SAVING DATE OF THE REAL PROTECTION	U.S. ENVIRONMENTAL PROTECTION AGENCY Office of Pesticide Programs Registration Division (7505P) 1200 Pennsylvania Ave., N.W. Washington, D.C. 20460	EPA Reg. Number: 89167-45	Date of Issuance: 11/10/2014
1	NOTICE OF PESTICIDE: <u>X</u> Registration Reregistration	Term of Issuance: Conditional	
	(under FIFRĂ, as amended)	Name of Pesticide Produ AX-FLUMIOX	ct:
Name and Address of Regi Scott Baker Axion Ag Products 1966 W 15th Street Loveland, CO 805	, Suite 6		
	iffering in substance from that accepted in connection with this registration use of the label in commerce. In any correspondence on this product a		
under the Federal I Registration is in n Agency. In order t time suspend or ca name in connection registrant a right to This product is cor comply with the fo 1. Submit and product und data.	ormation furnished by the registrant, the above n Insecticide, Fungicide and Rodenticide Act. to way to be construed as an endorsement or recor- to protect health and the environment, the Admin ncel the registration of a pesticide in accordance n with the registration of a product under this Ac o exclusive use of the name or to its use if it has b nditionally registered in accordance with FIFRA illowing conditions: l/or cite all data required for registration/reregistra der FIFRA when the Agency requires all registra	ommendation of thi istrator, on his mot with the Act. The t is not to be constr been covered by oth section 3(c)(7)(A).	s product by the tion, may at any acceptance of any ued as giving the hers. You must eview of your
Signature of Approving O		Date:	
Jastryn V.	WJontagues	11/10/201	14
•	e, Product Manager 23 Registration Division (7505P)		

EPA Form 8570-6

Page 2 of 2 EPA Reg. No. 89167-45 Decision No. 492734

- 2. You are required to comply with the DCI identified below:
  - a. Flumioxazin GDCI-129034-1236, issued on 2/19/2013

You must comply with all of the data requirements within the deadlines established by the order. If you have questions about the Generic DCI listed above, you may contact the Chemical Review Manager in the Pesticide Reevaluation Division: <u>http://www.epa.gov/oppsrtd1/contacts\_prd.htm</u>

3. Submit one copy of the final printed label for the record before you release the product for shipment.

If you fail to satisfy these data requirements, EPA will consider appropriate regulatory action including, among other things, cancellation under FIFRA section 6(e). Your release for shipment of the product constitutes acceptance of these conditions. A stamped copy of the label is enclosed for your records. Please also note that the record for this product currently contains the following CSFs:

• Basic CSF dated 06/27/2014

If you have any questions, please contact Sarah Meadows at (703) 347-0505 or meadows.sarah@epa.gov.

Sincerely,

ajtryn V. M

Kathryn V. Montague, Product Manager 23 Herbicide Branch Registration Division (7505P) Office of Pesticide Programs

Note: Bold italicized text is information for the reader and is not part of the label. [Bracketed information is optional text].

# **AX-FLUMIOX**

#### Herbicide

FOR CONTROL AND/OR SUPPRESSION OF CERTAIN WEEDS IN (ALFALFA), (ARTICHOKE) (ASPARAGUS), (BUSHBERRIES), (CABBAGE AND CHINESE CABBAGE (TIGHT HEADED VARIETIES ONLY)), (CACTUS (PRICKLY PEAR)) (CELERY), (CHICKPEA), (COTTON), (CUCURBIT VEGETABLES), (DRY BEANS), (FIELD CORN), (FIELD PEA), (FLAX), (FRUITING VEGETABLES (INCLUDING OKRA)), (GARLIC), (GRAPE), (HOPS), (LENTILS), (MINT), (NUT TREES (INCLUDING PISTACHIO)), (ONION (DRY BULB)), (OLIVE), (PEANUT), (POME FRUIT), (POMEGRANATE), (POTATO), (SOYBEAN), (STONE FRUIT), (STRAWBERRY), (SUGARCANE), (SUNFLOWER AND SAFFLOWER), (SWEET POTATO), (WHEAT) (TRANSPLANTED MELONS, PEPPER AND TOMATO BEDS) (NON-BEARING FRUIT TREES), (FALLOW LAND) AND TO MAINTAIN BARE GROUND ON NON-CROP AREAS OF (FARMS), (ORCHARDS) AND (VINEYARDS).

Active Ingredient	By Wt.
Flumioxazin*	51%
Other Ingredients	<u>49%</u>
Total	100%

\*2-[7-fluoro-3,4-dihydro-3-oxo-4-(2-propynyl)-2H-1,4-benzoxazin-6-yl]-4,5,6,7-tetrahydro-1H-isoindole-1,3(2H)-dione AX-FLUMIOX is a water dispersible granule containing 51% active ingredient.

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

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

ACCEPTED 11/10/2014

Under the Federal Insecticide, Fungicide and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No. 89167-45

**NET CONTENTS:** 

Manufactured for: AXION AG PRODUCTS LLC 1966 W 15<sup>TH</sup> STREET, Suite 6 Loveland, CO 80538

111011

EPA Reg. No. 89167-45

EPA Est. No.

1	1	υ	1	4	

FIRST AID	
If inhaled:	Move person to fresh air.
	<ul> <li>If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth if possible.</li> <li>Call a poison control center or doctor for further treatment advice.</li> </ul>
If on skin or clothing:	Take off contaminated clothing.
-	<ul> <li>Rinse skin immediately with plenty of water for 15-20 minutes.</li> </ul>
	<ul> <li>Call a poison control center or doctor for treatment advice.</li> </ul>
If in eyes:	<ul> <li>Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li> <li>Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> </ul>
	Call a poison control center or doctor for treatment advice.
If swallowed:	<ul> <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> </ul>

• Do not induce vomiting unless told to do so by the poison control center
or doctor.
Do not give anything by mouth to an unconscious person

#### HOT LINE NUMBER

Have the product container or label with you when calling a poison control center or doctor or going for treatment. You may also contact 1-877-250-9291 for emergency medical treatment information.

# PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS & DOMESTIC ANIMALS CAUTION

Harmful if inhaled or absorbed through the skin. Causes moderate eye irritation. Avoid breathing dust and spray mist. Avoid contact with skin, eyes or clothing.

#### PERSONAL PROTECTIVE EQUIPMENT (PPE):

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 and socks.
- For aerial application to sugarcane, mixer/loaders must also wear:
  - coveralls,
  - chemical resistant apron and
  - chemical resistant boots.

For aerial application to Field Peas, Flax, Lentils, Sunflower, Safflower and Wheat, mixer/loaders must also wear:

- filtering face piece respirator (N95, R95, or P95)
- For aerial application to artichoke mixer/loaders must also wear:
  - filtering face piece respirator (N95, R95, P95).

For ground boom application to cactus (prickly pear); olive and pomegranate, mixer/loaders must also wear:

• filtering face piece respirator (N95, R95, P95).

Follow manufacturer's instructions for cleaning/maintaining PPE. If there are no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

USER SAFETY RECOMMENDATIONS

Users should:

• Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.

• Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

#### **ENVIRONMENTAL HAZARDS**

This product is toxic to non-target plants and aquatic invertebrates. Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Drift or runoff may be hazardous to non-target plants and aquatic organisms in neighboring areas. Do not apply where runoff is likely to occur. Do not apply when weather conditions favor drift from treated areas. Do not contaminate water when disposing of equipment washwaters.

This pesticide is toxic to plants and must be used strictly in accordance with the drift and run-off precautions on this label in order to minimize off-site exposures.

Under some conditions this product may have a potential to run-off to surface water or adjacent land.

Where possible, use methods which reduce soil erosion, such as no till, limited till and contour plowing; these methods also reduce pesticide run-off. Use vegetation filter strips along rivers, creeks, streams, wetlands or on the downhill side of fields where run-off could occur to minimize water run-off.

# Note to EPA reviewer: If this product is shipped in containers greater than 50 lbs, the following environmental hazard statement will be added to the label:

[Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans, or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance contact your State Water Board or Regional Office of the EPA.]

## DIRECTIONS FOR USE

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

# READ ENTIRE LABEL. USE STRICTLY IN ACCORDANCE WITH PRECAUTIONARY STATEMENTS AND DIRECTIONS, AND WITH APPLICABLE STATE AND FEDERAL REGULATIONS.

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 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.

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 waterproof material, shoes plus socks.

### NON-AGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standards for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forest, nurseries or greenhouses.

Keep all unprotected persons out of operating areas, or vicinity where there may be drift. Do not enter or allow others to enter treated areas until sprays have dried.

#### **RESISTANCE MANAGEMENT**

AX-FLUMIOX is a Group 14 herbicide. Any weed population may contain or develop plants naturally resistant to AX-FLUMIOX and other Group 14 herbicides. Weed species with acquired resistance to Group 14 herbicides may eventually dominate the weed population if Group 14 herbicides are used repeatedly in the same field or in successive years as the primary method of control for targeted species. This may result in partial or total loss of control of those species by AX-FLUMIOX or other Group 14 herbicides.

To delay herbicide resistance consider:

- Avoiding the consecutive use of AX-FLUMIOX or other target site of action Group 14 herbicides that might have a similar target site of action, on the same weed species.
- Using tank mixtures or premixes with herbicides from different target site of action Groups as long

as the involved products are all registered for the same use, have different sites of action and are both effective at the tank mix or prepack rate on the weed(s) of concern.

- Basing herbicide use on a comprehensive Integrated Pest Management (IPM) program.
- Monitoring treated weed populations for loss of field efficacy.
- Contacting your local extension specialist, certified crop advisors and/or manufacturer for herbicide resistance management and/or integrated weed management recommendations for specific crops and resistant weed biotypes.

#### TANK MIXES

NOTICE: Tank mixing or use of this product with any other product which is not specifically and expressly authorized by the label shall be the exclusive risk of user, applicator and/or application advisor to the extent allowed by applicable law.

Read and follow the entire label of each product to be used in the tank mix with this product

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#### **USE INFORMATION**

#### AX-FLUMIOX uses:

- AX-FLUMIOX provides residual control of susceptible weeds in alfalfa, asparagus, bushberries, celery, cotton, cucurbit vegetables, dry bean, field corn, garlic, grape, hops, mint, nut trees (including pistachio), onion (dry bulb), non-bearing fruit trees, peanut, pome fruit, potato, soybean, stone fruit, strawberry, sugarcane and sweet potato.
- AX-FLUMIOX provides additional burndown activity when used as part of a burndown program in alfalfa, asparagus, celery, cotton, cucurbit vegetables, dry bean, field corn, fruiting vegetables (including okra) row middles, grape, hops, nut trees (including pistachio), non-bearing fruit trees, peanut, soybean and sugarcane.
- AX-FLUMIOX can be applied as part of a fall burndown program for control of susceptible winter annuals.
- AX-FLUMIOX can be applied with a hooded or shielded sprayer, as well as part of a layby application, in cotton and sugarcane for postemergence weed control as well as residual control of susceptible weeds.
- AX-FLUMIOX can be used on farms, orchards and vineyards for non-selective vegetation control to maintain bare ground non-crop areas that must be kept weed free.
- Read tank mix product label for rates and weeds controlled. Always read and follow label directions for all tank mix products before using. The most restrictive labeling of any tank mix product must be followed. AX-FLUMIOX, when applied according to label use directions, will control the weeds claimed in crop specific use directions. This label makes no claims concerning control of other weed species.

# AVOIDING SPRAY DRIFT AT THE APPLICATION SITE IS THE RESPONSIBILITY OF THE APPLICATOR.

The interaction of many equipment and weather related factors determine the potential for spray drift. The applicator is responsible for considering all of these factors when making decisions. Where states have more stringent regulations, they must be observed.

#### **RESTRICTIONS AND LIMITATIONS**

- Do not apply this product when weather conditions favor spray drift from treated areas.
- Do not apply during low-level inversion conditions, including fog.
- When applying by air, observe drift management restrictions and precautions listed under "AERIAL APPLICATION".
- Do not apply to frozen or snow covered soil.
- Mechanical incorporation into the soil will reduce residual weed control.
- Only apply Post directed and layby applications of AX-FLUMIOX to healthy growing crops.
- Do not apply to farm alleys or roads where traffic may result in treated dust settling onto crops or other desirable vegetation.
- Do not apply within 300 yards of non-dormant pears.
- Do not apply to powdery soils or soils that are susceptible to wind displacement unless irrigation can be applied immediately after application.

# Spray equipment used to apply AX-FLUMIOX must not be used to apply other materials to any crop foliage, unless the proper cleanout procedures are followed. See "SPRAYER CLEANUP" for more information.

#### ENVIRONMENTAL CONDITIONS AND BIOLOGICAL PERFORMANCE

#### Preemergence Application (Conventional Tillage)

**Important:** Crop injury may occur from applications made to poorly drained soils and/or applications made under cool, wet conditions. Risk of crop injury can be minimized by using on well drained soils, planting at least 1.5 inches deep, using high quality seed and completely covering seeds with soil prior to preemergence applications. Treated soil that is splashed onto newly emerged crops may result in temporary crop injury.

Moisture is necessary to activate AX-FLUMIOX in soil for residual weed control. Dry weather following applications of AX-FLUMIOX may reduce effectiveness. However, when adequate moisture is received after

dry conditions, AX-FLUMIOX will control susceptible germinating weeds. AX-FLUMIOX may not control weeds that germinate after application but before an activating rainfall/irrigation or weeds that germinate through cracks resulting from dry soil.

When adequate moisture is not received after a AX-FLUMIOX application, weed control may be improved by irrigation with at least 1/4 inch of water. If emerged weeds are controlled by cultivation, residual weed control will be reduced.

#### **Burndown Application**

For best results, apply AX-FLUMIOX as part of a burndown program to actively growing weeds. Applying AX-FLUMIOX under conditions that do not promote active weed growth will reduce herbicide effectiveness. Do not apply AX-FLUMIOX when weeds are under stress due to drought, excessive water, extremes in temperature, disease or low humidity. Weeds under stress tend to become less susceptible to herbicidal action. AX-FLUMIOX is most effective when applied under warm sunny conditions.

Reduced residual weed control may occur when burndown applications are made to fields where heavy crop and/or weed residue exist.

#### Postemergence Application

Apply AX-FLUMIOX to healthy crops labeled for postemergence use. Do not apply AX-FLUMIOX to crops that have been weakened by disease, drought, flooding, excessive fertilization, soil salts, previously applied pesticides, nematodes, insects or winter injury.

#### Rainfastness

AX-FLUMIOX is rainfast one hour after application. Applications made when rain is expected within one hour of application will reduce postemergence efficacy.

#### **Soil Characteristics**

Application of AX-FLUMIOX to soils with high organic matter and/or high clay content may require higher dosages than soils with low organic matter and/or low clay content. Application to cloddy seedbeds can result in reduced weed control.

#### HERBICIDE RATE

# Residual Weed Control (Including Preemergence Applications or Applications as Part of a Fall or Spring Burndown and Fallow Seedbed Program)

Based upon soil characteristics (organic matter content and texture), the most difficult to control weed species being targeted, and the crop being grown, select the proper AX-FLUMIOX dosage from the rate range tables contained in this label.

