axiom® DF Herbicide may be impregnated or coated on dry bulk fertilizers for application. Refer to Appendix II of this label for details.

**APPLICATION INFORMATION**

**SPRAYER APPLICATION**

**Ground Broadcast Treatment:** Accurately calibrate the sprayer prior to mixing the herbicide treatments. Apply Axiom® DF Herbicide and the labeled tank mixtures in a minimum of 10 gallons of total spray volume per acre using broadcast boom equipment. Use a pump with capacity to maintain 30 to 40 psi at the nozzles, maintain adequate in-tank agitation to keep the spray mixture in suspension and provide a minimum of 20% bypass at all times. Application must be made at a sufficient spray pressure and volume to provide accurate and uniform application of spray particles to a given area without causing spray drift to non-target areas. If mixed with other labeled herbicides, the spray volume may be no less than the minimum volume recommended by the tank mix product or 10 gallons, whichever is greater. The use of screens to protect the pump and nozzles is recommended. Screens placed on the suction side of the pump should be 16-mesh or coarser. Do not place a screen in the recirculation line. Use 50-mesh or coarser screens between the pump and boom, and where required, at the nozzles. Refer to the nozzle manufacturer for additional recommendations. Agitate thoroughly before and during application with either bypass or mechanical agitation. Rinse the sprayer thoroughly with clean water immediately after each use.

**Band Treatment:** Axiom® DF Herbicide and the labeled tank mixtures may be applied as a band treatment. Use the following formula to calculate the amount of herbicide needed for band treatments:

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

**DRY FERTILIZER APPLICATION**

Apply using a minimum of 200 lb of dry fertilizer per acre. See Appendix II for additional details.

**APPLICATION METHODS AND TIMING**

Axiom® DF Herbicide may be applied either alone or in tank mixtures with or sequentially with certain other registered and recommended herbicides provided that, for tank mixes, the labeling for the other herbicide does not prohibit such mixing. Applications may be made preplant surface, preplant incorporated or preemergence. Axiom® DF Herbicide may be used in either a single or split application program. Do not apply when environmental conditions favor drift.

**Preplant Surface:** For use in conservation, minimum or no-tillage crop production systems, Axiom® DF Herbicide alone or as a recommended tank mixture may be applied as a broadcast spray up to 45 days before planting field corn and 14 days before planting soybeans. A sequential application is recommended for applications made 30 to 45 days prior to planting, where 2/3 of the highest specified broadcast rate for the crop and soil texture is applied initially and the remaining 1/3 is applied at planting. Treatments made less than 30 days before planting may use either a single or sequential application. If weeds are present at the time of application, apply the Axiom® DF Herbicide treatment in tank mixture with a recommended nonselective herbicide such as a glyphosate-containing product or Touchdown. If possible, do not move treated soil out of the row or move untreated soil to the soil surface during planting, as weed control may be reduced.

**Preplant Incorporation:** Apply Axiom® DF Herbicide alone or in combination with recommended tank mixes as a broadcast spray and incorporate into the upper 1 to 2 inches of the soil surface up to 14 days before planting. Avoid deep incorporation since reduced weed control and/or crop injury may result. Incorporate with implements which provide uniform, shallow incorporation (example -finishing disk, harrow, rolling cultivator, etc.)

**Pre-emergence:** Axiom® DF Herbicide alone and its recommended tank mixes may be applied to the soil surface as a broadcast spray or band application after planting of the crop but prior to weed or crop emergence. If weeds are present at the time of application, apply Axiom® DF Herbicide with a nonselective herbicide such as a glyphosate-containing product or Touchdown. Rainfall and/or overhead sprinkler irrigation is necessary to move Axiom® DF Herbicide into the upper soil surface where weed seeds germinate. Dry weather conditions following application may reduce weed control. If adequate moisture is not received within 7 to 10 days after applications and weeds begin to emerge from the soil, a light rotary hoeing or shallow incorporation (no deeper than 1/2 inch deep) will improve performance and minimize crop damage. Excessive rainfall or irrigation after application may reduce weed control.

**Special Applications: Fall Application** (for use only in IA, MN, ND, SD, WI, north of Route 20 in NE, north of Route 136 in IL, and north of Interstate 70 in OH):

Following harvest of crops in the fall, Axiom® DF Herbicide may be applied to crop stubble after October 15, when the sustained soil temperature at the four-inch soil depth is less than 50°F, but before the ground is frozen. This application is limited to only medium- and fine-textured soils with an organic matter of 2.5% or greater and which will be planted to field corn the following spring. The soil may be tilled before or after application with incorporation depth no more than two to three inches following herbicide application. If a spring application of Axiom® DF Herbicide follows the fall application, the total Axiom® DF Herbicide rate for both applications must not exceed 23 ounces.

