

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

OFFICE OF PREVENTION, PESTICIDES AND TOXIC SUBSTANCES

DEC 1 2000

Brian A. Dehart Bayer Corporation P.O. Box 4913 Kansas City, MO 64120-0013

Dear Mr. Dehart:

Subject:

Revised Crop Rotation Restriction

Axiom DF Herbicide

EPA Registration No. 3125-488

Your Submission Dated November 9, 2000

The amendment referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), as amended is acceptable provided that you:

- 1. Make the labeling changes listed below before you release the product for shipment bearing the amended labeling:
 - a. On page 5 separate "For Conservation. Minimum, and No-Tillage systems...." into a heading for its own use directions.
 - b. For clarity in the crop rotation recommendations onions and sugar beets should be listed alphabetically and specify "....and other root crops not listed".
- 2. Submit one (1) copy of your final printed labeling before you release the product for shipment.

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

Sincerely yours

dames A. Tompkins

Product Manager (25)

Herbicide Branch

Registration Division (7505C)

Enclosure

Axiom



DF Herbicide

ACCEPTED with COMMENTS

For weed control in corn and soybeans. In EPA Letter Dated: FIRST AID

ACTIVE INGREDIENT:

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 a poison control center or

Do not give anything by mouth to an unconscious person.

If in eyes 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.

· Call a poison control center or doctor for treatment advice.

lf on skin or clothing

- · Take off contaminated clothing. · Rinse skin immediately with plenty of water for 15 to 20 minutes.
- Call a poison control center or doctor for treatment advice.

· Move person to fresh air. If inhaled

- If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-tomouth if possible.
- Call a poison control center or doctor for further treatment advice.

In case of emergency call toll free the Bayer Kansas City Emergency Response Telephone No. 800-414-0244. Have an AXIOM 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.

DEC 01 2000

Flufenacet

N-(4-Fluorophenyi)-N-(1-methylethyl) and Rodenticide Act, -(trifluoromethyl)-1,3,4-thiadiazoloxylacetamide

Under the Federal Insectibide, led, for the pesticide

Metribuzin:

4-Amino-6-(1,1-dimethylethyl)-3-

-(methylthio)-1,2,4-triazin-5(4H)-one13.6%

100.0%

EPA Reg. No. 3125-488

EPA Est. 3125-MO-1

U.S. Patent No. 4,645,525 and 4,585,471 and 4,968,342 Net Weight: ___ Pounds

STOP - Read the label before use. Keep out of reach of children.

CAUTION

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:

Applicators and other handlers must wear:

- · Long-sleeved shirt and long pants
- · Waterproof gloves
- · 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 contaminate water when disposing of equipment washwaters.

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.

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
- · Waterproof gloves
- · Shoes plus socks

IMPORTANT: Read these entire Directions and Conditions of Sale before using AXIOM Dry Flowable Herbicide.

CONDITIONS OF SALE OR OF DELIVERY FOR USE: THE DIRECTIONS ON THIS LABEL WERE DETERMINED THROUGH RESEARCH TO BE THE DIRECTIONS FOR CORRECT USE OF THIS PRODUCT. THIS PRODUCT HAS BEEN TESTED FOR A RANGE OF WEATHER CONDITIONS SIMILAR TO THOSE WEATHER CONDITIONS THAT ARE ORDINARY AND CUSTOMARY IN THE GEOGRAPHIC AREA WHERE THE PRODUCT IS USED. INSUFFICIENT CONTROL OF PESTS AND/OR INJURY TO THE CROP TO WHICH THE PRODUCT IS

APPLIED MAY RESULT FROM THE OCCURRENCE OF EXTRAORDINARY OR UNUSUAL WEATHER, OR FROM FAILURE TO FOLLOW LABEL DIRECTIONS. IN ADDITION, FAILURE TO FOLLOW LABEL DIRECTIONS MAY CAUSE INJURY TO OTHER CROPS, ANIMALS, MAN, OR THE ENVIRONMENT. BAYER OFFERS, AND THE BUYER ACCEPTS AND USES, THIS PRODUCT SUBJECT TO THE CONDITIONS THAT EXTRAORDINARY OR UNUSUAL WEATHER, OR FAILURE TO FOLLOW LABEL DIRECTIONS ARE BEYOND THE CONTROL OF BAYER AND ARE, THEREFORE, THE RESPONSIBILITY OF THE BUYER.

GENERAL INFORMATION

AXIOM is a selective herbicide for control of many annual grasses and certain broadleaf weeds in field corn, white corn, corn grown for silage and soybeans. AXIOM may be applied preplant surface, preplant incorporated (mix into the top 1 to 2 inch layer of soil) and preemergence. AXIOM 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 controls weeds by interfering with seed germination and seedling development.