**CARRIER VOLUME AND SPRAY PRESSURE** (Ground Equipment only. See Information for Aerial Equipment under "AERIAL APPLICATION".)

#### Preemergence Application (Conventional Tillage)

To ensure uniform coverage, use 10 to 30 gals. of spray solution per acre for conventional tillage applications. Nozzle selection must meet manufacturer's gallonage and pressure specifications for preemergence herbicide application.

#### Burndown Application (Prior to Crop Emergence)

To ensure thorough coverage in burndown applications, use 15 to 60 gals. spray solution per acre. Use 20 to 60 gals. per acre if dense vegetation or heavy crop residue is present. Nozzle selection must meet manufacturer's gallonage and pressure specifications for postemergence herbicide application. Do not use flood jet nozzles.

**Postemergence Application (Emerged Crop)** Check use directions for specific crops in which AX-FLUMIOX can be applied postemergence. To ensure thorough coverage in burndown applications, use a minimum of 15 gallons spray solution per acre. Use a minimum of 20 gallons per acre if dense vegetation or

heavy crop residue is present. Nozzle selection must meet manufacturer's gallonage and pressure specifications for postemergence herbicide application.

#### ADDITIVES

#### **Burndown Application (Prior to Crop Emergence)**

Postemergence control of weeds from AX-FLUMIOX tank mixes will require the addition of an agronomically approved adjuvant to the spray mixture. When an adjuvant is to be used with AX-FLUMIOX, Axion Crop Care LLC recommends the use of a Chemical Producers and Distributors Association certified adjuvant. Either a crop oil concentrate or methylated seed oil which contains at least 15% emulsifiers and 80% oil or a non-ionic surfactant at 0.25% v/v, may be used when applying AX-FLUMIOX as part of a burndown program. Some tank mix partners, such as Roundup Power Max®, are formulated with sufficient adjuvants and do not require the addition of a crop oil concentrate, methylated seed oil or non-ionic surfactant when tank mixed with AX-FLUMIOX. The addition of a crop oil concentrate or methylated seed oil may increase the burndown activity on certain weeds such as cutleaf eveningprimrose and Carolina geranium. Verify mixing compatibility qualities with a jar test.

A spray grade nitrogen source (either ammonium sulfate at 2 to 2.5 lbs./A or a 28 to 32% nitrogen solution at 1 to 2 qts./A) may be added to the spray mixture along with either a crop oil concentrate, methylated seed oil or non-ionic surfactant to enhance weed control. The addition of a nitrogen source does not replace the need for a crop oil concentrate, a methylated seed oil or a non-ionic surfactant.

#### JAR TEST TO DETERMINE COMPATIBILITY OF ADJUVANTS AND AX-FLUMIOX

When using AX-FLUMIOX and an adjuvant, such as in stale seed bed, layby, hooded/shielded or reduced tillage situations, perform a jar test before mixing commercial quantities of AX-FLUMIOX, when using AX-FLUMIOX for the first time, when using new adjuvants or when a new water source is being used.

- 1. Add 1 pt. of the water to a quart jar. Use water from the same source and temperature as which will be used in the spray tank mixing operation.
- 2. Add 1 g of AX-FLUMIOX to the quart jar for every 3 oz. of AX-FLUMIOX per acre being applied (4 g if 12 oz./A is the desired AX-FLUMIOX rate), gently mix until product goes into suspension.
- 3. Add 60 ml (4 Tbsps. or 2 fl. oz.) of the crop oil or methylated seed oil to the quart jar or 1 ml of nonionic surfactant if it is being used in place of oil, gently mix.
- 4. If nitrogen is being used, add 16 ml (1 Tbsp. or 0.5 oz.) of the 28 to 32% nitrogen source to the quart jar. If ammonium sulfate is being used, add 19 g AMS to the quart jar in place of the 28 to 32% nitrogen.
- 5. Place cap on jar, invert 10 times, let stand for 15 minutes, evaluate.
- 6. An ideal tank mix combination will be uniform and free of suspended particles. The appearance of any of the following conditions are unacceptable and the choice of adjuvant must be modified:
  - a) Layer of oil or globules on the mixture's surface.
  - b) Flocculation: fine particles in suspension or as a layer on the bottom of the jar.
  - c) Clabbering: Thickening texture (coagulated) like gelatin.

#### SPRAYER PREPARATION

Before applying AX-FLUMIOX, start with clean, well maintained application equipment. The spray tank, as well as all hoses and booms, must be cleaned to ensure no residue from the previous spraying operation remains in the sprayer. Some pesticides, including but not limited to, the sulfonylurea and phenoxy herbicides, (i.e., Classic® and 2,4-D respectively) are active at very small amounts and can cause crop injury when applied to susceptible crops. The spray equipment must be cleaned according to the manufacturer's directions for the last product used before the equipment is used to apply AX-FLUMIOX. If two or more products were tank mixed prior to AX-FLUMIOX application, the most restrictive cleanup procedure must be followed.

#### **MIXING INSTRUCTIONS**

- 1. Fill clean spray tank 1/2 to 2/3 of desired level with clean water.
- 2. If a drift retardant is to be used, add 10 lbs of spray grade ammonium sulfate per 100 gals. of spray solution.
- 3. To ensure a uniform spray mixture, pre-slurry the required amount of AX-FLUMIOX with water prior to addition to the spray tank. Use a minimum of 1 gal. of water per 10 oz. of AX-FLUMIOX.
- 4. While agitating, slowly add the pre-slurried AX-FLUMIOX to the spray tank. Adequate agitation will create a rippling or rolling action on the water surface.

- 5. If tank mixing AX-FLUMIOX with other labeled herbicides, add water soluble bags first, followed by dry formulations, flowables, emulsifiable concentrates and then solutions. Prepare no more spray mixture than is required for the immediate spray operation.
- 6. Add any required adjuvants.
- 7. Fill spray tank to desired level with water. Continue agitation until all spray solution has been applied.
- 8. Mix only the amount of spray solution that can be applied the day of mixing. Apply AX-FLUMIOX within 6 hours of mixing.

#### SPRAYER CLEANUP

Spray equipment, including mixing vessels and nurse tanks, must be cleaned each day following AX-FLUMIOX application. After AX-FLUMIOX is applied, the following steps must be used to clean the spray equipment:

- 1. Completely drain the spray tank, rinse the sprayer thoroughly, including the inside and outside of the tank and all in-line screens.
- 2. Fill the spray tank with clean water and flush all hoses, booms, screens and nozzles.
- 3. Top off tank, add 1 gal of 3% household ammonia (or equivalent) for every 100 gals of water, circulate through sprayer for 5 minutes, and then flush all hoses, booms, screens and nozzles for a minimum of 15 minutes. If diaphragms are being used on the spray boom, loosen diaphragms before flushing the spray system, allowing cleaning solution to spray through the open diaphragm. If spray lines have any end caps, they must be loosened before flushing the system, allowing cleaning solution to spray through the loosened caps. To enhance removal of AX-FLUMIOX from the spray system, add a tank cleaner such as "Valent Tank Cleaner" from Valent U.S.A. Corporation, in place of ammonia and allow the cleaning solution to remain in the pressurized spray system (spray tank, hoses and boom) overnight before flushing the system for a minimum of 15 minutes.
- 4. Drain tank completely.
- 5. Add enough clean water to the spray tank to allow all hoses, booms, screens and nozzles to be flushed for 2 minutes.
- 6. Remove all nozzles and screens and rinse them in clean water.

Spray equipment, including all tanks, hoses, booms, screens and nozzles, must be thoroughly cleaned before it is used to apply postemergence pesticides. Equipment with AX-FLUMIOX residue remaining in the system may result in crop injury to the subsequently treated crop.

#### **APPLICATION EQUIPMENT**

Application equipment must be clean and in good repair. Nozzles must be uniformly spaced on boom and frequently checked for accuracy.

#### **BROADCAST APPLICATION**

Apply AX-FLUMIOX, and AX-FLUMIOX tank mixes, with ground equipment using standard commercial sprayers equipped with flat fan or flood nozzles (preemergence applications only) designed to deliver the desired spray pressure and spray volume.

#### BAND APPLICATION

When banding, use proportionately less water and AX-FLUMIOX per acre. The rate of AX-FLUMIOX required per acre, when applied as a banded application, can be calculated with the following formula:

Amount Needed per Acre for	=	Band width in inches	Х	Rate per Broadcast Acre
Banded Application		Row Width in inches		

#### AERIAL APPLICATION

Spray drift away from the site of application may cause damage to non-target vegetation. To minimize drift, apply the largest droplet size consistent with uniform coverage and satisfactory weed control. To obtain satisfactory application and avoid drift, the following directions must be observed:

- Do not apply during low-level inversion conditions (including fog), when winds are gusty or under other conditions that favor drift. Do not spray when wind velocity is less than 2 mph or more than 10 mph.
- Do not apply this product by air within 40 ft. of non-target plants including non-target crops.

- Do not apply this product by air within 100 ft. of emerged cotton crops.
- Do not apply this product by air within 40 ft. of streams, wetlands, marshes, ponds, lakes and reservoirs.
- Carrier Volume and Spray Pressure: When used as part of a burndown weed control program, apply AX-FLUMIOX in 7 to 10 gals. of water per acre. Application at less than 7 gals. per acre may provide inadequate control. When used for preemergence weed control, apply AX-FLUMIOX in 5 to 10 gals. of water per acre. The higher gallonage applications generally afford more consistent weed control. Do not exceed the nozzle manufacturer's specified pressures. For many nozzle types, lower pressure produces larger droplets. When higher flow rates are needed, use higher flow rate nozzles instead of increasing pressure.
- Nozzle Selection and Orientation: Formation of very small drops may be minimized by appropriate nozzle selection, by orienting nozzles away from the air stream as much as possible and by avoiding excessive spray pressure. Use nozzles that produce flat or hollow cone spray patterns. Use non-drip type nozzles, such as diaphragm type nozzles, to avoid unwanted discharge of spray solution. The nozzles must be directed toward the rear of the aircraft, at an angle between 0 and 15° downward. Do not place nozzles on the outer 25% of the wings or rotors.
- Adjuvants and Drift Control Additives: Refer to tank mix partner's label for adjuvant use directions. Drift control additives may be used. When a drift control additive is used, read and carefully observe the cautionary statements and all other information appearing on the additive label.

#### CHEMIGATION

Follow all label directions for crops regarding rates, timing of application, special instructions and precautions.

Apply this product only through center pivot systems. End guns must be turned off due to uneven application. Do not apply this product through any other type of irrigation system.

Crop injury, lack of efficacy or illegal pesticide residues in the crop can result from non-uniform distribution of treated water.

The system must be properly calibrated (with water only) to ensure that the amount of AX-FLUMIOX applied corresponds to the listed rate.

Apply AX-FLUMIOX in 1/2 to 3/4 inches of water during the first sprinkler set. Allow time for all lines to flush the herbicide through all nozzles before turning off irrigation water. To ensure the lines are flushed and free of remaining herbicide, a dye indicator may be injected into the lines to mark the end of the application period. Once chemigation has begun, the run must be completed to ensure no product is left in the system.

If you have any questions about calibration, you should contact your State Extension Service Specialist, equipment manufacturers or other experts.

#### **Special Instructions for Chemigation**

- 1. Do not connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system unless the pesticide label-prescribed safety devices for public water systems are in place.
- A person knowledgeable of the chemigation system and responsible for its operation or under the supervision of the responsible person must be present to shut the system down and make necessary adjustments.
- 3. The system must be free of leaks and clogged nozzles.
- 4. The pesticide must be supplied continuously for the duration of the aqueous application. An uneven application may cause injury to the crop or poor weed control.
- 5. Agitation must be maintained in the nurse tank.
- 6. The sprinkler chemigation system must contain a functional check valve, vacuum relief valve and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow.

- 7. The pesticide injection pipeline must contain a functional, automatic, quick closing check valve to prevent the flow of fluid back toward the injection pump.
- 8. The pesticide injection pipeline must contain a functional, normally closed, solenoid operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
- 9. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops, or in the case where there is no water pump, when the water pressure decreases to the point where pesticide distribution is adversely affected.
- 10. The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.
- 11. Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump), effectively designed and constructed of materials that are compatible with the pesticides and capable of being fitted with a system interlock.
- 12. Do not apply when wind speed favors drift beyond the area intended for treatment.

#### Chemigation Systems Connected to Public Water Systems

- 1. Public water system means a system for the provision to the public of piped water for human consumption, if such a system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days out of the year.
- 2. Chemigation systems connected to the public water system must contain a functional, reduced pressure zone (RPZ), backflow preventer or the functional equivalent in the water supply line upstream from the point of pesticide introduction. As an option to the RPZ, the water from the public water system should be discharged into a reservoir tank prior to pesticide introduction. There shall be a complete physical break (air gap) between the outlet end of the fill pipe and the top overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe.
- 3. All chemigation systems connected to the public water system must also follow restrictions listed in the preceding section titled "Special Instructions for Chemigation".

#### APPLICATION WITH DRY BULK FERTILIZERS

Dry bulk fertilizer may be impregnated or coated with AX-FLUMIOX. Application of dry bulk fertilizer with AX-FLUMIOX provides weed control equal to, or slightly below, the same rate of AX-FLUMIOX applied in liquid carriers, due to better coverage with application via spray equipment. Follow label directions for AX-FLUMIOX regarding rates, special instructions, cautions and special precautions. Apply 400 to 700 lbs. of the fertilizer/herbicide mixture per acre to obtain adequate soil coverage. Apply the mixture to the soil with properly calibrated equipment immediately after blending. Uniform application of the herbicide/fertilizer mixture is essential to prevent possible crop injury and to obtain uniform weed control.

Do not us ammonium nitrate and/or limestone as the sole source of fertilizer, as the AX-FLUMIOX may not adhere to these materials.

Compliance with all Federal and State regulations relating to blending pesticide mixtures with dry bulk fertilizer, registrations, labeling and application are the responsibility of the individual and/or company offering the fertilizer and AX-FLUMIOX mixture for sale.

AX-FLUMIOX must be premixed with water to form a slurry prior to impregnation on dry bulk fertilizer. Use a minimum of 1 pt. of water for each 2 oz. of AX-FLUMIOX, and use a minimum of 6 pts. of the AX-FLUMIOX slurry to impregnate 2000 lbs. of the fertilizer for uniform coverage of the fertilizer. Closed drum, belt, ribbon or other commonly used dry bulk blenders may be used.

The amount of AX-FLUMIOX required can be calculated with the following formula:

Ounces of AX-FLUMIOX per ton	= ounces of AX-FLUMIOX per acre	Х	2000	÷	pounds of fertilizer
of fertilizer					per acre

Thoroughly clean dry fertilizer blending equipment after AX-FLUMIOX has been placed in the system to avoid injury to sensitive crops that may be treated with fertilizers blended after the equipment has been used for AX-FLUMIOX. Rinse the sides of the blender and the herbicide tank with water. Then impregnate the rinsate onto a load of dry fertilizer intended for an approved crop. Use a maximum rate of 1 gal. of rinsate per ton of fertilizer. Follow with 1 to 2 loads of unimpregnated fertilizer in the blender before switching herbicides.