## CORN (FIELD AND SEED)

Axiom<sup>®</sup> DF Herbicide is a selective herbicide for control of most annual grasses and selected annual broadleaf weeds in field corn. A single or split application program may be used and the product may be applied alone or in tank-mix combination with certain registered herbicides. The following types of applications are allowed: preplant surface, preplant incorporated and preemergence. Most effective weed control will occur when the applied product is moved into the soil by rainfall, sprinkler irrigation or mechanical tillage prior to weed emergence from the soil.

**Special Precautions (Field Seedcorn Inbreds):** Field seedcorn inbred lines may vary in their response to Axiom<sup>®</sup> DF Herbicide. Do not apply Axiom<sup>®</sup> DF Herbicide to inbreds without first verifying with your local seedcorn company (supplier) the Axiom<sup>®</sup> DF Herbicide selectivity on your inbred line.

Application timing for Axiom<sup>®</sup> DF Herbicide on field seedcorn inbreds are **only** preplant surface and preemergence. **Do not apply preplant incorporated.**

Do **not** apply Axiom<sup>®</sup> DF Herbicide on field seedcorn inbreds grown on coarse textured soils with less than 1.0% organic matter.

### WEED SPECIES CONTROLLED BY AXIOM<sup>®</sup> DF HERBICIDE

Axiom<sup>®</sup> DF Herbicide applied at specified dosages and application timings will control many important annual grasses and broadleaf weeds.

WEEDS CONTROLLED <sup>1</sup>	
ANNUAL GRASS WEEDS	
Barnyardgrass ( <i>Echinochloa crusgalli</i> )	Johnsongrass (seedling) ( <i>Sorghum halepense</i> )
Crabgrass, large ( <i>Digitaria sanguinalis</i> )	Lovegrass, India ( <i>Eragrostis</i> sp)
Crabgrass, smooth ( <i>Digitaria ischaemum</i> )	Panicum, browntop ( <i>Panicum fasciculatum</i> )
Foxtail, giant ( <i>Setaria faberi</i> )	Panicum, fall ( <i>Panicum dichotomiflorum</i> )
Foxtail, green ( <i>Setaria viridis</i> )	Signalgrass, broadleaf ( <i>Brachiaria platyphylla</i> )
Foxtail, yellow ( <i>Setaria glauca</i> )	Witchgrass ( <i>Panicum capillare</i> )
Goosegrass ( <i>Eleusine indica</i> )	
ANNUAL BROADLEAF WEEDS	
Beggarweed, Florida ( <i>Desmodium tortuosum</i> )	Purslane, common ( <i>Portulaca oleracea</i> )
Carpetweed ( <i>Mullugo verticillata</i> )	Pusley, Florida ( <i>Richardia scabra</i> )
Galinsoga spp. ( <i>Galinsoga</i> spp.)	Spurge, spotted ( <i>Euphorbia maculata</i> )
Lambsquarters, common <sup>1</sup> ( <i>Chenopodium album</i> )	Waterhemp, common <sup>1,2</sup> ( <i>Amaranthus rudis</i> )
Pigweed spp. <sup>1</sup> ( <i>Amaranthus</i> spp.)	Waterhemp, tall <sup>1,2</sup> ( <i>Amaranthus tuberculatus</i> )
<sup>1</sup> These treatments may not provide acceptable control of triazine-resistant biotypes. <sup>2</sup> Due to extended germination intervals, full season control may not always be achieved, especially following preplant surface applications. To complement control, Axiom <sup>®</sup> DF Herbicide should be used in tank-mixtures or sequentially with other herbicides that provide additional control of these weed species.	

### WEED SPECIES PARTIALLY CONTROLLED BY AXIOM<sup>®</sup> DF HERBICIDE

Axiom<sup>®</sup> DF Herbicide will provide partial control or reduced competition for many additional grass and broadleaf weeds. Reduced competition weeds will be stunted in growth and/or be reduced populations as compared to non-treated areas but control will generally not be commercially acceptable.