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

AXIOM 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 or recommended tank mixtures may reduce effectiveness. Cultivate if weeds develop.

GENERAL USE RESTRICTIONS

AXIOM is for use on soybeans, field corn, white corn, corn grown for silage, 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.

Do not apply more than 23 ounces AXIOM per acre per use season in corn and 13 ounces per acre per use season in soybeans.

Do not apply AXIOM or AXIOM tank mixtures when environmental conditions may favor drift to non-target sites.

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 is lost, corn or soybeans may be replanted immediately. <u>Do not</u> make a second application of AXIOM.

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.

RATE SELECTION / SOIL TEXTURE

The recommended rates of AXIOM 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 Corporation 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:

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

MIXING INSTRUCTIONS

LIQUID CARRIERS:

AXIOM is a dry flowable herbicide that must be mixed in water or sprayable fluid fertilizer. Compatibility of AXIOM 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 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 is recommended to be added to the spray tank via an eductor system.

The proper mixing sequence for AXIOM and recommended tank mixtures with the appropriate liquid carrier is as follows:

- Fill the spray tank or nurse tank 1/4 full with the appropriate liquid carrier.
- Start recirculation and agitation system and continue throughout mixing and application.
- 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 recommended quantity of AXIOM through the eductor system or to the spray tank [slowly add AXIOM 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 Gramoxone Extra®, a glyphosatecontaining product or Touchdown®, add the products to the spray tank.
- If mixing spray adjuvants in the mixture, add them after all other products have been mixed.
- 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 and all registered mixtures should be kept agitated once mixed and then sprayed immediately. Do not allow mixtures to 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 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 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 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:

Band width in inches X Broadcast rate = Band rate

Row width in inches per acre 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 may be applied either alone or in tank mixtures with or sequentially with certain other registered and recommended herbicides. Applications may be made preplant surface, preplant incorporated or preemergence. AXIOM 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 notillage crop production systems, AXIOM alone or as a recommended tank mixture may be applied as a broadcast spray up to 45 days before planting in corn and 14 days before planting in sovbeans. A sequential application is recommended for applications made 30 to 45 days prior to planting, where 2/3 of the highest recommended 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 treatment in tank mixture with a recommended nonselective herbicide such as Gramoxone Extra, 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 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.)

Preemergence: AXIOM 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 with a nonselective herbicide such as Gramoxone Extra, a glyphosate-containing product or Touchdown. Rainfall and/or overhead sprinkler irrigation is necessary to move AXIOM 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 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 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 follows the fall application, the total AXIOM rate for both applications must not exceed 23 ounces.

CORN

(FIELD AND SEED)

AXIOM dry flowable herbicide is a selective herbicide for control of most annual grasses and selected annual broadleaf weeds in 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. Do not apply AXIOM to inbreds without first verifying with your local seedcorn company (supplier) the AXIOM selectivity on your inbred line.

Recommended application timing for AXIOM on field seedcorn inbreds are only preplant surface and preemergence. Do not apply preplant incorporated.

Do **not apply** AXIOM on field seedcorn inbreds grown on coarse textured soils with less than 1.0% organic matter.

WEED SPECIES CONTROLLED BY AXIOM

AXIOM herbicide applied at recommended dosages and application timings will control many important annual grasses and broadleaf weeds.

WEEDS CONTROLLED

ANNUAL GRASS WEEDS

Barnvardorass (Echinocloa crusgalli)

Crabgrass, large (Digitaria sanguinalis)

Crabgrass, smooth (Digitaria ischaemum)

Foxtail, giant (Setaria faberi) Foxtail, green (Setaria viridis)

Foxtail, yellow (Setaria glauca)

Goosegrass (Eleusine indica)

Johnsongrass (seedling) (Sorghum halepense)

Lovegrass, India (Eragrostis sp)

Panicum, browntop (Panicum fasciculatum)

Panicum, fall

(Panicum dichotomiflorum)

Signalgrass, broadleaf (Brachiaria platyphylla)

Witchgrass (Panicum capillare)

> For CONVENTIONAL Tillage Systems With Applications Made TWO WEEKS OR LESS Preplant Surface, Preplant

Incorporated and Preemergence Applications

Recommended AXIOM 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. For CONSERVATION, MINIMUM, and NO-TILLAGE Systems: or CONVENTIONAL Tillage Systems With Applications GREATER THAN TWO WEEKS Preplant Surface:

Recommended AXIOM 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.

ANNUAL BROADLEAF WEEDS

Beggarweed, Florida (Desmodium tortuosum) Carpetweed (Mullugo verticillata) Galinsoga spp.