#### **ROTATIONAL RESTRICTIONS**

The following rotational crops may be planted after applying AX-FLUMIOX at the listed rate. Planting earlier than the specified rotational interval may result in crop injury.

Do not plant any crop, except corn (field), cotton, peanut, soybean, sugarcane and sweet • potato earlier than 30 days after applying AX-FLUMIOX.

AX-FLUMIOX RATES	CROPS	ROTATIONAL INTERVALS	
1 oz./A	Cotton (no-till or strip-till only)	14 days <sup>1</sup>	
1.5 to 2oz./A	Cotton (no-till or strip-till only)	21 days <sup>1</sup>	
2 oz./A or less	Peanut, Soybean, Sugarcane and Sweet Potato	immediately	
	Field Corn (minimum and no-till)	7 days	
	Cotton and Field Corn (conventional		
	tillage), Rice, Sorghum, Sunflower,	30 days <sup>1</sup>	
	Tobacco and Wheat		
	Barley, Dry and Snap Beans, Flax, Peas, Rye,	3 months	
	Safflower and Sweet Corn		
	Alfalfa, Canola, Clover, Oats, Potato,	4 months if soil is tilled prior to	
	Sugar Beet and all other crops not listed <sup>2</sup>	planting 8 months if no tillage is	
	Sugar Deet and an other crops not listed	performed	
	Lontil	6 months	
	Lentil	6 monuns	
Up to 3 oz./A	Peanut, Soybean, Sugarcane and Sweet Potato	immediately	
-p	Field Corn (minimum and no-till)	14 days	
	Field Corn (conventional tillage) and	00 deve1	
	Sorghum	30 days <sup>1</sup>	
	Cotton, Rice, Sunflower, Tobacco and Wheat	2 months <sup>1</sup>	
	Barley, Dry and Snap Beans, Flax, Pea, Rye, Safflower and Sweet Corn	4 months	
		5 months if soil is tilled prior to	
	Alfalfa, Clover, Oats, Potato, Sugar Beet	planting	
		10 months if no tillage is performed	
		6 months if soil is tilled prior to	
	Canola and all other crops not listed <sup>2</sup>	planting	
	1 (1)	12 months if no tillage is performed	
	Lentil	7 months	
Up to 4 oz./A	Sugarcane	Immediately	
	Alfalfa, Canola, Potato, Sugar Beet and all other	6 months if soil is tilled prior to	
	crops not listed <sup>2</sup>	planting 12 months if no tillage is performed	
	Cotton, Field Corn, Peanut, Rice,	12 montris il no tillage is performed	
	Sorghum, Soybean, Sunflower, Tobacco and	4 months	
	Wheat	+ montais	
	Transplanted on raised beds only:	2 months (if the top 4 inches of the	
	melon, pepper and tomato <sup>3</sup>	beds have been removed)	
6 to 12 oz./A	Cotton, Field Corn, Peanut, Rice,	,, , ,, , ,, , ,, , ,, , , , , , , , , , , , , , , , , , , ,	
	Sorghum, Soybean, Sunflower, Tobacco and	9 months	
	Wheat		
	Alfalfa, Canola, Sugar Beet and all other crops	12 months if soil is tilled prior to	
	not listed <sup>2</sup>	planting	
	Trees can be transplanted 2 months	18 months if no tillage is performed	
	after an application of AX-FLUMIOX <sup>3</sup>		

<sup>1</sup> At least one inch of rainfall/irrigation must occur between application and planting or crop injury may occur. <sup>2</sup> Successful soil bioassay must be performed prior to planting these crops.

<sup>3</sup> Transplanted apple, apricot, avocado, bushberries (including blueberry), cherry, fig, grape, grapefruit, lemon, nectarine, nut trees (including pistachio), olive, orange, peach, pear, plum (including dried plum), and tangerine can be planted 2 months after a AX-FLUMIOX application of 2 to12oz./A.

#### Table 1. Broadleaf Weeds Controlled by Residual Activity of AX-FLUMIOX

SECTION A							
COMMON NAME	SCIENTIFIC NAME	ORGANIC MATTER	SOIL TYPE	AX-FLUMIOX RATE			
Carpetweed	Mollugo verticillata	Up to 5%	All Soil Types	2 oz./A			
Chickweeds							
Common	Stellaria media						
Mouseear	Cerastium vulgatum						
Dandelion	Taraxacum officinale						
Eclipta	Eclipta prostrata						
Eveningprimrose,	Oenothera laciniata						
Cutleaf							
Field Pennycress	Thlaspi arvense						
Florida Pusley	Richardia scabra						
Henbit	Lamium amplexicaule						
Lambsquarters,	Chenopodium album						
Common							
Little Mallow	Malva parviflora						
Marestail/Horseweed	Conyza canadensis						
Mayweed/False	Matricaria maritime						
Chamomile							
Nightshades							
Black	Solanum nigrum						
Eastern Black	Solanum ptycanthum						
Hairy	Solanum sarrachoides						
Pigweeds							
Redroot	Amaranthus retroflexus						
Smooth	Amaranthus hybridus						
Spiny Amaranth	Amaranthus spinosus						
Tumble	Amaranthus albus						
Prickly Lettuce	Lactuca serriola						
Prickly Sida	Sida spinosa						
(Teaweed)							
Puncturevine	Tribulus terrestris						
Purslane, Common	Portulaca oleracea						
Radish, Wild	Raphanus raphanistrum						
Redmaids		<i>i</i> ar					
	menziessii						
Shepherd's-purse	Capsella bursa-pastoris						
Smallflower	Jacquemontia tamnifolia						
Morningglory							
Sowthistle, Prickly	Sonchus asper						
Spotted Spurge	Euphorbia maculata						
Venice Mallow	Hibiscus trionum						

#### Table 1. Broadleaf Weeds Controlled by Residual Activity of AX-FLUMIOX (continued)

Section B							
All weeds listed in Section A plus:							
COMMON NAME	SCIENTIFIC NAME	ORGANIC MA	ATTER	AX-FLUMIOX RATE <sup>2</sup>			
Coffee Senna	Cassia occidentalis			2 oz./A Cotton and			
Common Ragweed <sup>1</sup>	Ambrosia artemisiifolia			Dry Bean			
False Chamomile	Tripleurospermum maritima	Up to 3%	All Soil Types	2.5 oz./A Field Corn			
Florida Beggarweed	Desmodium tortuosum			and Soybean			
Golden Crownbeard	Verbesina encelioides			3 oz./A Peanut and			

Hairy Indigo	Indigofera hirsuta			all other labeled crops		
Hemp Sesbania	Sesbania exaltata					
Jimsonweed	Datura stramonium					
Kochia	Kochia scoparia					
London Rocket	Sisymbrium irio	-	Coarse and	2 oz./A Cotton and		
Morningglories <sup>3</sup>			Medium Soils:	Dry Bean		
Entireleaf	Ipomoea hederacea var. integriuscula		(sandy loam, loamy sand, loamy, siltloam, silt, sandy clay, sandy clay loam) 3 to 5%	2.5 oz./A Field Corn and Soybean 3 oz./A Peanut and all other labeled crops		
lvyleaf	Ipomoea hederacea	-				
Red/Scarlet	Ipomoea coccinea	-				
Tall	Ipomoea purpurea	3 to 5%		01000		
Mustard, Wild	Brassica kaber	-				
Palmer Amaranth	Amaranthus palmeri	-				
Spurred Anoda	Anoda cristata					
Tropic Croton	Croton glandulosus		Eine Oniter	2 oz./A Cotton and		
Waterhemps <sup>1</sup>			Fine Soils:	Dry Bean		
Common	Amaranthus rudis	-	(silty clay, silty clay loam, clay, clay loam)	3 oz./A Field Corn, Peanut, Soybean		
Tall	Amaranthus tuberculatus			and all other labeled		
Wild Poinsettia	Euphorbia heterophylla		loanny	crops		
Yellow Rocket	Barbarea vulgaris			01000		

<sup>1</sup> A postemergence herbicide, such as COBRA®, PHOENIX<sup>™</sup> or glyphosate (ROUNDUP READY® soybeans only) may be needed following a preemergence application of AX-FLUMIOX to adequately control common ragweed or waterhemp in soybean fields with heavy pressure.

<sup>2</sup> Due to differences in crop canopy timing between peanuts and soybeans, apply 3 oz./A of AX-FLUMIOX in peanuts, regardless of soil type and organic matter content, except in the states of North Carolina, Oklahoma and Virginia where a maximum of 2 oz./A can be applied in peanuts. AX-FLUMIOX will provide residual control of these weeds at 2 oz./A when applied under a cotton canopy.

<sup>3</sup> Morningglory species are not adequately controlled on fine soils or soils with greater than 3% organic matter.

BROADLEAF WEED SPECIES			
COMMON NAME	SCIENTIFIC NAME	ORGANIC MATTER	OUNCES PER ACRE
Bristly Starbur	Acanthospermum hispidum	Up to 5%	2 to 3
Copperleaf, Hophornbeam	Acalypha ostryifolia		
Ragweed, Giant	Ambrosia trifida		
Russian Thistle	Salsola iberica		
Smartweeds			
Ladysthumb	Polygonum persicaria		
Pennsylvania	Polygonum pensylvanicum		
Smellmelon	Cucumis me/o		
Velvetleaf	Abutilon theophrasti		
Wild Buckwheat	Polygonum convolvulus		
Wormwood, Biennial	Artemisia biennis		
GRASS WEED SPECIES			
Barnyardgrass	Echinochloa crus-galli		
Bluegrass, Annual	Poa annua		
Crabgrass, Large	Digitaria sanguinalis		
Foxtail, Giant	Setaria faberi		
Goosegrass	Eleusine indica		
Lovegrass, California	Eragrostis diffusa		
Panicums			
Fall	Panicum dichotomiflorum		
Texas	Panicum texanum		
Ryegrass, Italian	Lolium multiflorum		
Signalgrass, Broadleaf	Brachiaria platyphylla		
Cheat	Bromus secalinus	Up to 5%	1.5 to 3
Downy Brome	Bromus tectorum		

#### Table 2. Weeds Suppressed by Residual Activity of AX-FLUMIOX

#### DIRECTIONS FOR USE IN FALL AND SPRING PREPLANT BURNDOWN AND FALLOW SEEDBED PROGRAMS IN FIELD CORN, PEANUT AND SOYBEAN (Preemergence to Crop)

#### For Use in the States of Arizona, California and Hawaii Only

#### **RESTRICTIONS AND LIMITATIONS**

- Do not apply to frozen or snow covered soil.
- Do not perform any tillage operation after application or residual weed control will be reduced.
- [Observe all rotational intervals prior to planting as listed in the "ROTATIONAL RESTRICTIONS" table.]

#### FALL BURNDOWN AND FALLOW SEEDBED PROGRAMS

AX-FLUMIOX[, at 2 to 4 oz/A] can be used in the fall to provide residual weed control in fields that will be planted the following spring with field corn, peanut or soybean [(refer to Rotational Restrictions table for rates and rotational intervals prior to planting)]. Weeds controlled by residual activity are listed in Table 1 (sections A and B), Broadleaf Weeds Controlled by Residual Activity of AX-FLUMIOX; Table 3, Weeds Controlled by Fall and Spring Preplant Burndown Programs; and Table 7, Weeds Controlled by Residual Activity of AX-FLUMIOX. If weeds have emerged at the time of application, use AX-FLUMIOX in combination with a labeled burndown herbicide. [Application must be made no earlier than October 15 in Region 2 or November 15 in Region 1 or when soil temperature falls below 50°F at a 2 inch depth to maintain residual weed control into the spring (April 1 in Region 1 and May 1 in Region 2) or up until planting, whichever comes first.] AX-FLUMIOX can be used in a fall burndown or fallow seedbed program [outside of Regions 1 and 2], however the length of residual control may be variable.

Abnormally warm or wet winters will reduce the length of weed control observed in the spring.

[Fall Application Regions:

Region 1: Alabama, Arkansas, Georgia, Kentucky, Mississippi, Oklahoma, Tennessee and Virginia

Region 2: Delaware, Kansas, Illinois, Indiana, Iowa, Maryland, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, Pennsylvania, South Dakota, West Virginia and Wisconsin]

Weeds controlled by postemergence or residual activity are listed in Table 3. Preplant burndown treatment tank mixes and rates are:

Herbicide	Rate
Program 1 <sup>1</sup>	
AX-FLUMIOX	2 to 3 oz/A
Plus	
Glyphosate	0.5 to 1.0 lb ai/A (equivalent to 1 to 2 pt/A of
Plus	ROUNDUP Original <sup>®</sup> )
2,4-D LVE (2,4-D for use on preplant soybeans	0.5 to 1.0 lb ai/A (equivalent to 1 to 2 pt/A of 2,4-D
only)	4 LVE)
Plus	
NIS + AMS	0.5% x/x + 17 lbs/100 gals of water

or

Program 2 <sup>1</sup>	
AX-FLUMIOX	2 to 3 oz/A
Plus	
Glyphosate	0.5 to 1.0 lb ai/A (equivalent to 1 to 2 pt/A of
Plus	ROUNDUP Original <sup>®</sup> )
COC <sup>2</sup>	1pt/A
Or	Ör
NIS + AMS	0.5% v/v + 17 lbs/100 gals of water

Program 3 <sup>1</sup>	
AX-FLUMIOX	2 to 3 oz/A
Plus	
2,4-D LVE (2,4-D for use on preplant soybeans	0.5 to 1.0 lb ai/A (equivalent to 1 to 2 pt/A of 2,4-D
only)	4 LVE)
Plus	
COC	1 pt/A

<sup>1</sup> Dicamba (BANVEL®), at 0.188 lb. ai/A (6 fl. oz./A of BANVEL 4) can be added to Programs 1, 2 & 3 to assist in the control emerged broadleaves. Refer to dicamba label for rotational restrictions.

<sup>2</sup> Crop oil concentrate has been found to increase glyphosate burndown of emerged cutleaf eveningprimrose and Carolina geranium.