WEED SPECIES PARTIALLY CONTROLLED	
ANNUAL GRASS/SEDGE WEEDS	
Cupgrass, woolly ( <i>Eriochloa villosa</i> )	Panicum, Texas ( <i>Panicum texanum</i> )
Millet, wild-proso ( <i>Panicum milliaceum</i> )	Sandbur, field ( <i>Cenchrus incertus</i> )
Nutsedge, yellow ( <i>Cyperus esculentus</i> )	Shattercane ( <i>Sorghum bicolor</i> )
ANNUAL BROADLEAF WEEDS	
Jimsonweed ( <i>Datura stramonium</i> )	Ragweed, common ( <i>Ambrosia artemisiifolia</i> )
Ladysthumb ( <i>Polygonum persicaria</i> )	Sida, prickly ( <i>Sida spinosa</i> )
Marestail ( <i>Coryza canadensis</i> )	Smartweed, Pennsylvania ( <i>Polygonum pennsylvanicum</i> )
Mustard spp. ( <i>Brassica</i> spp.)	Sunflower, common ( <i>Helianthus annuus</i> )
Nightshade, eastern black ( <i>Solanum ptycanthum</i> )	Velvetleaf ( <i>Abutilon theophrasti</i> )

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**AXIOM® DF HERBICIDE USE RATES IN PREPLANT SURFACE, PREPLANT INCORPORATED AND PREEMERGENCE APPLICATIONS**

For FALL Application ( For use only in IA, MN, ND, SD, WI, north of Route 20 in NE, north of Route 136 in IL, and north of Interstate 70 in OH):

After October 15, when the sustained soil temperature at the four inch soil depth is less than 50 °F, Axiom® DF Herbicide may be applied to remaining crop stubble following harvest. In conservation, minimum and no-tillage systems on soils having 2.5% organic matter or greater, apply Axiom® DF Herbicide at 19 to 23 oz/A on *medium textured soils* and 23 oz/A on *fine textured soils*. Apply before the ground is frozen.

The soil may be tilled before or after application with an incorporation depth no more than two to three inches following the fall application. Minimize furrow and ridge formation in the tillage operations after application of Axiom® DF Herbicide. If a spring application is made, the total rate of both fall and spring must not exceed the maximum total rate for field corn, or illegal residues may occur.

**For CONVENTIONAL Tillage Systems With Applications Made TWO WEEKS OR LESS Preplant Surface, Preplant Incorporated and Preemergence Applications**

Axiom® DF Herbicide use rates are located in Table 1. Rates are based on soil texture and organic matter and are for applications made within two weeks of planting and until corn emergence. Do not use on peat or muck soils (soils with 20% or more organic matter).

TABLE 1

AXIOM® DF HERBICIDE USE RATES IN CONVENTIONAL TILLAGE APPLICATIONS MADE TWO WEEKS OR LESS PREPLANT SURFACE, PREPLANT INCORPORATED OR PREEMERGENCE.					
AXIOM® DF HERBICIDE RATE (oz/A). <sup>1,2</sup>					
SOIL TEXTURAL GROUP <sup>3</sup>	SOIL ORGANIC MATTER CONTENT				
	<0.5%	0.5 to 1%	1 to 1.5%	1.5 to 3%	>3 %
COARSE	8 oz	8 to 10 oz	10 to 12 oz	13 oz	15 oz
MEDIUM	10 to 15 oz		15 to 18 oz		17 to 20 oz
FINE	20 to 22 oz				20 to 23 oz

<sup>1</sup> Use the higher rate of Axiom® DF Herbicide within the applicable rate range under any of the following conditions: heavy surface plant residues, heavy weed pressure and/or when soil organic matter is at the upper end of the range.  
<sup>2</sup> If soil pH is >7.4, use the lower rate of the rate range shown.  
<sup>3</sup> For more information, refer to the "Rate Selection/Soil Texture" section of this label.

**AXIOM® DF HERBICIDE USE RATES IN CONSERVATION, MINIMUM, AND NO-TILLAGE SYSTEMS OR CONVENTIONAL TILLAGE SYSTEMS WITH APPLICATIONS GREATER THAN TWO WEEKS PREPLANT SURFACE.**

Axiom® DF Herbicide use rates are located in Table 2. Rates are higher for these types of tillage systems and application timings than in Table 1 due to the extended period of weed control needed and the increased crop residue present. Refer to the "Application Methods and Timing" section of the label for details. Weed control will generally be greater the closer the applications are made to planting but prior to weed emergence. Do not use on peat or muck soils (soils with 20% or more organic matter).