(Galinsoga spp.) Lambsquarters, common¹ (Chenopodium album)

Pigweed spp.1 (Amaranthus spp.) Purslane, common (Portulaca oleracea) Pusley, Florida

(Richardia scabra) Spurge, spotted

(Euphorbia maculata) Waterhemp, common t, z (Amaranthus rudis)

Waterhemp, tall1,2

(Amaranthus tuberculatus)

These treatments may not provide acceptable control of triazine-resistant biotypes.

Due to extended germination intervals, full season control may not always be achieved, especially following preplant surface applications. To complement control, AXIOM 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

AXIOM 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 (Eriochloa villosa)

Millet, wild-proso (Panicum milliaceum) Nutsedge, yellow

(Cyperus esculentus)

Panicum, Texas (Panicum texanum)

Sandbur, field (Cenchrus incertus)

Shattercane bicolor)

(Sorghum

ANNUAL BROADLEAF WEEDS

Jimsonweed

(Datura stramonium)

Ladysthumb

(Polygonum persicaria) Marestail

(Conyza canadensis)

Mustard spp. (Brassica spp.) Nightshade, eastern black (Solanum ptycanthum)

Ragweed, common (Ambrosia artemisiifolia)

Sida, prickly (Sida spinosa) Smartweed, Pennsylvania

(Polygonum pensylvanicum)

Sunflower, common (Helianthus annuus)

Velvetleaf

(Abutilon theophrasti)

AXIOM 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 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 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. If a spring application is made, the total rate of both fall and spring must not exceed the maximum total rate for corn, or illegal residues may occur.

TABLE 1

AXIOM USE RATES IN CONVENTIONAL TILLAGE APPLICATIONS MADE TWO WEEKS OR LESS PREPLANT SURFACE, PREPLANT INCORPORATED OR PREEMERGENCE.

AXIOM DF RATE (OUNCES PER ACRE). 1,2,3

		SOIL OF	RGANIC MATTER CO	NTENT	***
SOIL TEXTURAL GROUP⁴	<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

- ¹ Use the higher rate of AXIOM 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.
- If soil pH is >7.4, use the lower rate of the rate range shown.
- Not recommended for use on peat or muck soils (soils with 20% or more organic matter).
- For more information, refer to the "Rate Selection/Soil Texture" section of this label.

TABLE 2

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

AXIOM DF RATES (OUNCES PER ACRE). 1,2,3

	SOIL ORGANIC MATTER CONTENT				
SOIL TEXTURAL GROUP⁴	<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		<u> </u>

- Use the higher rate of AXIOM 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.
- ² If soil pH is > 7.4, use the lower rate of the rate range shown.
- ³ Not recommended for use on peat or muck soils (soils with 20% or more organic matter).
- For more information, refer to the "Rate Selection/Soil Texture" section of this label.

AXIOM TANK MIXTURES

If a broader spectrum of weed control is required, AXIOM 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 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 alone and/or tank mixtures may also be tank mixed with Gramoxone Extra, 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.

Herbicides recommended for tank mixtures with AXIOM include:

2.4-D LVE Hornet® Atrazine Marksman® Balance® Pentagon® Banvel® **Prowi®** Cyanazine Pvthon® (Bladex® and others) Roundup® Clarity® Roundup Ultra® Extrazine II® Sencor® Glyphosate Touchdown® Gramoxone Extra®

Specific or general 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 Plus ATRAZINE:

Use the recommended use rate of AXIOM as shown below with the labeled use rate of atrazine.

USE RATES FOR AXIOM (ounces per acre)				
SOIL	ORGAI	VIC MAT	TER CO	NTENT
TEXTURAL	< 1%	1 to	3%	> 3%
COARSE	4 to 6 oz	8 to 1	11 oz	11 oz
MEDIUM	8 to 11 oz	11 to	15 oz	15 oz
FINE	<3 % >3		>3%	
	15 oz 15 to		to 19 oz	

USE RATES FOR ATRAZINE (pounds per acre)

(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.

Do not 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 on soils with <1% organic matter and / or soil pH of >7.4.

AXIOM plus BALANCE:

In addition to the weeds controlled by AXIOM alone, AXIOM 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 (Ounces 75 WDG per Acre)			
	COARSE TEXTURED SOILS**	MEDIUM / FINE TEXTURED SOILS	
APPLICATION TIMING	Conventional tillage / Conservation tillage / No-till	Conventional tillage / Conservation tillage / No-till	
Preemergence Preplant Surface or Incorporated (0 to 7 days before planting)	0.75 to 1 oz	1.5 to 2.0 oz	
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, marestail, 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 at 4 to 8 oz. Use the high rates as organic matter content increases.