Table 3. Weeds Controlled by Fall and Spring Preplant Burn	ndown Programs
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Weeds Controlled		Postemerge	Postemergence		
COMMON NAME	SCIENTIFIC NAME	Program 1	Program 2	Program 3	Residual
	Weeds 3 inc	hes or less			
Chamomile, False	Matricaria maritime	Yes	Yes	No	Yes
Cheatgrass	Bromus tectorum	Yes	Yes	No	Yes
Chickweed, Common	Stellaria media	Yes	Yes	No	Yes
Chickweed, Mouseear	Cerastium vulgatum	Yes	Yes	No	Yes
Cockle, White	Silene latifolie	No	Yes	Yes	Yes
Dandelion	Taraxacum officinale	Yes	No	Yes <sup>2</sup>	Yes
Deadnettle, Purple	Lamium purpureum	Yes	Yes	Yes	Yes
Groundsel, Cressleaf	Senecio glabellus	Yes	Yes		Yes
Henbit	Lamium amplexicaule	Yes	Yes	Yes	Yes
Kochia	Kochia scoparia	Yes	Yes	Yes	Yes
Marestail/Horseweed	Conyza canadensis	Yes	Yes <sup>3</sup>	Yes	Yes
Mallow, Common	Malva Neglects	Yes	Yes	No	Yes
Prickly Lettuce	Lactuca serriola	Yes	Yes	Yes	Yes
Wormwood, Biennial	Artemisia biennis	Yes	Yes	Yes	Yes
		Weeds 12 in	ches or less		
Canola, Volunteer	Brassica napus	Yes	Yes	Yes	Yes
Carolina Geranium	Geranium carolinianum	Yes	Yes	Yes	
Evening primrose, Cutleaf <sup>4</sup>	Oenothera laciniata	Yes	Yes	Yes	Yes
Flixweed	Descurainia sophia	Yes	Yes	Yes	Yes
Mustard, Tansy	Descurainia pinnata	Yes	Yes	Yes	Yes
Mustard, Wild	Brassica kaber	Yes	Yes	Yes	Yes
Shepherd's-purse	Capsella bursa-pastoris	Yes	Yes	Yes	Yes

<sup>1</sup> Refer to glyphosate and/or 2,4-D labels for additional weeds controlled and rotational restrictions.

<sup>2</sup> Use 1 lb. ai/A of 2,4-D LVE (equivalent to 2 pt./A of 2,4-D 4 LVE) for control of emerged dandelion.

<sup>3</sup> Program 2 will not control emerged glyphosate resistant marestail/horseweed.

<sup>4</sup> To control cutleaf evening primrose that are nearing 12 inches in height or are past the rosette stage use Program 1.

Use Program 2 or 3 to control cutleaf evening primrose that are 12 inches or less and in the rosette stage.

#### SPRING BURNDOWN PROGRAMS

AX-FLUMIOX can be used in combination with labeled preplant burndown herbicides to assist in the postemergence burndown of emerged weeds and provide residual weed control prior to crop emergence. Weeds controlled by residual activity are listed in Table 1.

No-till planters that incorporate the soil during planting may result in decreased weed control in the row. Apply AX-FLUMIOX after planting peanuts and soybeans when these types of planters are used (within 3 days after planting soybeans, within 2 days after planting peanuts and before the crop emerges). AX-FLUMIOX cannot be applied after planting field corn.

AX-FLUMIOX can be used [at 1 to 3 oz/A] with labeled preplant burndown herbicides to enhance the speed of burndown and increase weed spectrum.

AX-FLUMIOX can be used [at 1 to 3 oz/A [1 to 2 oz/A]] in field corn, peanut and soybean burndown programs. See "DIRECTIONS FOR USE IN FIELD CORN", "DIRECTIONS FOR USE IN PEANUT", "DIRECTIONS FOR USE IN SOYBEAN" for more information.

### DIRECTIONS FOR USE IN FALL AND SPRING BURNDOWN PROGRAMS IN COTTON AND SUGARCANE

For Use in the States of Arizona, California and Hawaii Only

### **RESTRICTIONS AND LIMITATIONS**

- Do not apply to frozen or snow covered soil.
- Do not perform any tillage operation after application or residual weed control will be reduced.
- AX-FLUMIOX can be used [at 1 to 2 oz/A] with labeled burndown herbicides to enhance the speed of burndown and increase weed spectrum.
- A minimum of 30 days must pass, and 1 inch of rainfall/irrigation must occur, between AX-FLUMIOX application and planting of conventionally tilled cotton.
- A minimum of 14 days must pass, and 1 inch of rainfall/irrigation must occur, between AX-FLUMIOX application and planting of no-till or strip-till cotton when a AX-FLUMIOX rate of 1 oz/A is used and 21 days when a AX-FLUMIOX rate of 1.5 to 2 oz/A is used. The field must contain the stubble from the previous crop.
- AX-FLUMIOX can be applied as part of a burndown application to sugarcane until cane emergence.
- Observe all rotational intervals prior to planting as listed in the "ROTATIONAL RESTRICTIONS" table.
- Refer to most restrictive label for minimum interval between application and planting.

#### FALL BURNDOWN PROGRAMS

AX-FLUMIOX [, at 2 to 4 oz/A,] can be used in the fall to provide residual weed control in fields that will be planted the following spring with cotton or sugarcane [(refer to Rotational Restrictions table for rates and rotational intervals prior to planting)]. Weeds controlled by residual activity are listed in Table 1 and Table 7. If weeds have emerged at the time of application, use AX-FLUMIOX in combination with a labeled burndown herbicide. [Application must be made no earlier than October 15 in Region 2 or November 15 in Region 1 or when soil temperature falls below 50°F at a 2 inch depth to maintain residual weed control into the spring (April 1 in Region 1 and May 1 in Region 2) or up until planting, whichever comes first.]

[AX-FLUMIOX can be used in a fall burndown or fallow seedbed program outside of Regions 1 and 2.]

Abnormally warm or wet winters will reduce the length of weed control observed in the spring. **SPRING BURNDOWN PROGRAMS** 

AX-FLUMIOX[ at 1 to 2 oz/A] can be used in combination with labeled preplant burndown herbicides to assist in the postemergence burndown of emerged weeds and provide residual weed control prior to crop emergence in fields that will be planted with cotton or sugarcane. Weeds controlled by residual activity are listed in Table 1.

No-till planters that incorporate the soil during planting may result in decreased weed control in the row.

#### DIRECTIONS FOR USE IN FALL AND SPRING BURNDOWN PROGRAMS IN RICE, SORGHUM, SUNFLOWERS, TOBACCO AND WHEAT (Preplant to Crop)

# For Use in the States of Arizona, California and Hawaii Only

#### RESTRICTIONS AND LIMITATIONS

- Do not apply to frozen or snow covered soil.
- Do not perform any tillage operation after application or residual weed control will be reduced.
- AX-FLUMIOX can be used [at 1 to 2 oz/A] with labeled burndown herbicides to enhance the speed of burndown and increase weed spectrum. A minimum of 30 days must pass, and 1 inch of rainfall/irrigation must occur, between AX-FLUMIOX application and planting of rice, sorghum, sugarcane, sunflowers, tobacco or wheat. Refer to most restrictive label for minimum interval between application and planting.
- [Observe all rotational intervals prior to planting as listed in the "ROTATIONAL RESTRICTIONS" table.]

#### FALL BURNDOWN PROGRAMS

AX-FLUMIOX can be used in combination with labeled burndown programs to control emerged weeds and provide residual weed control in fields that will be planted the following spring [(refer to Rotational Restrictions table for rates and rotational intervals prior to planting)]. [Application must be made no earlier than October 15 in Region 2 or November 15 in region 1 or when soil temperature falls below 50°F. at a two inch depth to maintain residual weed control into the spring.]

Abnormally warm winters may reduce the length of weed control observed in the spring.

#### SPRING BURNDOWN PROGRAMS

AX-FLUMIOX can be used in combination with labeled burndown programs to control emerged weeds and provide residual weed control prior to crop emergence. Weeds controlled by residual activity are listed in Table 1 Section A. Crops that will be planted following application must be in compliance with the rotational interval listed in the "Rotational Restriction" table above.

No-till planters that incorporate the soil during planting may result in decreased weed control in the row.

#### DIRECTIONS FOR USE IN FALL BURNDOWN PROGRAMS IN FIELDS TO BE PLANTED TO BARLEY, FIELD PEA, FLAX, LENTIL, SAFFLOWER, SUNFLOWER AND SPRING WHEAT (Preplant to Crop)

## For Use in the States of Arizona, California and Hawaii Only

#### **RESTRICTIONS AND LIMITATIONS**

- Do not apply to frozen or snow covered soil.
- Do not perform any tillage operation after application or residual weed control will be reduced.
- AX-FLUMIOX can be mixed with 2.4-D and/or glyphosate formulations labeled for burndown programs(preplant to crop) in accordance with the most restrictive label limitations and precautions. Labeled application rates cannot be exceeded. Do not mix AX-FLUMIOX with any product containing a label prohibition against such mixing.
- [Observe all rotational intervals prior to planting as listed in the "ROTATIONAL RESTRICTIONS" • table.]

#### FALL BURNDOWN PROGRAMS

AX-FLUMIOX can be used [at 2 to 4 oz/A] with labeled burndown herbicides to enhance the speed of burndown, increase weed spectrum and provide residual weed control of the weeds listed in Table 3 until the following spring. Rotational intervals must be followed for crop to be planted in the spring following the fall AX-FLUMIOX application. Refer to most restrictive label for minimum interval between application and planting.

#### DIRECTIONS FOR USE IN FALLOW LAND For Use in the States of Arizona, California and Hawaii Only

#### AX-FLUMIOX may be used as a preemergence fallow treatment. Weeds controlled by residual activity are listed in Table 1.

AX-FLUMIOX [ at 2 to 4 oz/A] can be used in the fall to provide residual weed control in fallow fields [(refer to Rotational Restrictions table for rates and rotational intervals prior to planting)]. If weeds have emerged at the time of application, use AX-FLUMIOX in combination with a labeled fallow herbicide. [Application must be made no earlier than October 15 in Region 2 or November 15 in Region 1 or when soil temperature falls below 50°F at a 2 inch depth to maintain residual weed control into the spring (April 1 in Region 1 and May 1 in Region 2).] Abnormally warm or wet winters will reduce the length of weed control observed in the spring.

AX-FLUMIOX [ at 1 to 4 oz/A] can be used in spring in combination with labeled burndown herbicides to control emerged weeds and provide residual weed control.

# DIRECTIONS FOR FALLOWBED USE ON TRANSPLANTED MELON, PEPPER AND TOMATO BEDS. For Use in Arizona, California and Hawaii Only

# **RESTRICTIONS AND LIMITATIONS**

• Do not apply more than 4 oz of AX-FLUMIOX per acre during a single application.

• Do not apply more than 4 oz of AX-FLUMIOX per acre during a single growing season.

Many weather related factors, including high wind or heavy rains or cool conditions at or near crop transplanting, may result in crop injury in fields treated with AX-FLUMIOX. On occasion this has resulted in a delay in maturity.

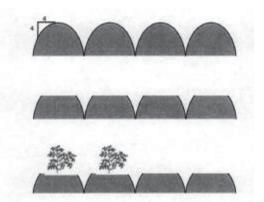
#### TIMING TO CROP

#### AX-FLUMIOX FALLOWBED USE PRIOR TO TRANSPLANTING

AX-FLUMIOX RATES	ADJUVANT	GPA	TRANSPLANTING INTERVAL
4oz / A	Required by burndown	Ground - 20 to 40	2 Months
	tank mix partner		
Application Method: Apply with a burndown herbicide labeled for the control of emerged weeds. AX-			
FLUMIOX, when used alone, will not provide satisfactory control of emerged weeds.			

USE RESTRICTIONS FOR AX-FLUMIOX FOR PREEMERGENCE FALLOWBED WEED CONTROL PRIOR TO TRANSPLANTING

- 1. Always read and follow all label directions when using any pesticide alone or in tank mix combinations.
- 2. The top 4 inches of the bed, from a horizonal and vertical perspective, where the crop will be transplanted, must be removed prior to transplanting.
- 3. Use only healthy transplants. Do not use on direct seeded crops.



Beds are formed and AX-FLUMIOX is applied with a burndown herbicide.

A minimum of 2 months after AX-FLUMIOX application, the tops of the beds are removed and the soil from the tops of the beds is placed in the area between the beds.

Crops are transplanted into beds.

- 4. [On flat beds (tomato only), the soil must be incorporated to a depth of at least 4 inches, twice, prior to transplanting. Failure to incorporate may result in stand reduction and/or crop injury.]
- 5. This use pattern makes no claim for in-season weed control after the beds have been disturbed.
- 6. Do not apply when weather conditions favor spray drift.

### DIRECTIONS FOR USE IN ESTABLISHED ALFALFA

#### RESTRICTIONS AND LIMITATIONS

- Do not apply more than 4 oz of AX-FLUMIOX per acre during a single application.
- Do not apply more than 8 oz of AX-FLUMIOX per acre during a single growing season.
- Do not make a sequential AX-FLUMIOX application within 60 days of the first AX-FLUMIOX application.
- Do not apply to alfalfa with greater than 6 inches of growth. Application will result in burning of treated leaves and stems.
- Do not apply within 25 days of harvest or grazing.
- Do not use on alfalfa grown for seed unless approved by a State authority to support a Special Local Need (SLN) under FIFRA section 24(c).
- Only apply with an adjuvant or tank mix with products formulated as an emulsifiable concentrate "EC" when targeting control of emerged weeds.
- Crop burn and/or stunting should be expected and accepted if AX-FLUMIOX is used with an adjuvant, a tank mix partner formulated as an emulsifiable concentrate (EC) or a tank mix partner formulated with an adjuvant.

- Application with paraquat can be used to burndown winter annuals prior to winter dormant period.
- Do not use on intended mixed alfalfa-grass stands.

#### TIMING TO ALFALFA

AX-FLUMIOX may be applied to established alfalfa with a maximum amount of growth of 6 inches or less for the preemergence control of the weeds listed in Table 7, Weeds Controlled by Residual Activity of AX-FLUMIOX. Established alfalfa is defined as alfalfa planted in the fall or spring which has gone through a first cutting/mowing. Application to alfalfa with greater than 6 inches of growth may result in unacceptable crop injury.

For control of winter annual weeds: the best timing for preemergence control is in the fall immediately after the last cutting or sheeping-off has occurred.

For control of summer annual weeds: the best timing for preemergence control is in the spring prior to alfalfa growth and before 6 inches of growth.

#### TIMING TO WEEDS

#### Preemergence - Preemergence To Weeds

Apply AX-FLUMIOX before alfalfa growth exceeds 6 inches in height for the preemergence control of weeds listed in Table 7, Weeds Controlled by Residual Activity of AX-FLUMIOX. Make applications as soon as possible after cutting and removing alfalfa to minimize injury to alfalfa growth.

#### Postemergence Dodder Suppression

Apply AX-FLUMIOX at 4 oz per acre with an adjuvant for postemergence suppression of dodder. Tank mixes with Pursuit® Herbicide or Raptor® Herbicide will increase control.

#### **RESTRICTIONS AND LIMITATIONS**

• Do not apply more than 4 oz/A of AX-FLUMIOX per acre during a single application on annual or perennial artichoke varieties after new planting.

DIRECTIONS FOR USE IN ARTICHOKE

- Do not apply more than 6 oz/A of AX-FLUMIOX per acre during a single application on perennial artichoke varieties after cutback.
- Do not apply more than 6 oz of AX-FLUMIOX per acre during a single growing season.
- Application to artichoke foliage may result in unacceptable crop injury.