TABLE 2

AXIOM® DF HERBICIDE USE RATES IN CONSERVATION, MINIMUM, AND NO-TILLAGE SYSTEMS; OR CONVENTIONAL TILLAGE SYSTEMS WITH APPLICATIONS GREATER THAN TWO WEEKS PREPLANT SURFACE.					
AXIOM® DF HERBICIDE RATES (oz/A). <sup>1,2</sup>					
SOIL TEXTURAL GROUP <sup>3</sup>	SOIL ORGANIC MATTER CONTENT				
	<0.5%	0.5 to 1%	1 to 1.5%	1.5 to 3%	>3%
COARSE	9 oz	9 to 11 oz	11 to 13 oz	14 oz	16 oz
MEDIUM	11 to 18 oz		18 to 20 oz		19 to 22 oz
FINE	20 to 23 oz				

<sup>1</sup> Use the higher rate of Axiom® DF Herbicide within the applicable rate range under any of the following conditions: heavy surface plant residues, heavy weed pressure and/or when soil organic matter is at the upper end of the range.  
<sup>2</sup> If soil pH is > 7.4, use the lower rate of the rate range shown.  
<sup>3</sup> For more information, refer to the "Rate Selection/Soil Texture" section of this label.

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**AXIOM® DF HERBICIDE TANK MIXTURES**

If a broader spectrum of weed control is required, Axiom® DF Herbicide may be tank mixed with certain recommended herbicides. Mixtures may be used in either conventional, conservation, minimum and / or no-tillage systems. They may be applied with similar timings and methods as Axiom® DF Herbicide alone unless specifically prohibited in the mix partner's product label. Three-way or multiple tank mixtures are permitted unless restricted by the product label. In conservation, minimum or no-till systems where emerged weeds are present at the time of application, Axiom® DF Herbicide alone and/or tank mixtures may also be tank mixed with glyphosate-containing products, and/or Touchdown to provide burndown of emerged weeds. For additional broadleaf control, an appropriate formulation of 2,4-D may be added to the mixtures.

Refer to individual product labels for use rates, precautions and/or restrictions. Apply in accordance with the most restrictive of label limitations and precautions. No label dosage rates should be exceeded. This product cannot be mixed with any product containing a label prohibition against such mixing.

Axiom® DF Herbicide may be tank-mixed with the listed products provided the product to be tank-mixed is registered for this use site. Herbicides recommended for tank mixtures with Axiom® DF Herbicide include:

2,4-D LVE	Clarity®	Marksman®	Roundup Ultra®
Atrazine	Glyphosate	Prowl®	Sencor®
Balance®	Hornet®	Python®	Touchdown®
Banvel®		Roundup®	

Specific information for each tank mix product are provided in the following text. Refer to the individual product labels for additional information concerning use rates, precautions and/or restrictions.

**AXIOM® DF HERBICIDE Plus ATRAZINE:**

Use the specified use rate of Axiom® DF Herbicide as shown below with the labeled use rate of atrazine.

USE RATES FOR AXIOM® DF HERBICIDE (oz/A)			
SOIL TEXTURAL	ORGANIC MATTER CONTENT **		
	< 1%	1 to 3%	> 3%
COARSE	4 to 6 oz	8 to 11 oz	11 oz
MEDIUM	8 to 11 oz	11 to 15 oz	15 oz
FINE	<3 % 15 oz		>3% 15 to 19 oz

USE RATES FOR ATRAZINE (oz/A)	
(0.5 to 2.0 lb ai/A are labeled use rates)	
For improved control of broadleaf weeds such as groundcherry, nightshade, common ragweed, giant ragweed*, mustards, jimsonweed, kochia (non-triazine resistant), sicklepod*, velvetleaf*, common cocklebur*, and annual morningglory.	
Applications may be made preplant surface, preplant incorporated and/or preemergence.	
<b>Do not</b> apply more than two weeks prior to planting In preplant surface applications on coarse textured soils.	
* Weeds are partially controlled (suppressed).	
** Use the lower rate range of Axiom® DF Herbicide on soils with <1% organic matter and/or soil pH of >7.4.	

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**AXIOM® DF HERBICIDE plus BALANCE:**

In addition to the weeds controlled by Axiom® DF Herbicide alone, Axiom® DF Herbicide at rates suggested in Tables 1 or 2 when mixed with the suggested rates of Balance as shown below will improve control of many weeds.