In the following tank mixes, <u>use AXIOM at use rates</u> recommended in Tables 1 or 2 plus the recommended labeled use rate of the tank mix partner.

TANK MIX PARTNER	ADDITIONAL INCEDO CONTROLLES
(Labeled Use Rates)	ADDITIONAL WEEDS CONTROLLED
Cyanazine	annual groundcherry, ladysthumb,
(1 lb ai/A)	Pennsylvania smartweed, nightshade, common ragweed, kochia (non-triazine resistant), mustards, jimsonweed*,
Extrazine II	prickly sida, velvetleaf*, common
(1.5 lb ai/A)	cocklebur*, annual morningglory* and sunflower*

Do not use on coarse textured soils

Do not use after December 31, 2002

kochia, ladysthumb, Pennsylvania
smartweed, marestail, 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.

Prowl/Pentagon	velvetleaf, triazine-resistant weeds
(0.75 to 1.5 lb ai/A)	

Preemergence application only.

Do not apply preplant incorporate as serious corn damage may result

Hornet	common cocklebur, marestail,
(3.2 to 4.8 oz/A)	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.

Do not apply to areas where the soil pH is >7.8.

Do not apply to areas with a soil pH < 5.9 and organic matter > 5% (Both must apply).

Use of Homet on soils that average < 1.5% organic matter may result in corn damage.

Python (0.89 to 1.33 oz/A)	marestail, 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 curface	nrenlant incorporate and/or

Apply preplant surface, preplant incorporate and/or preemergence.

Use of Python on soils that average < 1.5% organic matter may result in corn damage.

AXIOM Plus: TANK MIX **PARTNER** (Labeled Use Rates) ADDITIONAL WEEDS CONTROLLED Sencor ladysthumb, Pennsylvania smartweed, prickly sida, velvetleaf, common (0.05 to 0.114 lb ragweed, waterhemp sp.* ai/A)

Apply preplant incorporate and/or preemergence.

Do not 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) per

Do not 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.

2,4-D	common cocklebur, mustards, common
(low volatile ester) (1/4 to 1 lb ai/A)	ragweed, giant ragweed, jimsonweed, morningglory sp., sunflower, velvetleaf, dandelion*,
Apply proplent surface	and/or proprience

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.

Do not use on light, sandy soils, or where soil moisture is inadequate for normal weed growth.

Glyphosate / Touchdown	Annual and perennial weeds
(0.375 to 4 lb ai/A)	
'''' '	lanting but prior to corn emergence n, minimum and no-till systems.
Gramoxone Extra (1.5 to 3 pints/A)	Annual weeds and suppression of some perennials

Apply before or after planting but prior to com emergence For use in conservation, minimum and no-till systems.

- Weeds are partially controlled (suppressed)
- ** Burndown weed control in minimum and no-till corn only

AXIOM SEQUENTIAL APPLICATIONS

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

Atrazine	Buctril + Atrazine®	Permit®
Accent®	Buctril Gel®	Poast®
Aim®	Clarity®	Prowl®
Balance®	Contour®	Pursuit®
Banvel®	Exceed®	Python®
Basagran®	Extrazine II®	Resolve®
Basis®	Glyphosate	Resource®
Battalion®	Gramoxone	Roundup®
Beacon®	Extra®	Roundup Ultra®
Bladex®	Hornet®	Scorpion III®
Bromoxynil	Laddok S-12®	Sencor®
Bromoxynil +	Liberty®	Tough®
Atrazine	Lightning®	2,4-D
Buctrik®	Marksman®	

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

SOYBEAN

AXIOM is a selective herbicide for the control/suppression of annual grasses and selected broadleaf weeds in soybeans. AXIOM 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

AXIOM herbicide applied alone at the recommended dosages and application timings will provide control of certain annual grasses and broadleaf weeds.

WEEDS CONTROLLED				
ANNUAL GRASS WEEDS				
Barnyardgrass (Echinocloa crusgalli)	Foxtail, yellow (Setaria glauca)			
Crabgrass, large (Digitaria sanguinalis)	Goosegrass (Eleusine indica) Lovegrass, India (Eragrostis sp) Panicum, fall			
Crabgrass, smooth (Digitaria ischaemum)				
Foxtail, giant (Setaria faberi)	(Panicum dichotomiflorum)			
Foxtail, green (Setaria viridis)				
ANNUAL BROADLEAF WEEDS				
Carpetweed (Mullugo verticillata)	Purslane, common (Portulaca oleracea)			
Galinsoga spp. (Galinsoga spp.)	Spurge, spotted (Euphorbia maculata)			

WEEDS CONTROLLED¹

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 only early season weed control on all other soil textures. To complement early season weed control, AXIOM is recommended for use in tank-mixture with or sequentially with other herbicides that provide additional control of these weed species.