#### TIMING TO ARTICHOKE

**Annual Varieties:** AX-FLUMIOX may be applied to artichoke beds prior to transplanting. Application of AX-FLUMIOX must be made to the beds no later than 2 days prior to transplanting. Irrigation or rainfall after transplanting is necessary to activate the AX-FLUMIOX. Do not irrigate the AX-FLUMIOX before transplanting. Heavy irrigation or rainfall may result in crop injury. The injury is usually transitory and the plants will quickly grow out of the crop damage. Minimize soil disturbance during transplanting, as preemergence weed control will decrease as soil disturbance increases.

**Perennial Varieties:** AX-FLUMIOX may be applied to artichokes after planting of crown pieces or "cut back" of mature plants. Applications of AX-FLUMIOX must be made within 2 days after planting or cut back and prior to artichoke emergence. Application after the artichokes have begun to crack, or are emerged, will result in crop injury. Do not apply when artichokes have begun to emerge (cracking).

#### TIMING TO WEEDS

#### Pre-plant (annual)/Preemergence (perennial) to Artichokes - Preemergence to Weeds

Apply AX-FLUMIOX pre-plant to annual artichokes for preemergence control of the weeds. For perennial artichokes apply before cracking for preemergence control of the weeds. Apply prior to weed emergence. A post-emergence herbicide may be necessary to control emerged weeds. AX-FLUMIOX may be applied to annual or perennial artichokes as specified above for preemergence control of weeds listed in Table 7, Weeds Controlled by Residual Activity of AX-FLUMIOX.

### DIRECTIONS FOR USE IN ESTABLISHED ASPARAGUS

### RESTRICTIONS AND LIMITATIONS

- Do not apply more than 6 oz. of AX-FLUMIOX per acre during a single application.
- Do not apply more than 6 oz. of AX-FLUMIOX per acre during a single growing season.
- Apply only to dormant asparagus no less than 14 days before spears emerge. Application to nondormant asparagus may result in unacceptable crop injury.
- Do not work soil within 60 days prior to application in the spring. Soil can be worked after spear harvest in preparation for AX-FLUMIOX application prior to fern emergence. Treated soil that is splashed onto the ferns may result in spotting.

#### TIMING TO ASPARAGUS - Dormant

AX-FLUMIOX may be applied to dormant asparagus for preemergence control of the weeds listed in Table 10, Weeds Controlled by Preemergence Application of AX-FLUMIOX. Application to non-dormant asparagus will result in unacceptable crop injury. Applications must be made no less than two weeks prior to spear emergence and must be sprinkler or rainfall incorporated with 0.5 to 0.75 inches of water or some scoring may result.

#### TIMING TO ASPARAGUS - Post Harvest

Apply AX-FLUMIOX after the final harvest of the season, but prior to fern emergence, for preemergence control of the weeds listed in Table 10, Weeds Controlled by Preemergence Application of AX-FLUMIOX. Application after fern emergence will result in unacceptable crop injury. Apply no less than two weeks prior to fern emergence and must be sprinkler or rainfall incorporated with 0.5 to 0.75 inches of water. Add a burndown tank mix partner for the control of emerged weeds labeled for asparagus in accordance with the most restrictive labeled limitations and precautions.

#### TIMING TO WEEDS

#### Burndown - Dormant Asparagus, Postemergence to Weeds

AX-FLUMIOX may be used for residual weed control, as well as to assist in postemergence burndown of many annual and perennial weeds where asparagus is dormant. For control of emerged weeds, tank mix AX-FLUMIOX with paraquat. Refer to paraquat label for specified rate and application parameters. To ensure thorough coverage, use a minimum of 15 gals, of spray solution per acre. AX-FLUMIOX tank mixes applied to assist in the control of emerged weeds must be applied with a non-ionic surfactant at 0.25% v/v. A spray grade nitrogen source (either ammonium sulfate at 2 to 2.5 lbs/A or 28 to 32% nitrogen solution at 1 to 2 qts/A) may be added to increase herbicidal activity.

#### Burndown - After Last Harvest of Season, Postemergence to Weeds

Use AX-FLUMIOX for residual weed control and to assist in postemergence burndown for many annual and perennial weeds where asparagus harvest has been completed for the year. For control of emerged weeds, use a labeled tank mix partner with activity on the emerged weeds.

#### Preemergence - Dormant Asparagus or After Last Harvest of Season, Preemergence to Weeds

Apply AX-FLUMIOX to dormant asparagus for the preemergence control of weeds listed in Table 10, Weeds Controlled by Preemergence Application of AX-FLUMIOX.

#### DIRECTIONS FOR USE IN CELERY

# For Use in the States of California, Michigan and Wisconsin Only RESTRICTIONS AND LIMITATIONS

- Do not apply more than 3 oz of AX-FLUMIOX per acre during a pre-transplant application.
- [In the state of California, use as pre-transplant application only.]
- Do not apply more than 3 oz of AX-FLUMIOX per acre during a post-transplant application.
- Do not apply more than 3 oz of AX-FLUMIOX per acre during a single growing season.
- Do not use with an adjuvant.
- Post transplant applications must be made between 3 to 7 days following transplanting.
- Do not apply as part of a tank mix.

#### TIMING TO CELERY

Apply AX-FLUMIOX at 3 oz/A prior to transplanting, or between 3 and 7 days following transplanting, for preemergence control of the weeds listed in Table 1, Broadleaf Weeds Controlled by Residual Activity of AX-FLUMIOX.

#### TIMING TO WEEDS

Use AX-FLUMIOX prior to weed emergence for residual control.

Read tank mix product label for rates and weeds controlled. Always read and follow label directions for all tank mix products before using. The most restrictive labeling of any tank mix product must be followed. AX-FLUMIOX, when applied according to label use directions, will control the weeds listed in Table 1, Broadleaf Weeds Controlled by Residual Activity of AX-FLUMIOX. This label makes no claims concerning control of other weed species.

#### DIRECTIONS FOR USE ON CHICKPEA (GARBANZO BEAN)

# For Use Only in Arizona, California, Hawaii, Idaho, Oregon and Washington RESTRICTIONS AND LIMITATIONS

• Do not apply more than 2.0 oz of AX-FLUMIOX per acre during a single application.

• Do not apply more than 2.0 oz of AX-FLUMIOX per acre during a single growing season.

Many weather related factors, including high wind, splashing or heavy rains or cool conditions at or near crop emergence, may result in garbanzo bean injury in fields treated with AX-FLUMIOX. On occasion this has resulted in a delay in maturity.

#### TIMING TO CHICKPEA (GARBANZO BEAN)

AX-FLUMIOX may be applied to garbanzo beans within 2 days after planting for the preemergence suppression of the weeds listed in Table A, Broadleaf Weeds Controlled by Residual Activity of AX-FLUMIOX. Tank mix AX-FLUMIOX with other labeled herbicides for broad spectrum weed control.

#### TIMING TO WEEDS

AX-FLUMIOX may be applied to garbanzo beans prior to planting or preemergence (after planting). Preemergence application of AX-FLUMIOX must be made within 2 days after planting and prior to garbanzo bean emergence. Application after the garbanzo beans have begun to crack, or are emerged, will result in severe crop injury. Application must not be made when garbanzo beans have begun to crack.

Preplant incorporation (PPI) applications may result in reduced weed control.

#### ADDITIONAL RESIDUAL GRASS CONTROL

AX-FLUMIOX can be tank mixed with pendimethalin for additional grass control.

Table A. Broadleaf Weeds Controlled by Residual Activity of AX-FLUMIOX					
	BROADLEAF WEED SPECIES				
SECTION A	SECTION A				
COMMON NAME	SCIENTIFIC NAME	ORGANIC MATTER	SOIL TYPE	AX-FLUMIOX RATE	
Carpetweed	Mollugo verticillata	Up to 5%	All Soil	2 oz/A	
Chickweeds			Types		
Common	Stellaria media				
Mouseear	Cerastium vulgatum				
Dandelion	Taraxacum officinale				
Eclipta	Eclipta prostrata				
Eveningprimrose, Cutleaf	Oenothera laciniata				
Field Pennycress	Thlaspi arvense				
Florida Pusley	Richardia scabra				
Henbit	Lamium amplexicaule				
Lambsquarters, Common	Chenopodium album				
Little Mallow	Malva parviflora				
Marestail/Horseweed	Conyza canadensis				
Mayweed/False Chamomile	Matricaria maritima				
Nightshades					
Black	Solarium nigrum				

Eastern Black	Solanum ptycanthum			
Hairy	Solarium sarrachoides			
Pigweeds				
Redroot	Amaranthus retroflexus			
Smooth	Amaranthus hybridus			
Spiny Amaranth	Amaranthus spinosus			
Tumble	Amaranthus albus			
Prickly Lettuce	Lactuca serriola			
Prickly Sida (Teaweed)	Sida spinosa			
Puncturevine	Tribulus terrestris			
Purslane, Common	Portulaca oleracea			
Radish, Wild	Raphanus raphanistrum			
	Calandrinia ciliata var.			
Redmaids	menziesii			
Shepherd's-purse	Capsella bursa-pastoris			
Smallflower Morningglory	Jacquemontia tamnifolia			
Sowthistle, Prickly	Sonchus asper			
Spotted Spurge	Euphorbia maculata			
Venice Mallow	Hibiscus trionum			
SECTION B				
All weeds listed in Se	ction A plus:			
COMMON NAME	SCIENTIFIC NAME	ORGANIC MATTER	SOIL TYPE	AX- FLUMIOX RATE
Coffee Senna	Cassia occidentalis	Up to 3%	All Soil	2 oz/A
Common Raqweed	Ambrosia artemisiifolia	- ·	Types	
False Chamomile	Tripleurospermum			
Florida Beqqarweed	Desmodium tortuosum			
Golden Crownbeard	Verbesina encelioides			
Hairv Indigo	Indiciofera hirsuta			
Hemp. Sesbania	Sesbania exaltata	3 to 5%	Coarse and	2 oz/A
Jimsonweed	Datura stramonium		Medium	
Kochia	Kochia scoparia		Soils:	
London Rocket	Sisvmbrium irio		(sandy	
Morningglories			loam,	
Entireleaf	Ipomoea hederacea var. integriuscula		loamy sand, loamy,	
lvyleaf	Ipomoea hederacea	-	siltloam,	
Red/Scarlet	Ipomoea coccinea		silt,	
Tall	Ipomoea purpurea		sandy clay,	
Mustard, Wild	Brassica kaber		sandy clay	
Palmer Amaranth	Amaranthus palmeri		loam)	
Spurred Anoda	Anoda cristata	-	Fine Soils:	2 oz/A
Tropic Croton	Croton Qlandulosus	-	(silty clay,	
Waterhemps		-	silty clay	
Common	Amaranthus rudis	-	loam, clay,	
Tall	Amaranthus tuberculatus	-	clay loam)	
Wild Poinsettia	Euphorbia heterophvlla	-	,,	
Yellow Rocket	Barbarea vulgaris	-		
	Daivaita vulyans	1		

#### DIRECTIONS FOR USE ON CABBAGE AND CHINESE CABBAGE (TIGHT HEADED VARIETIES ONLY) ROW MIDDLES

# DIRECTIONS FOR USE IN ROW MIDDLES RESTRICTIONS AND LIMITATIONS

• AX-FLUMIOX can only be applied in row middles between raised plastic mulched beds that are at least 4 inches higher than the treated row middle and the mulched bed must have a minimum of a 24-inch bed width.

- Spray must remain between raised beds and contact no more than the bottom 1 inch of the side of the raised bed.
- Do not apply after crops are transplanted.
- Do not apply more than 4 oz of AX-FLUMIOX per acre during a single application.
- Do not apply more than 8 oz of AX-FLUMIOX per acre during a single growing season.
- All applications must be made with shielded or hooded equipment.
- Injury can occur if soil particles treated with AX-FLUMIOX contact the crop.
- A rainfall after application but prior to transplanting is required.

#### RATE

Up to 4 oz/acre per application

#### **TIMING TO CROP**

AX-FLUMIOX may be applied at 4 oz per acre as a shielded or hooded application to row middles after plastic is laid up to transplanting. Spray must be directed to the row middle and contact no more than the bottom 1 inch of the side of the raised bed. If the top of the mulch beds (where plants are to be transplanted) is contacted, severe injury can occur due to foliage contact with treated plastic.

#### WEED CONTROL AND TANK MIXING

AX-FLUMIOX provides preemergence residual control of the weeds listed in Table 7, Weeds Controlled by Residual Activity of AX-FLUMIOX, as well as to assist in the postemergence control of emerged weeds. A registered preemergence grass herbicide may be added for control of additional grassy weeds. For control of emerged weeds, tank mix AX-FLUMIOX with paraquat, Aim<sup>™</sup>, glyphosate, or other registered burndown herbicide. Refer to tank mix partner label for specified rates.

#### DIRECTIONS FOR USE ON CACTUS (PRICKLY PEAR)

#### **RESTRICTIONS AND LIMITATIONS**

- Do not apply more than 12 oz of AX-FLUMIOX per acre during a single application.
- Do not apply more than 12 oz of AX-FLUMIOX per acre during a 12 month period.
- Use a maximum AX-FLUMIOX rate of 6 oz/A per application on any soil that has a sand plus gravel content over 80% if plants are less than 3 years of age. (Two applications of 6 oz/A in a 12 month period can still be made as long as there have been 60 days between applications).
- Do not apply to farm alleys or roads where traffic may result in treated dust settling onto crops or other desirable vegetation.
- Raise mower height during all mowing to reduce dust. Dust created by mowing can drift onto desirable vegetation resulting in injury.
- Do not mow treated areas. Dust created by mowing may drift onto desirable vegetation resulting in injury.
- Follow the most restrictive label limitations and precautions of the tank mix product(s) being used.
- Avoid direct or indirect spray contact to foliage.
- Do not apply within 60 days prior to harvest.
- Do not apply to plants established less than one year.

Apply AX-FLUMIOX as a uniform broadcast application to the plantation floor or as a uniform band directed at the base of the cactus. Apply AX-FLUMIOX in the fall to maximize the potential for rainfall to activate and set the herbicide. Do not apply over the top of crop or allow spray to come in contact with crop as a result of application or drift.

#### **Preemergence Application**

Apply 6 to 12 oz (0.188 to 0.38 lb ai/A) of AX-FLUMIOX per broadcast acre as a preemergence application. AX-FLUMIOX applications must be made prior to weed emergence for control of weeds listed in Table 10, Weeds Controlled by Preemergence Application of AX-FLUMIOX. Make preemergence (to weed emergence) applications of AX-FLUMIOX to a weed-free soil surface. Preemergence applications of AX-FLUMIOX must be completed prior to weed emergence. Moisture is necessary to activate AX-FLUMIOX on soil for residual weed control. Dry weather following application of AX-FLUMIOX may reduce effectiveness. However, when adequate moisture is received after dry conditions, AX-FLUMIOX will control susceptible germinating weeds.

#### [Postemergence Application

Apply 6 to 12 oz (0.188 to 0.38 lb ai/A) of AX-FLUMIOX per broadcast acre plus an adjuvant (0.25% v/v nonionic surfactant or 1 qt/A crop oil concentrate). The addition of an adjuvant enhances AX-FLUMIOX activity on emerged weeds. Thorough spray coverage is necessary to maximize the postemergence activity of AX-FLUMIOX.