USE RATES FOR BALANCE (oz 75 WDG/A)		
APPLICATION TIMING	COARSE TEXTURED SOILS**	MEDIUM/FINE TEXTURED SOILS
	Conventional tillage/Conservation tillage/No-till	Conventional tillage/Conservation tillage/No-till
Preemergence	0.75 to 1 oz	1.5 to 2.0 oz
Preplant Surface or Incorporated (0 to 7 days before planting)		
Preplant Surface or Incorporated (8 to 14 days before planting)	1.0 to 1.5 oz	2.0 to 2.5 oz

**ADDITIONAL WEEDS CONTROLLED AND COMMENTS**

For improved control of palmer amaranth, buffalobur, common chickweed, seedling dandelion, jimsonweed, kochia, Venice mallow, marestalk, wild mustard, nightshades (eastern, black), field pennycress, broadleaf plantain, triazine resistant weeds (pigweeds, common lambsquarters), common ragweed, shepherdspurse, Pennsylvania smartweed, velvetleaf, waterhemp (common, tall), wild radish, woolly cupgrass\*, wild proso millet\*

\* Weeds may require an appropriate postemergence herbicide application for control of late season escapes.

\*\* On coarse textured soils with < 1.5% organic matter and/or soil pH > 7.4, use Balance at 0.5 to 0.67 oz/acre and Axiom® DF Herbicide at 4 to 8 oz. Use the high rates as organic matter content increases.

Axiom® DF Herbicide may be tank-mixed with the listed products provided the product to be tank-mixed is registered for this use site. In the following tank mixes, use Axiom® DF Herbicide at use rates specified in Tables 1 or 2 plus the specified labeled use rate of the tank mix partner.

AXIOM® DF HERBICIDE Plus:	
TANK MIX PARTNER (Labeled Use Rates)	ADDITIONAL WEEDS CONTROLLED
<b>Banvel/Clarity</b> (1 pt/A)  <b>Marksman</b> (3.5 pt/A)	kochia, ladythumb, Pennsylvania smartweed, marestalk, Venice mallow, nightshade, common ragweed, jimsonweed*, velvetleaf*, common cocklebur*, morningglory sp.*, sicklepod, waterhemp and triazine-resistant weeds

**Preplant and preemergence applications only.**  
 Use only on field which are flat planted (no furrows)  
 Avoid direct contact with the corn seed or injury may result.  
**Apply only** to medium and fine textured soils with > 2% organic matter.

<b>AXIOM® DF HERBICIDE Plus:</b>	
<b>TANK MIX PARTNER (Labeled Use Rates)</b>	<b>ADDITIONAL WEEDS CONTROLLED</b>
<b>Prowl</b> ( 0.75 to 1.5 lb ai/A)	velvetleaf, triazine-resistant weeds
<b>Preemergence application only.</b> Do not apply preplant incorporate as serious corn damage may result.	
<b>Hornet</b> (3.2 to 4.8 oz/A)	common cocklebur, marestalk, jimsonweed, kochia, ladysthumb, Pennsylvania smartweed, Venice mallow, morningglory*, common ragweed, giant ragweed*, Russian thistle, sicklepod, prickly sida, common sunflower, velvetleaf, tall waterhemp, wild mustard, black nightshade, triazine-resistant weeds and Canada thistle
Apply preplant surface, preplant incorporate and/or preemergence. <b>Do not</b> apply to areas where the soil pH is >7.8. <b>Do not</b> apply to areas with a soil pH < 5.9 and organic matter > 5% (Both must apply). Use of Hornet on soils that average < 1.5% organic matter may result in corn damage.	
<b>Python</b> (0.89 to 1.33 oz/A)	marestalk, ladysthumb, Pennsylvania smartweed, Venice mallow, common cocklebur*, jimsonweed*, nightshade (black, cutleaf, eastern black, hairy), velvetleaf, wild mustard, Russian thistle, prickly sida, waterhemp sp., sicklepod*, common ragweed*, giant ragweed*, morningglory sp*, wild sunflower, triazine-resistant weeds
Apply preplant surface, preplant incorporate and/or preemergence. Use of Python on soils that average < 1.5% organic matter may result in corn damage.	
<b>Sencor</b> (0.05 to 0.114 lb ai/A)	ladysthumb, Pennsylvania smartweed, prickly sida, velvetleaf, common ragweed, waterhemp sp.*
Apply preplant incorporate and/or preemergence. <b>Do not</b> use on coarse textured soils with < 1.5% organic matter. This product contains metribuzin. The maximum application rate of 23 oz is equivalent to applying 0.136 lbs metribuzin ai/A. <b>Do not</b> exceed a total Metribuzin (Sencor) rate of 0.187 lb ai/A on soils with < 2% organic matter and 0.25 lb ai/A on all other soils per use season.	