WEED SPECIES PARTIALLY CONTROLLED BY AXIOM

AXIOM 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 (Sorghum halepense)	Signalgrass, broadleaf (Brachiaria platyphylla)		
Panicum, browntop (Panicum fasciculatum)	Shattercane (Sorghum bicolor)		
Sandbur, field (Cenchrus incertus)	Witchgrass (Panicum capillare)		
ANNUAL BROA	DLEAF WEEDS		
Beggarweed, Florida (Desmodium tortuosum)	Ragweed, common (Ambrosia artemisiifolia)		
Jimsonweed	Sida, prickly (Sida spinosa)		
(Datura stramonium) Lambsquarters, common	Smartweed, Pennsylvania (Polygonum pensylvanicum)		
(Chenopodium album) Mustard spp.	Waterhemp, common (Amaranthus rudis)		
(Brassica spp.)	Waterhemp, tall		
Pigweed spp. (Amaranthus spp.)	(Amaranthus tuberculatus)		

AXIOM USE RATES

The recommended use rate for AXIOM 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 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 should be used in tank-mixture or sequentially with other herbicides that provide additional control of these weed species.

AXIOM TANK MIXTURES

If a broader spectrum of weed control or improved residual activity is required, AXIOM 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 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 recommended use rates, precautions and/or restrictions. Herbicides recommended for tank mixtures with AXIOM include:

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

AXIOM SEQUENTIAL APPLICATIONS

Sequential herbicide applications may be used in an AXIOM weed control program to control additional weeds.

Herbicides recommended for use either before or following AXIOM treatments include:

Assure II® Basagran® Blazer® Canopy® Classic® Cobra® Command®	Gramoxone Extra® Liberty® Linuron Option II® Pentagon® Pinnacle® Poast® Poast Plus®	Reliance STS® Resource® Roundup® Roundup Ultra® Scepter® Select® Sencor® Sonalan HFP®
Classic® Cobra® Command®	Pentagon® Pinnacle® Poast® Poast Plus® Prowl® Pursuit® Python®	Scepter® Select® Sencor®
Galaxy® Glyphosate	Raptor® Reflex®	Trifluralin 2, 4-D

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

CORN AND SOYBEAN CROP ROTATION RECOMMENDATIONS

In the event of a crop failure, any crop on this label can be replanted immediately. Do not make a second application of AXIOM. After application of AXIOM, only the following crops can be planted, after the waiting period as listed below.

Immediately		
Corn		
Soybean		
1 month		
Potato		
4 months		
Carrot		
12 months		
Alfalfa	Millet, pearl	Triticale
Barley	Millet, prose	Wheat
Bermudagrass	Oats	Wild Rice
Bluegrass	Popcorn	Other crops not
Bromegrass	Rice	listed (except root
Buckwheat	Rye	crops)
Clover	Sorghum	
Fescue	Teosinte	
18 months		
Sugar beets	Onions and other root crops with \integer	

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 Emergency Response Team for decontamination procedures or any other assistance that may be necessary. The Bayer Kansas City Emergency Response Telephone No. is 800-414-0244 or contact Chemtrec at 800-424-9300.

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: Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

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:

- 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 teaspoons/pound/acre use rate and for liquids add 1/2 teaspoon/pint/acre use rate.
- 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.
- 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 teaspoon is equal to a use rate of 2 pints/100 gallons spray mix) and gently shake the jar prior to adding herbicides.
- If the mixture is now compatible, a compatibility agent should be used in the spray mixture at its recommended rate.
- 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 for applications to corn and soybeans. Follow all AXIOM label recommendations, special instructions and precautions. All state regulations relating to dry bulk fertilizer blending, impregnating and labeling must also be followed.

Rates: Select the recommended AXIOM 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 pounds and a maximum of 450 pounds per acre). Use the equation below to determine the amount of AXIOM needed per ton of fertilizer applied.

Oz AXIOM per acre x 2000 =

Oz AXIOM

Lb fertilizer per acre

Per ton fertilizer

(1 lb = 16 ounces AXIOM)

Impregnation: AXIOM 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 on bulk fertilizer, use a closed rotarydrum mixer or other commonly used dry bulk fertilizer blender equipped with suitable spray equipment. Mix AXIOM 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. Nonuniform 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 recommended rate and overlap 50 percent or to double apply by splitting the middles to obtain the best distribution pattern.

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