Refer to Table 1, Broadleaf Weeds Controlled by Residual Activity of AX-FLUMIOX for weeds controlled by the residual activity of AX-FLUMIOX. Tank mix AX-FLUMIOX with a labeled burndown herbicide for control of the emerged weeds.

Residual weed control will be reduced if vegetation prevents the AX-FLUMIOX from reaching the soil surface. If vegetation is heavy, use a burndown herbicide with AX-FLUMIOX and make a sequential AX-FLUMIOX application prior to the emergence of new weeds.]

#### **Carrier Volume and Spray Pressure**

To ensure thorough coverage in burndown applications, use a minimum of 15 gallons of spray solution per acre. Use higher gallonage if dense vegetation or heavy crop residue is present.

Nozzle selection must meet manufacturer's gallonage and pressure specifications.

#### **Banded Application**

Rates listed in Table 13, Weeds Controlled by Postemergence Activity of AX-FLUMIOX Tank Mixes, refer to a broadcast application covering the entire acre. Refer to the Band Application table in Use Information Section to calculate amount needed per acre when making a banded application.

#### DIRECTIONS FOR USE IN COTTON

# For Use in the States of Arizona, California and Hawaii Only

#### **RESTRICTIONS AND LIMITATIONS**

- Do not apply more than 2 oz. of AX-FLUMIOX per acre during a single application.
- Do not apply more than 4 oz. of AX-FLUMIOX per acre during a single growing season.
- Do not make a sequential AX-FLUMIOX application within 30 days of the first AX-FLUMIOX application.
- Do not apply within 60 days of harvest.

# ENVIRONMENTAL CONDITIONS AND BIOLOGICAL PERFORMANCE

## Hooded, Shielded and Layby Application

For best results, apply AX-FLUMIOX to actively growing weeds within the growth stages indicated in this label. Applying AX-FLUMIOX under conditions that do not promote active weed growth will reduce herbicide effectiveness. Do not apply AX-FLUMIOX when the crop or weeds are under stress due to drought, excessive water, extremes in temperature, disease or low humidity. Weeds under stress tend to become less susceptible to herbicidal action. AX-FLUMIOX is most effective when applied under sunny conditions at temperatures above 65°F.

AX-FLUMIOX is rainfast one hour after application. Do not apply if rain is expected within one hour of application or postemergence efficacy may be reduced. Rainfall within one hour of application will not adversely affect residual activity.

#### HERBICIDE RATE

#### Hooded, Shielded and Layby Application

For postemergence weed control, apply AX-FLUMIOX through a hooded or shielded sprayer or at layby, at 2 oz/A, in combinations with MSMA or at 1 to 2 oz./A in combination with glyphosate, to assist in the control of weeds listed in Table 4. Residual weed control can also be obtained through hooded, shielded and layby application of AX-FLUMIOX. Weeds that are controlled through residual activity of AX-FLUMIOX are listed in Table 1. Weeds that are suppressed by residual activity of AX-FLUMIOX are listed in Table 2.

BROADLEAF WEED SPECIE		WEED HEIGHT (inches)
COMMON NAME	SCIENTIFIC NAME	2 OZ./a
Bindweed, Field <sup>1</sup>	Convolvulus arvensis	4
Carpetweed	Mollugo verticillata	4
Chickweed, Common	Stellaria media	4
Cocklebur, Common	Xanthium strumarium	4
Florida Beggarweed	Desmodium tortuosum	2
Hemp Sesbania	Sesbania exaltata	6
Jimsonweed	Datura stramonium	4
Lambsquarters, Common	Chenopodium album	4
Morningglories		
Entireleaf	Ipomoea hederacea var. integriuscula	4
lvyleaf	Ipomoea hederacea	4
Pitted	lpomoea lacunose	4
Red	Ipomoea coccinea	4
Tall	Ipomoea purpurea	2
Mustard, Wild	Brassica kaber	6
Nightshades		
Black	Solanum nigrum	4
Eastern Black	Solanum ptycanthum	4
Hairy	Solanum sarrachoides	4
Pigweeds		
Palmer Amaranth	Amaranthus palmeri	4
Red root	Amaranthus retroflexus	4
Smooth	Amaranthus hybridus	4
Plaintain, Broadleaf	Plantago major	6
Prickly Sida (Teaweed)	Sida spinosa	4
Purslane, Common	Portulaca oleracea	2
Ragweeds		
Common	Ambrosia artemisiifolia	2
Giant	Ambrosia trifida	4
Rice Flatsedge	Cyperus iria	2
Sicklepod	Senna obtusifolia	4
Smartweeds		
Ladysthumb	Polygonum persicaria	4
Pale	Polygonum lapathifolium	4
Pennsylvania	Polygonum pensylvanicum	4
Spotted Spurge	Euphorbia maculata	4
Velvetleaf	Abutilon theophrasti	4
Venice Mallow	Hibiscus trionum	2
Waterhemps		
Common	Amaranthus rudis	2
Tall	Amaranthus tuberculatus	2

 Table 4. Emerged Broadleaf Weeds Controlled by Hooded, Shielded and Layby Application of AX 

 FLUMIOX Tank Mixes With Glyphosate or MSMA in Cotton

<sup>1</sup> AX-FLUMIOX tank mixes will control the above ground portion of field bindweed. Repeated applications will be needed to control regrowth.

#### CARRIER VOLUME AND SPRAY PRESSURE

#### Hooded, Shielded and Layby Application

To ensure thorough coverage in hooded, shielded and layby applications, use 15 to 30 gals. spray solution per treated acre. Use 20 to 30 gals. per treated acre under heavy weed pressure. Nozzle selection must meet manufacturer's gallonage and pressure specifications for application method being used. Do not use "Flood Jet" nozzles, as they tend to increase the chance of crop injury.

#### ADDITIVES

#### Hooded, Shielded and Layby Application

Weed control from hooded, shielded or layby application of AX-FLUMIOX in cotton requires the addition of an agronomically approved non-ionic surfactant to the spray mixture. Non-ionic surfactant must contain at least 80% active ingredient. Verify mixing compatibility qualities by a jar test. **The use of crop oil concentrates, methylated seed oils, organo-silicant surfactants or products containing these ingredients, may result in severe crop injury and must not be used.** 

#### **APPLICATION EQUIPMENT**

Apply AX-FLUMIOX tank mixes, with ground equipment using standard commercial sprayers equipped with nozzles designed to deliver the desired spray pressure and spray volume. Ensure that application equipment is clean and in good repair. Nozzles must meet manufacturer's specifications for spray pattern and placement on spray boom and must be checked frequently for accuracy.

#### TIMING TO COTTON

#### Hooded and Shielded Application

AX-FLUMIOX tank mixes may be applied with a hooded or shielded sprayer after cotton has reached a minimum of 6 inches in height. All nozzles must be under the hood or behind the shield to ensure no spray solution comes in contact with the cotton. Care must be taken to ensure the spray solution or drift does not come in contact with the cotton or severe crop injury can occur.

#### Layby Application

Layby application of AX-FLUMIOX tank mixes may be made once cotton has reached a minimum of 16 inches in height. Cotton that is smaller than 16 inches in height may be injured by AX-FLUMIOX applications. AX-FLUMIOX application must be directed to the lower 2 inches of the cotton stem to avoid crop injury.

#### TIMING TO WEEDS

AX-FLUMIOX tank mix applications must be made to weeds within the height range given in Table 4. **TANK MIXES** 

AX-FLUMIOX must be tank mixed with one of the herbicides listed in Table 5 for postemergence control of the weeds listed in Table 4.

TANK MIX PARTNER	TARGET WEEDS	HOODED AND SHIELDED	LAYBY
Glyphosate	Perennial Grasses and Broadleaves	Х	X <sup>1</sup>
MSMA	Annual Grasses Yellow Nutsedge	Х	Х

#### Table 5. Tank Mixes with AX-FLUMIOX for Hooded, Shielded and/or Layby Use in Cotton

<sup>1</sup> For use only in cotton with the ROUNDUP READY gene.

#### DIRECTIONS FOR USE IN CUCURBIT VEGETABLES (ROW MIDDLES)

**Cucurbit Vegetables (Crop Group 9) including**: chayote (fruit); Chinese Waxgourd (Chinese preserving melon); citron melon; cucumber; gherkin; gourd, edible (includes hyotan, cucuzza, hechima, Chinese okra); *Momordica* spp. (includes balsam apple, balsam pear, bittermelon, Chinese cucumber); muskmelon (includes cantaloupe); pumpkin; squash, summer; squash, winter (includes butternut squash, calabaza, hubbard squash, acorn squash, spaghetti squash); watermelon

#### **RESTRICTIONS AND LIMITATIONS**

- Do not apply more than 4 oz. of AX-FLUMIOX per acre during a single application.
- Do not apply more than 8 oz. of AX-FLUMIOX per acre during a single growing season.
- Do not use with an adjuvant.
- Grow plants on raised plastic mulched beds that are higher than the treated row middle.
   Arizona, California and Hawaii only: For fallowbed application on transplanted melon beds follow directions for use below.

- Spray must be directed to the row middle, away from the crop bed and with minimal contact with plastic, including the sides of the bed. If top of mulch beds (where plants are to be transplanted) is contacted, severe injury can occur due to foliage contact with treated plastic. In this scenario, a rainfall event of ½ inch (natural or irrigation) must occur prior to transplanting to reduce AX-FLUMIOX residues.
- Drift of treated soil particles onto plants may cause contact injury.
- Irrigate treated field after application and prior to transplanting with minimum of 1/4 inch of water if rainfall does not occur between application and transplanting.
- All applications must be made with hooded or shielded equipment.

#### TIMING TO CUCURBIT VEGETABLES

Apply AX-FLUMIOX at 4 oz. per acre as a hooded or shielded application to row middles up to 14 days prior to transplanting or seeding for preemergence control of the weeds listed in Table 7, Weeds Controlled by Residual Activity of AX-FLUMIOX, as well as to assist in the postemergence control of emerged weeds. A second application of AX-FLUMIOX at 4 oz per acre may be applied up to 21 days after transplanting or emergence if needed. Do not apply during or after bloom.

#### TIMING TO WEEDS

AX-FLUMIOX may be used for residual weed control, as well as to assist in postemergence burndown of many annual and perennial weeds in row middles. A registered preemergence grass herbicide may be added for control of additional grassy weeds. For assisting in the control of emerged weeds, tank mix AX-FLUMIOX with paraquat, Aim<sup>™</sup> or other registered burndown herbicide. Do not tank mix with glyphosate after transplanting. Refer to tank mix partner's label for specified rate and application parameters.

Read tank mix product label for rate and weeds controlled. Always read and follow label directions for all tank mix products before using. The most restrictive labeling of any tank mix product must be followed. AX-FLUMIOX, when applied according to label use directions, will control the weeds listed in Table 7, Weeds Controlled by Residual Activity of AX-FLUMIOX. This label makes no claims concerning control of other weed species.

#### DIRECTIONS FOR USE IN DRY BEANS

Dried cultivars of bean (*Lupinus*); bean (*Phaseolus*) (includes field bean, kidney bean, lima bean (dry), navy bean, pinto bean, tepary bean); bean (Vigna) (includes adzuki bean, blackeyed pea, catjang, cowpea, crowder pea, moth bean, mung bean, rice bean, southern pea, urd bean); broad bean (dry); chickpea; guar; lablab bean and lentil

#### <u>WEED SUPPRESSION</u> [Weed Suppression section not to be shown on production label] RESTRICTIONS AND LIMITATIONS

- Do not apply more than 1.5 oz. of AX-FLUMIOX per acre during a single application.
- Do not apply more than 1.5 oz. of AX-FLUMIOX per acre during a single growing season.

# Many weather related factors, including high wind, splashing or heavy rains or cool conditions at or near crop emergence, may result in dry bean injury in fields treated with AX-FLUMIOX. On occasion this has resulted in a delay in maturity.

#### TIMING TO DRY BEAN

AX-FLUMIOX may be applied to dry beans within 2 days after planting for the preemergence suppression of the weeds listed in Table 8, Broadleaf Weeds Controlled by Residual Activity of AX-FLUMIOX or Table 8, Weeds Suppressed by Residual Activity of AX-FLUMIOX at 1.5 oz./A. Tank mix AX-FLUMIOX with other labeled herbicides for broad spectrum weed control.

#### TIMING TO WEEDS

AX-FLUMIOX may be applied to dry beans prior to planting or preemergence (after planting). Preemergence application of AX-FLUMIOX must be made within 2 days after planting and prior to dry bean emergence. Application after the dry beans have begun to crack, or are emerged, will result in severe crop injury. To avoid severe crop injury, do not apply to dry beans after beans begin to crack or have emerged.

Preplant incorporation (PPI) applications may result in reduced weed control.

#### ADDITIONAL RESIDUAL GRASS CONTROL

AX-FLUMIOX can be tank mixed with pendimethalin for additional grass control.

#### HARVEST AID

#### **RESTRICTIONS AND LIMITATIONS**

- Do not apply more than 3 oz. of AX-FLUMIOX per acre during a single application.
- Do not apply more than 3 oz. of AX-FLUMIOX per acre during a single growing season.
- Do not harvest within 5 days of application.

Desiccation from AX-FLUMIOX requires the addition of an agronomically approved adjuvant to the spray mixture. Use a methylated seed oil which contains at least 15% emulsifiers and 80% oil at 2% v/v. A spray grade nitrogen source (either ammonium sulfate at 2 to 2.5 lbs./A or a 28 to 32% nitrogen solution at 1 to 2 qts./A) may be added to the spray mixture along with either a crop oil concentrate or methylated seed oil to enhance desiccation. The addition of a nitrogen source does not replace the need for a crop oil concentrate or a methylated seed oil. Tank mixing AX-FLUMIOX with glyphosate or paraquat will increase control of emerged weeds and aid in harvest. Add a burndown tank mix partner for the control of emerged weeds labeled for dry bean in accordance with the most restrictive labeled limitations and precautions.

#### TIMING TO DRY BEANS

Apply when crop is mature and at least 80% of the pods are yellowing and mostly ripe with no more than 40% (bush type beans) or 30% (vine type beans) of the leaves still green in color. Dry beans can be harvested 5 days after application. To ensure thorough coverage use 15 to 30 gallons spray solution per acre. Nozzle selection must meet manufacturer's gallonage and pressure specifications for postemergence application.

#### DIRECTIONS FOR USE IN FIELD CORN

# For Use in the States of Arizona, California and Hawaii Only

#### RESTRICTIONS AND LIMITATIONS

- Use only on no-till or minimum tillage fields where last year's crop residue has not been incorporated into the soil.
- Corn must be planted between 14 and 30 days after application unless the application is made as part of a Fall burndown program.
- Corn can be planted 7 days after an application of 2 oz/A if a minimum of 25% of the soil surface is covered with the residue of the preceding crop and a minimum of 1/4 inch of rainfall has occurred between application and planting.
- Do not apply more than [2 oz] 3 oz of AX-FLUMIOX per acre during a single growing season.
- Do not irrigate between emergence and 2-leaf corn.
- Do not use on popcorn, sweet corn or corn grown for seed.