<b>AXIOM® DF HERBICIDE Plus:</b>	
<b>TANK MIX PARTNER (Labeled Use Rates)</b>	<b>ADDITIONAL WEEDS CONTROLLED</b>
<b>2,4-D</b> (low volatile ester) (1/4 to 1 lb ai/A)	common cocklebur, mustards, common ragweed, giant ragweed, jimsonweed, morningglory sp., sunflower, velvetleaf, dandelion*,
Apply preplant surface and/or preemergence. Apply 7 to 14 days prior to planting or 3 to 5 days after planting but before corn emergence. <b>Do not</b> use on light, sandy soils, or where soil moisture is inadequate for normal weed growth.	
<b>Glyphosate/Touchdown</b> (0.375 to 4 lb ai/A)	Annual and perennial weeds
Apply before or after planting but prior to corn emergence For use in conservation, minimum and no-till systems.	
* Weeds are partially controlled (suppressed) ** Burndown weed control in minimum and no-till field corn only	

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**AXIOM® DF HERBICIDE SEQUENTIAL APPLICATIONS**

Sequential herbicide applications either before or following Axiom® DF Herbicide treatments may be used to control additional weeds. Herbicides recommended for sequential applications include:

Atrazine	Bromoxynil	Liberty®	Resource®
Accent®	Bromoxynil + Atrazine	Lightning®	Roundup®
Aim®	Buctril®	Marksman®	Roundup Ultra®
Balance®	Buctril + Atrazine®	Permit®	Scorpion III®
Banvel®	Buctril Gel®	Poast®	Sencor®
Basagran®	Clarity®	Prowl®	2,4-D
Basis®	Exceed®	Pursuit®	
Battalion®	Glyphosate	Python®	
Beacon®	Hornet®	Resolve®	

Refer to the above information and the individual product labels for detailed explanations on use rates and directions and special precautions/restrictions.

**SOYBEAN**

Axiom® DF Herbicide is a selective herbicide for the control/suppression of annual grasses and selected broadleaf weeds in soybeans. Axiom® DF Herbicide may be applied once per use season either alone or in tank mix combination with or sequentially with certain registered herbicides. The following types of application are allowed: preplant surface, preplant incorporated and preemergence. The preplant surface and preplant incorporate treatments may be applied up to 14 days before planting. The most effective weed control will occur when the applied product is moved into the soil by rainfall, sprinkler irrigation or mechanical tillage prior to weed emergence from the soil.

Do not graze or feed forage, hay or straw to livestock.

**WEED SPECIES CONTROLLED BY AXIOM® DF HERBICIDE**

Axiom® DF Herbicide applied alone at the specified dosages and application timings will provide control of certain annual grasses and broadleaf weeds.

WEEDS CONTROLLED <sup>1</sup>	
ANNUAL GRASS WEEDS	
Barnyardgrass ( <i>Echinochloa crusgalli</i> )	Foxtail, yellow ( <i>Setaria glauca</i> )
Crabgrass, large ( <i>Digitaria sanguinalis</i> )	Goosegrass ( <i>Eleusine indica</i> )
Crabgrass, smooth ( <i>Digitaria ischaemum</i> )	Lovegrass, India ( <i>Eragrostis</i> sp)
Foxtail, giant ( <i>Setaria faberi</i> )	Panicum, fall ( <i>Panicum dichotomiflorum</i> )
Foxtail, green ( <i>Setaria viridis</i> )	
ANNUAL BROADLEAF WEEDS	
Carpetweed ( <i>Mullugo verticillata</i> )	Purslane, common ( <i>Portulaca oleracea</i> )
Galinsoga spp. ( <i>Galinsoga</i> spp.)	Spurge, spotted ( <i>Euphorbia maculata</i> )
<sup>1</sup> Full season weed control will be achieved only on coarse textured soils using the maximum 13 ounce use rate. Use rates of 7 to 13 ounces will provide <b>only</b> early season weed control on all other soil textures. To complement early season weed control, Axiom® DF Herbicide is recommended for use in tank-mixture with or sequentially with other herbicides that provide additional control of these weed species.	

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**WEED SPECIES PARTIALLY CONTROLLED BY AXIOM® DF HERBICIDE**

Axiom® DF Herbicide will provide partial control or reduced competition for additional grass and broadleaf weeds. Reduced competition weeds will be stunted in growth and/or be of reduced populations as compared to non-treated areas but control will generally not be commercially acceptable.

WEED SPECIES PARTIALLY CONTROLLED	
ANNUAL GRASS WEEDS	
Johnsongrass, seedling ( <i>Sorghum halepense</i> )	Signalgrass, broadleaf ( <i>Brachiaria platyphylla</i> )
Panicum, browntop ( <i>Panicum fasciculatum</i> )	Shattercane ( <i>Sorghum bicolor</i> )
Sandbur, field ( <i>Cenchrus incertus</i> )	Witchgrass ( <i>Panicum capillare</i> )
ANNUAL BROADLEAF WEEDS	
Beggarweed, Florida ( <i>Desmodium tortuosum</i> )	Ragweed, common ( <i>Ambrosia artemisiifolia</i> )
Jimsonweed ( <i>Datura stramonium</i> )	Sida, prickly ( <i>Sida spinosa</i> )
Lambsquarters, common ( <i>Chenopodium album</i> )	Smartweed, Pennsylvania ( <i>Polygonum pennsylvanicum</i> )
Mustard spp. ( <i>Brassica</i> spp.)	Waterhemp, common ( <i>Amaranthus rudis</i> )
Pigweed spp. ( <i>Amaranthus</i> spp.)	Waterhemp, tall ( <i>Amaranthus tuberculatus</i> )

**AXIOM® DF HERBICIDE USE RATES**

The use rate for Axiom® DF Herbicide applied alone, in tank-mix combination with and/or sequentially with other herbicides for all application methods and timings is **7 to 13 ounces** per acre. The 13 ounce rate of Axiom® DF Herbicide alone will provide full season control of annual grasses and certain broadleaf weeds in coarse textured soils but will provide **only** early season weed control on medium and fine textured soils. Rates lower than 13 ounces will provide only early season weed control on all soil textures. To complement this early season weed control, Axiom® DF Herbicide should be used in tank-mixture or sequentially with other herbicides that provide additional control of these weed species.

**AXIOM® DF HERBICIDE TANK MIXTURES**

If a broader spectrum of weed control or improved residual activity is required, Axiom® DF Herbicide may be tank mixed with certain recommended herbicides. Mixtures may be used in either conventional, conservation, minimum and no-tillage systems. They may be applied with similar timings and methods as Axiom® DF Herbicide alone unless specifically prohibited in the mix partner product label. Three-way or multiple tank mixtures are permitted unless restricted by the mix partner product labels. Refer to the individual product labels for use rates, precautions and/or restrictions. Herbicides recommended for tank mixtures with Axiom® DF Herbicide include:

Authority Broadleaf®	Glyphosate	Roundup®	Touchdown®
Canopy®	Linuron (Lorox® and others)	Roundup Ultra®	Trifluralin
Canopy XL®	Prowl®	Scepter®	2, 4D LVE
Command®	Pursuit®	Sencor® (Metribuzin)	
FirstRate®	Python®	Sonalan HFP®	

**AXIOM® DF HERBICIDE SEQUENTIAL APPLICATIONS**

Sequential herbicide applications may be used in an Axiom® DF Herbicide weed control program to control additional weeds. Herbicides recommended for use either before or following Axiom® DF Herbicide treatments include:

Assure II®	Fusilade®	Prowl®	Scepter®
Basagran®	Fusion®	Pursuit®	Select®
Canopy®	Galaxy®	Python®	Sencor®
Classic®	Glyphosate	Raptor®	Sonalan HFP®
Cobra®	Linuron	Reflex®	Storm®
Command®	Option II®	Reliance STS®	Synchrony STS®
Concert®	Pinnacle®	Resource®	Touchdown®
FirstRate®	Poast®	Roundup®	Trifluralin
Flexstar®	Poast Plus®	Roundup Ultra®	2, 4-D

Refer to the above information and the individual product labels to for use directions, use rates and special precautions/restrictions.

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## USE RESTRICTIONS

Axiom® DF Herbicide is for use on soybeans, field corn, corn grown for silage, perennial grasses grown for seed, winter wheat, fall seeded triticale and field corn grown for seed. Do not apply to popcorn or sweetcorn.

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

Do not use flood irrigation to apply, activate or incorporate Axiom® DF Herbicide.

Do not apply more than 23 ounces Axiom® DF Herbicide per acre per use season in corn, 13 ounces per acre per use season in soybeans or perennial grasses grown for seed, and 10 ounces per acre per use season in winter wheat.

For all metribuzin products used, do not apply more than a total of 1 lb ai/A per use season of metribuzin.

Do not apply Axiom® DF Herbicide or Axiom® DF Herbicide tank mixtures when environmental conditions may favor drift to non-target sites.

Field corn seed should be planted a minimum of 1-1/2 inches deep and soybean seed should be planted a minimum of 1 inch deep.

If any crop treated with Axiom® DF Herbicide is lost, field corn or soybeans may be replanted immediately. Do not make a second application of Axiom® DF Herbicide.

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

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

This 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.