#### TIMING TO FIELD CORN

- Apply AX-FLUMIOX, at 2 to 3 oz/A, between 7 and 30 days prior to planting field corn, for the preemergence control of the weeds listed in Table 1, Broadleaf Weeds Controlled by Residual Activity of AX-FLUMIOX.
- Apply AX-FLUMIOX at 2 oz/A between 7 and 30 days prior to planting field corn if a minimum of 25% of the soil surface is covered with the residue of the preceding crop and a minimum of 1/4 inch of rainfall has occurred between application and planting.
- Apply AX-FLUMIOX at 3 oz/A between 14 and 30 days prior to planting field corn.

#### Burndown Use Directions - For Preplant Applications in Field Corn

AX-FLUMIOX, applied as part of a burndown program, may be used for residual weed control, as well as to assist in postemergence burndown of many weeds where field corn will be planted directly into the residue of the previous year. See Directions for Use in Fall and Spring Preplant Burndown and Fallow Seedbed Programs in Field Corn, Peanut and Soybean for rates and timing of applications. For control of emerged weeds, AX-FLUMIOX must be applied with an appropriate burndown tank mix partner listed in Table 6. To ensure thorough coverage, use a minimum of 15 gallons of spray solution per acre. Refer to tank mix partner's label for specified application pressure and adjuvant systems.

#### INCREASING SPEED OF GLYPHOSATE BURNDOWN ACTIVITY

AX-FLUMIOX, at 1 oz/A, may be tank mixed with glyphosate (Roundup®) to increase the speed of

burndown activity compared to glyphosate applied alone. Residual weed control will not be provided at rates lower than 2 oz/A; however, suppression of the weeds in Table 2 may occur at AX-FLUMIOX rates as low as 1 oz/A. Applications of AX-FLUMIOX at 1 oz/A must be made a minimum of 14 days prior to planting field corn.

#### TANK MIXES

AX-FLUMIOX may be tank mixed with the herbicides listed in Table 6 for pre-plant burndown applications. Refer to tank mix partner's label for adjuvant specifications.

# Table 6. Tank Mix Partners for Burndown and/or Residual Control of Weeds in Field Corn

TANK MIX PARTNERS <sup>1</sup>	
2,4-D LVE atrazine Basis® dicamba Express® glyphosate Hornet®	metribuzin paraquat Python® Resolve® simazine Weedmaster®

Refer to tank mix product labels for tank mix specifications.

#### TANK MIX RESTRICTIONS

Tank mixes with flufenacet (Axiom or Domain), metolachlor or s-metolachlor (Dual Magnum or Dual II Magnum), dimethenamid or dimethenamid-p (Frontier or Outlook), alachlor (Lasso), or acetochlor (Surpass or Harness) may result in injury to field corn when application is followed by prolonged periods of cool wet weather and must not be used with AX-FLUMIOX, unless supplemental labeling, provided by Axion Ag Products LLC, is followed.

#### DIRECTIONS FOR USE IN FIELD PEAS

#### WEED CONTROL

# RESTRICTIONS AND LIMITATIONS

- Do not apply more than 2 oz of AX-FLUMIOX per acre during a single application
- Do not apply more than 2 oz of AX-FLUMIOX per acre during a single growing season
- [For use in Idaho Montana Oregon and Washington only ]

Many weather related factors including high wind splashing or heavy rains or cool conditions at or near crop emergence may result in pea injury in fields treated with AX-FLUMIOX. On occasion this has resulted in a delay in maturity.

#### TIMING TO FIELD PEAS

AX-FLUMIOX may be applied to field peas within 2 days after planting for the preemergence control of the weeds listed in Table 1 Broadleaf Weeds Controlled by Residual Activity of AX-FLUMIOX or Table 8 Weeds Suppressed by Residual Activity of AX-FLUMIOX. Tank mix AX-FLUMIOX with other labeled herbicides for broad spectrum weed control.

#### TIMING TO WEEDS

AX-FLUMIOX may be applied to field peas prior to planting or preemergence (after planting). Preemergence application of AX-FLUMIOX must be made within 2 days after planting and prior to field pea emergence. To avoid severe crop injury, do not apply to field peas after peas begin to crack or have emerged. Preplant incorporation (PPI) applications may result in reduced weed control.

#### ADDITIONAL RESIDUAL GRASS CONTROL

AX-FLUMIOX can be tank mixed with pendimethal in for additional grass control.

#### HARVEST AID

#### **RESTRICTIONS AND LIMITATIONS**

- Do not apply more than 3 oz of AX-FLUMIOX per acre during a single application
- Do not apply more than 3 oz of AX-FLUMIOX per acre during a single growing season
- Do not harvest within 5 days of application

Desiccation from AX-FLUMIOX requires the addition of an agronomically approved adjuvant to the spray mixture. Use a methylated seed oil which contains at least 15% emulsifiers and 80% oil at 1 qt/A. A spray grade nitrogen source (either ammonium sulfate at 2 to 2.5 lbs/A or a 28 to 32% nitrogen solution at 1 to 2 qts/A) may be added to the spray mixture along with methylated seed oil to enhance desiccation. The addition of a nitrogen source does not replace the need for methylated seed oil. Tank mixing Valor Herbicide with glyphosate will increase control of emerged weeds and aid in harvest.

#### TIMING TO FIELD PEAS

Apply AX-FLUMIOX at 1.5 to 2 oz/A when crop is physiologically mature and a minimum of 80% of the pods are yellow to tan in color and 20% are yellow in color If field peas are treated too early a reduction in seed quality may occur. Do not spray AX-FLUMIOX on any area of the field with a significant amount of plants with green color. Peas can be harvested 5 days after application. To ensure thorough coverage use 15 to 30 gallons of spray solution per acre and select nozzle type using manufacturer's gallonage and pressure specifications for postemergence application.

#### HARVEST AID

#### DIRECTIONS FOR USE IN FLAX

#### **RESTRICTIONS AND LIMITATIONS**

- Do not apply more than 3 oz of AX-FLUMIOX per acre during a single application
- Do not apply more than 3 oz of AX-FLUMIOX per acre during a single growing season
- Do not harvest within 5 days of application

Desiccation from AX-FLUMIOX requires the addition of an agronomically approved adjuvant to the spray mixture. A methylated seed oil which contains at least 15% emulsifiers and 80% oil at 1 qt/A should be used. A spray grade nitrogen source (either ammonium sulfate at 2 to 2.5 lbs/A or a 28 to 32% nitrogen solution at 1 to 2 qts/A) may be added to the spray mixture along with methylated seed oil to enhance desiccation. The addition of a nitrogen source does not replace the need for methylated seed oil.

#### TIMING TO FLAX

Apply AX-FLUMIOX at 1.5 to 2 oz/A when crop is physiologically mature and at least 75% of the bolls are brown in color. Flax can be harvested 5 days after application.

To ensure thorough coverage use 15 to 30 gallons of spray solution per acre and select nozzle type using manufacturer's gallonage and pressure specifications for postemergence application.

#### DIRECTIONS FOR USE IN FRUITING VEGETABLES (INCLUDING OKRA) ROW MIDDLES

Eggplant, Groundcherry (Physalis spp.), Okra, Pepino; Peppers (including Bell Pepper, Chili Pepper, Cooking Pepper, Pimento, Sweet Pepper), Tomatillo and Tomato

#### **RESTRICTIONS AND LIMITATIONS**

- Do not apply more than 4 oz. of AX-FLUMIOX per acre during a single application.
- Do not apply more than 8 oz. of AX-FLUMIOX per acre during a single growing season.
- Grow plants on raised or plastic mulched beds that are higher than the treated row middle.
- [Arizona, California and Hawaii only: For fallowbed application on transplanted peppers and tomato beds follow directions for use in this label.]
- Spray must be directed to the row middle, away from the crop bed and with minimal contact with plastic, including the sides of the bed. If top of mulch beds (where plants are to be transplanted) is contacted, severe injury can occur due to foliage contact with treated plastic. In this scenario, a rainfall event of ½ inch (natural or irrigation) must occur prior to transplanting to reduce AX-FLUMIOX residues.
  - Drift of treated soil particles onto plants may cause contact injury.
- Irrigate treated field after application and prior to transplanting with minimum of 1/4 inch of water if rainfall does not occur between application and transplanting.
- All applications must be made with hooded or shielded equipment.

#### TIMING TO FRUITING VEGETABLES

Apply AX-FLUMIOX at 4 oz per acre as a hooded or shielded application to row middles up to 14 days prior to transplanting or seeding for preemergence control of the weeds listed in Table 7, Weeds Controlled by

Residual Activity of AX-FLUMIOX, as well as to assist in the postemergence control of emerged weeds. A second application of AX-FLUMIOX at 4 oz per acre may be applied up to 21 days after transplanting or emergence if needed. Do not apply during or after bloom.

## TIMING TO WEEDS

AX-FLUMIOX may be used for residual weed control, as well as to assist in postemergence burndown of many annual and perennial weeds in row middles. A registered preemergence grass herbicide may be added for control of additional grassy weeds. For assisting in the control of emerged weeds, tank mix AX-FLUMIOX with paraquat, Aim<sup>™</sup> or other registered burndown herbicide. Do not tank mix with glyphosate after transplanting or crop emergence. Refer to tank mix partner's label for specified rate and application parameters.

#### DIRECTIONS FOR USE IN GARLIC

### **RESTRICTIONS AND LIMITATIONS**

- Do not apply more than 6 oz. of AX-FLUMIOX per acre during a single application.
- Do not apply more than 6 oz. of AX-FLUMIOX per acre during a single growing season.

#### TIMING TO GARLIC

AX-FLUMIOX may be applied, at 6 oz./A, to garlic prior to garlic emergence. Application must be made within 3 days after planting garlic.

#### TIMING TO WEEDS

#### **Preemergence - Preemergence To Weeds**

Apply AX-FLUMIOX to weed free garlic for preemergence control of the weeds listed in Table 10, Weeds Controlled by *Preemergence Application* of AX-FLUMIOX.

## DIRECTIONS FOR USE IN HOPS

## Not For Use in California or New York

#### **RESTRICTIONS AND LIMITATIONS**

- Do not apply more than 6 oz of AX-FLUMIOX per acre during a single application.
- Do not apply more than 6 oz of AX-FLUMIOX per acre during a single growing season.
- Do not allow spray to contact green stem (Unless used for sucker control), foliage, flowers or cones or unacceptable injury may occur.
- Do not apply within 30 days of harvest.
- Do not use with an adjuvant.

AX-FLUMIOX can be used in hops for preemergence weed control as well as sucker control.

#### TIMING TO HOPS FOR SUCKER CONTROL

Apply AX-FLUMIOX at 6 oz/A as a directed application after hops have reached a minimum of 6 feet in height for sucker control. Direct application to the lower 2 feet of the hops.

#### TIMING TO HOPS FOR PREEMERGENCE WEED CONTROL

Apply AX-FLUMIOX at 6 oz/A as a 1 to 1.5 foot band to each side of the hop row, to dormant hops January thru March to ensure time for rain incorporation and activation. If weeds are emerged at the time of application, tank mix AX-FLUMIOX with a labeled burndown herbicide such as paraquat or glyphosate to assist with control of emerged weeds. Do not mow or rake over treated areas, as dust created by mowing may drift onto sensitive crops or vegetation resulting in injury.

#### TIMING TO WEEDS

AX-FLUMIOX applications must be made prior to weed emergence for control of weeds listed in Table 10, Weeds Controlled by Preemergence Application of AX-FLUMIOX.

Read tank mix product label for rates and weeds controlled. Always read and follow label directions for all tank mix products before using. The most restrictive labeling of any tank mix product must be followed. AX-FLUMIOX, when applied according to label use directions, will control the weeds listed in Table 10, Weeds Controlled by Preemergence Application of AX-FLUMIOX. This label makes no claims concerning control of other weed species.

## DIRECTIONS FOR USE IN LENTILS

#### HARVEST AID RESTRICTIONS AND LIMITATIONS

- Do not apply more than 3 oz of AX-FLUMIOX per acre during a single application
- Do not apply more than 3 oz of AX-FLUMIOX per acre during a single growing season
- Do not harvest within 5 days of application

Desiccation from AX-FLUMIOX requires the addition of an agronomically approved adjuvant to the spray mixture. Use a methylated seed oil which contains at least 15% emulsifiers and 80% oil at 1 qt/A. A spray grade nitrogen source (either ammonium sulfate at 2 to 2.5 lbs/A or a 28 to 32% nitrogen solution at 1 to 2 qts/A) may be added to the spray mixture along with methylated seed oil to enhance desiccation. The addition of a nitrogen source does not replace the need for methylated seed oil. Tank mixing AX-FLUMIOX with glyphosate or paraquat will increase control of emerged weeds and aid in harvest.

## TIMING TO LENTILS

Apply AX-FLUMIOX at 1.5 to 2 oz/A when crop is physiologically mature and a minimum of 80% of the pods are yellow to tan in color and 20% are yellow in color If lentils are treated to early a reduction in seed quality may occur. Do not spray AX-FLUMIOX on any area of the field with a significant amount of plants with green color. Lentils can be harvested 5 days after application.

To ensure thorough coverage use 15 to 30 gallons of spray solution per acre and select nozzle type using manufacturer's gallonage and pressure specifications for postemergence application.

#### DIRECTIONS FOR USE IN MINT (Peppermint and Spearmint)

## **RESTRICTIONS AND LIMITATIONS**

- Do not apply more than 4 oz. of AX-FLUMIOX per acre during a single application.
- Do not apply more than 8 oz. of AX-FLUMIOX per acre during a single growing season.
- Do not make a sequential AX-FLUMIOX application within 60 days of the first AX-FLUMIOX application.
- Apply only to dormant mint. Application to non-dormant mint may result in unacceptable crop injury.
- Do not apply within 80 days of harvest.
- Do not apply to row or baby mint, use only on established meadow mint.
- Do not apply to mint that has been weakened by diseases, insects (example mint root borer), nematodes, drought, soil salts, high soil pH, previous pesticides, winter injury or double cutting, as severe injury may occur. Apply only to healthy vigorous mint with undamaged rhizomes.
- Do not apply before November 25 or after March 1.
- Do not apply a Fall application if roots and rhizomes are weak, thin or damaged.
- Do not apply to stands established longer than 3 years.
- Do not apply AX-FLUMIOX on mint in Southern Union County (south of Ladd Canyon) or Baker County in Oregon.

# Many weather related factors, including high wind, splashing or heavy rains or cool conditions at or near mint emergence, may result in mint injury in fields treated with AX-FLUMIOX.

Tank mix with labeled rates of paraquat specified to control emerged weeds and increase crop safety.

#### TIMING TO MINT

As a spray, AX-FLUMIOX may be applied only to established, dormant mint for preemergence control of the weeds listed in Table 7 as well as to assist in the postemergence control of emerged weeds. Application to non-dormant mint or to baby (row) mint (time from planting of mint roots through the first cutting), may result in unacceptable crop injury. As a bulk fertilizer application, AX-FLUMIOX may be applied at least 80 days prior to harvest. Leaves must be dry at the time of applications or severe injury may occur.