## APPENDIX I

### SPRAYABLE FLUID FERTILIZER COMPATIBILITY TEST

A compatibility test is highly recommended for all applications with liquid fertilizers. Prior to mixing products in the spray tank, small quantities of each product can be mixed in proportionate quantities to evaluate compatibilities. The following test assumes a spray volume of 25 gallons per acre. If other spray volumes are to be used, adjust the appropriate amounts of ingredients. To check for compatibility, use the following procedure:

1. Add two inches of water to a one-quart jar fitted with a tight lid.
2. Add the appropriate amount of herbicide. If more than one product is used, the recommended mix sequence is the dry herbicide first, flowables next and emulsified concentrates last. For dry herbicides, add 1-1/2 level tsp/lb/A use rate and for liquids add 1/2 tsp/pt/A use rate.
3. Add one pint of the liquid fertilizer to the jar. Place the lid on the jar and gently shake the jar for one minute. Place the jar on a level surface and let it stand for 30 minutes.
4. Observe the mixture for signs of separation, flakes, gels, precipitates, etc. If none of these conditions occur, the mix is compatible.
5. If incompatible, use of a compatibility agent is recommended. Rerun the above test but first add a compatibility agent (1/4 tsp is equal to a use rate of 2 pt/100 gal spray mix) and gently shake the jar prior to adding herbicides.
6. If the mixture is now compatible, a compatibility agent should be used in the spray mixture at its recommended rate.
7. If the mixture is still incompatible, the liquid fertilizer and herbicides should not be mixed together for use in the same spray tank.

## APPENDIX II

### IMPREGNATION AND APPLICATION ON DRY FERTILIZER

Dry bulk fertilizer may be impregnated or coated with Axiom® DF Herbicide for applications to field corn and soybeans. Follow all Axiom® DF Herbicide label restrictions, special instructions and precautions. All state regulations relating to dry bulk fertilizer blending, impregnating and labeling must also be followed.

**Rates:** Select the Axiom® DF Herbicide use rate per acre from the crop section of this label and determine the quantity of dry bulk fertilizer to be applied per acre (use a minimum of 200 lb and a maximum of 450 lb/A). Use the equation below to determine the amount of Axiom® DF Herbicide needed per ton of fertilizer applied.

$$\frac{\text{oz Axiom}^{\circledR} \text{ DF Herbicide/A} \times 2000}{\text{lb fertilizer/A}} = \frac{\text{oz Axiom}^{\circledR} \text{ DF Herbicide}}{\text{Per ton fertilizer}}$$

(1 lb = 16 oz Axiom® DF Herbicide)

**Impregnation:** Axiom® DF Herbicide may be impregnated on many commonly used dry fertilizers but should not be impregnated on ammonium nitrate, fertilizers containing ammonium nitrate, potassium nitrate, sodium nitrate or powder limestone.

To impregnate Axiom® DF Herbicide on bulk fertilizer, use a closed rotary-drum mixer or other commonly used dry bulk fertilizer blender equipped with suitable spray equipment. Mix Axiom® DF Herbicide with sufficient water to form a sprayable slurry mixture. Spray nozzles must be directed to provide uniform fertilizer coverage while avoiding spray contact with mixing equipment. Non-uniform impregnation can cause crop injury or unsatisfactory performance.

Spray the herbicide mixture onto the fertilizer after blending has started. If necessary, include a suitable drying agent to ensure a spreadable herbicide impregnated fertilizer. If the fertilizer materials are excessively dusty, use diesel fuel or other suitable additive to reduce dust prior to impregnation. Apply the treated fertilizer immediately after impregnation to avoid lump formation and spreading difficulties.

**Application:** Accurate calibration of fertilizer application equipment and uniform fertilizer distribution is essential for satisfactory weed control. Air flow or auger metered application equipment is preferred (one pass application). If other equipment is used, the recommended application method is to apply one-half the specified rate and overlap 50 percent or to double apply by splitting the middles to obtain the best distribution pattern.

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### IMPORTANT: READ BEFORE USE

Read the entire Directions for Use, Conditions, Disclaimer of Warranties and Limitations of Liability before using this product. If terms are not acceptable, return the unopened product container at once.

By using this product, user or buyer accepts the following Conditions, Disclaimer of Warranties and Limitations of Liability.

**CONDITIONS:** The directions for use of this product are believed to be adequate and must be followed carefully. However, it is impossible to eliminate all risks associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or the manner of use or application, all of which are beyond the control of Bayer CropScience. All such risks shall be assumed by the user or buyer.

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### NET WEIGHT: 25 POUNDS

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Produced for



**Bayer CropScience**

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