#### TIMING TO WEEDS

## **Burndown - Dormant Mint, Postemergence To Weeds**

AX-FLUMIOX may be used for residual weed control, as well as to assist in postemergence burndown of many annual and perennial weeds where established mint is dormant. For control of emerged weeds, tank mix AX-FLUMIOX with paraquat. Refer to paraquat label for specified rate and application parameters. To

ensure thorough coverage, use a minimum of 15 gals. of spray solution per acre. AX-FLUMIOX tank mixes applied to assist in the control of emerged weeds must be applied with a non-ionic surfactant at 0.25% v/v. A spray grade nitrogen source (either ammonium sulfate at 2 to 2.5 lbs./A or 28 to 32% nitrogen solution at 1 to 2 qts./A) may be added to increase herbicidal activity.

## Preemergence - Dormant Mint, Preemergence To Weeds

Apply AX-FLUMIOX to dormant mint for the preemergence control of weeds listed in Table 7. Fall applications of AX-FLUMIOX, followed by a sequential application in the Spring, have resulted in better Summer annual weed control than a single Fall or single Spring application.

Fall application is most effective for Fall germinating weeds such as groundsel. Fields plowed or harrowed after a AX-FLUMIOX application will result in less effective preemergence activity. In furrow irrigated fields, corrugating that is done after a AX-FLUMIOX application will expose untreated soil and break the herbicide barrier resulting in poor weed control.

BROADLEAF WEED SPECIES					
COMMON NAME	SCIENTIFIC NAME	ORGANIC MATTER	SOIL TYPE	AX- FLUMIOX RATE	
Bristly Starbur	Acanthospermum hispidum	Up to 5%	All Soil	4 oz./A	
Carpetweed	Mollugo verticillata		Types		
Chickweeds					
Common	Stellaria media				
Mouseear	Cerastium vulgatum				
Coffee Senna	Cassia occidentalis				
Copperleaf, Hophornbeam	Cassia occidentalis				
Dandelion	Taraxacum officinale				
Dodder (suppression only) <sup>1</sup>	Cuscuta spp.				
Eclipta	Eclipta prostrate				
Evening Primrose, Cutleaf	Oenothera laciniata				
False Chamomile	Tripleurospermum maritima	1			
Fiddleneck, Coast	Amsinckia menziesii				
Field Pennycress	Thlaspi arvense	1			
Fleabane, Hairy	Conyza bonariensis	1			
Flixweed	Descurainia spophia	1			
Florida Beggarweed	Desmodium tortuosum	1			
Florida Pusley	Richardia scabra	1			
Golden Crownbeard	Verbesina encelioides				
Groundsel, Common	Senecio vulgaris	1			
Hairy Indigo	Indigofera hirsuta				
Hemp Sesbania	Sesbania exaltata	1			
Henbit	Lamium amplexicaule				
Jimsonweed	Datura stramonium	1			
Kochia	Kochia scoparia	1			
Lambsquarters, Common	Chenopodium album				
Little Mallow	Malva parviflora				
London Rocket	Sisymbrium irio				
Marestail/Horseweed	Conyza canadensis				
Mayweed/False Chamomile	Matricaria maritima				
Morningglories					
Entireleaf	Ipomoea hederacea var. integriuscula				
lvyleaf	Ipomoea hederacea	1			
Red/Scarlet	Ipomoea coccinea	1			
Smallflower	Jacquemontia tamnifolia	1			
Tall	Ipomoea purpurea	1			
Mustard		1			
Tansy	Descurainia pinnata	1			

Table 7. Weeds Controlled by Residual Activity of AX-FLUMIOX

Tumble	Sisymbrium altissimum	
Wild	Brassica kaber	
Nettle, Burning	Urtica urens	
Nightshades		
Black	Solarium nigrum	
Eastern Black	Solarium ptycanthum	
Hairy	Solanum sarrachoides	
Pigweeds	Solanum sanacholdes	
Palmer Amaranth	Americathus polyori	
	Amaranthus palmeri	
Redroot	Amaranthus retroflexus	
Smooth	Amaranthus hybridus	
Spiny Amaranth	Amaranthus spinosus	
Tumble	Amaranthus albus	
Prickly Lettuce	Lactuca serriola	
(China Lettuce)		
Prickly Sida (Teaweed)	Sida spinosa	
Sowthistle, Prickly	Sonchus asper	
Puncturevine	Tribulus terrestris	
Purslane		
Common	Portulaca oleracea	
Horse	Trianthema portulacastrum	
Radish, Wild	Raphanus raphanistrum	
Ragweed, Common	Ambrosia artemisiifolia	
Redmaids	Calandrinia ciliata var. menziesii	
Russian Thistle	Salsola iberica	
Shepherd's-purse	Capsella bursa-pastoris	
Smartweeds		
Ladysthumb	Polygonum persicaria	
Pennsylvania	Polygonum pensylvanicum	
Smellmelon	Cucumis melo	
Spotted Spurge	Euphorbia maculata	
Spurred Anoda	Anoda cristata	
Tropic Croton	Croton glandulosus	
Velvetleaf	Abutilon theophrasti	
Venice Mallow	Hibiscus trionum	
Waterhemps		
Common	Amaranthus rudis	
Tall	Amaranthus tuberculatus	
White Cockle	Silene latifolia	
Wild Poinsettia		
	Euphorbia heterophylla	
Wormwood, Biennial	Artemisia biennis	
Yellow Rocket	Barbarea vulgaris	

<sup>1</sup> AX-FLUMIOX at 4 oz/A will provide postermergence dodder suppression when applied in combination with Pursuit Herbicide or Raptor Herbicide at labeled rates. The use of Pursuit Herbicide and Raptor Herbicide require the use of a NIS, which will result in burn and stunting of alfalfa. Growers should expect and accept this prior to using this tank mix.

## Table 7. Weeds Controlled by Residual Activity of AX-FLUMIOX (continued)

BROADLEAF WEED SPE	ECIES			
COMMON NAME	SCIENTIFIC NAME	ORGANIC MATTER	SOIL TYPE	AX- FLUMIOX RATE
GRASS WEED SPECIES		Up to 5%	All Soil Types	4 oz./A
Barnyardgrass	Echinochloa crus-galli			
Bluegrass, Annual	Poa annua			
Crabgrass, Large	Digitaria sanguinalis			
Foxtail, Giant	Setaria faberi			
Goosegrass	Eleusine indica			
Lovegrass, California	Eragrostis diffusa			

Panicums		
Fall	Panicum dichotomiflorum	
Texas	Panicum texanum	
Ryegrass, Italian	Lolium multiflorum	
Signalgrass, Broadleaf	Brachiaria platyphylla	

## DIRECTIONS FOR USE IN ONION (DRY BULB) For Use in the States of Michigan, New York and North Dakota Only

## **RESTRICTIONS AND LIMITATIONS**

- Do not apply more than 2 oz. of AX-FLUMIOX per acre during a single application.
- Do not apply more than 3 oz. of AX-FLUMIOX per acre during a single growing season.
- Do not make sequential application within 14 days of the first application.
- Do not apply more than 1 oz. of AX-FLUMIOX per season on soils that contain greater than 90% sand plus gravel.
- Do not apply as part of a tank mix, other than with Prowl® H20, or unacceptable injury may result. Other formulations of pendimethalin must not be tank mixed with AX-FLUMIOX for use in onions.
- Do not apply with any type of adjuvant.
- Do not apply within 45 days of harvest.

# Use of AX-FLUMIOX may result in necrotic spotting of onion leaves that come in contact with the spray.

## [Microrate Application]

Sequential applications of AX-FLUMIOX may be applied to onions (dry bulb), between the 2-leaf and 6-leaf stage, at rates of 0.5 to 1 oz./A, on a 7 day interval.

## TIMING TO ONIONS (dry bulb)

Apply AX-FLUMIOX to transplanted onions (dry bulb) between the 2-leaf and 6-leaf stage and on direct seed onions (dry bulb) between the 3-leaf and 6-leaf stage.

## TIMING TO WEEDS

## Preemergence - Emerged Onions (dry bulb), Preemergence To Weeds

Apply AX-FLUMIOX to weed free onions (dry bulb) for preemergence control of the weeds listed in Table 1, Section A.

BROADLEAF WEED SPECIES					
Common Name	Scientific Name	Organic Matter	Soil Type	AX- FLUMIOX Rate	
Carpetweed	Mollugo verticillata	Up to 5%	All Soil	2oz/A	
Chickweeds			Types		
Common	Stellaria media				
Mouseear	Cerastium vulgatum				
Dandelion	Taraxacum officinale				
Eclipta	Eclipta prostrata				
Eveningprimrose, Cutleaf	Oenothera laciniata				
Florida Pusley	Richardia scabra				
Henbit	Lamium amplexicaule				
Lambsquarters, Common	Chenopodium album				
Little Mallow	Malva parviflora				
Marestail/Horseweed	Conyza canadensis				
Nightshades					
Black	Solarium nigrum				
Eastern Black	Solanum ptycanthum				
Hairy	Solarium sarrachoides				
Pigweeds					
Redroot	Amaranthus retroflexus				
Smooth	Amaranthus hybridus				

## Table A. Broadleaf Weeds Controlled by Residual Activity of AX-FLUMIOX

Spiny Amaranth	Amaranthus spinosus
Tumble	Amaranthus albus
Prickly Sida (Teaweed)	Sida spinosa
Puncturevine	Tribulus terrestris
Purslane, Common	Portulaca oleracea
Radish, Wild	Raphanus raphanistrum
Redmaids	Calandrinia ciliata var. menziessii
Shepherd's-Purse	Capsella bursa-pastoris
Smallflower Morningglory	Jacquemontia tamnifolia
Spotted Spurge	Euphorbia maculata
Venice Mallow	Hibiscus trionum

## DIRECTIONS FOR USE IN PEANUT

## **RESTRICTIONS AND LIMITATIONS**

- Do not apply more than 3 oz. of AX-FLUMIOX per acre during a single growing season.
- Do not apply more than 2 oz/A in the states of North Carolina, Oklahoma, or Virginia where climatic conditions may result in unacceptable injury to peanuts unless supplemental labeling provided by Axion Ag Products LLC is followed.
- Do not irrigate when peanuts are cracking.
- Do not graze treated fields or feed treated hay to livestock

Many weather related factors, including high wind, splashing or heavy rains or cool conditions at or near peanut emergence, may result in peanut injury in fields treated with AX-FLUMIOX. On occasion this has resulted in a delay in maturity or even a slight decrease in yield.

#### WIND MANAGEMENT

In areas where shallow cultivation is used between rows to reduce wind-borne sand damage to peanuts, weed control from AX-FLUMIOX may be reduced.

## TIMING TO PEANUTS

AX-FLUMIOX may be applied to peanuts prior to planting or preemergence (after planting). Preemergence applications of AX-FLUMIOX must be made within 2 days after planting and prior to peanut emergence. Application after the peanuts have begun to crack, or are emerged, will result in severe crop injury. Application must not be made when peanuts have begun to crack. Select AX-FLUMIOX rate from Table 1 according to anticipated weed spectrum.

## TIMING TO WEEDS

## Burndown - Preemergence to Peanuts, Postemergence to Weeds

AX-FLUMIOX, applied as part of a burndown program, may be used for residual weed control, as well as to assist in postemergence burndown of many annual and perennial weeds where peanuts will be planted directly into a stale seedbed, cover crop or in previous crop residues. Apply AX-FLUMIOX before planting, during planting or after planting, but before the crop emerges. For control of emerged weeds, tank mix AX-FLUMIOX with glyphosate. Refer to glyphosate label for specified rate and application pressure. To ensure thorough coverage, use a minimum of 15 gals. of spray solution per acre. AX-FLUMIOX tank mixes applied to assist in the control of emerged weeds must be applied with an adjuvant, such as a non-ionic surfactant at 0.25% v/v or a crop oil concentrate or a methylated seed oil at 1 to 2 pt./A. A spray grade nitrogen source (either ammonium sulfate at 2 to 2.5 lbs./A or 28 to 32% nitrogen solution at

1 to 2 qts./A) may be added to increase herbicidal activity.

Preemergence (conventional tillage) applications of AX-FLUMIOX must be applied prior to weed emergence.

## ADDITIONAL RESIDUAL GRASS CONTROL: SEQUENTIAL

AX-FLUMIOX may be applied sequentially following a preplant incorporated application of trifluralin (states of New Mexico, Oklahoma and Texas only), SONALAN®, DUAL® (metolachlor), pendimethalin or FRONTIER®.

## ADDITIONAL RESIDUAL GRASS CONTROL: TANK MIXED

AX-FLUMIOX can be tank mixed with alachlor, metolachlor or FRONTIER for additional grass and broadleaf weed control. AX-FLUMIOX can also be tank mixed with pendimethalin or SONALAN in states where they are labeled, provided overhead irrigation guidelines on the pendimethalin and/or SONALAN labels are followed.

# PREEMERGENCE APPLICATION IN PEANUTS IN THE STATES OF NORTH CAROLINA, OKLAHOMA, AND VIRGINIA ONLY

AX-FLUMIOX, at 2 oz. per acre, can be applied within 2 days of planting to control common ragweed, tropic croton and entireleaf, ivyleaf and tall/scarlet morningglories.

Cool temperatures near emergence, 2 consecutive nighttime lows in the 50's F, in combination with heavy rainfall may result in severe crop injury. AX-FLUMIOX, at 3 oz./A, must only be used in these states when other alternatives are not available for adequate control of the weeds listed above and the user acknowledges the risks associated with this use rate under the adverse environmental conditions listed above.

## DIRECTIONS FOR USE IN POTATO

Arizona, California, Colorado, Delaware, Florida, Hawaii, Idaho, Maryland, Minnesota, Montana, Nebraska, Nevada, New Jersey, New Mexico, North Carolina, North Dakota, Oregon, South Dakota, Texas, Utah, Virginia, Washington, Washington DC and Wyoming only.

#### **RESTRICTIONS AND LIMITATIONS**

- Do not apply more than 1.5 oz of AX-FLUMIOX per acre during a single application.
- Do not apply more than 1.5 oz of AX-FLUMIOX per acre during a single growing season.
- Do not apply to Rill (Furrow) irrigated potatoes

Many weather related factors, including high wind, splashing or heavy rains or cool conditions at or near potato emergence, may result in potato injury in fields treated with AX-FLUMIOX. On occasion this has resulted in a delay in maturity.

#### TIMING TO POTATOES

AX-FLUMIOX may be applied to potatoes after hilling for the preemergence suppression of the weeds listed in Table 8. Apply AX-FLUMIOX with other labeled herbicides for broad spectrum weed control. A minimum of 2 inches of settled soil must cover the vegetative portion of the potato plant at the time of AX-FLUMIOX application. Application to potatoes with less than 2 inches of soil covering the vegetative portion of the potato may result in crop injury. In areas with historically higher amounts of rainfall during the time of preemergence herbicide applications, such as the Red River Valley, Minnesota and North Dakota, the requirement for 2 inches of settled soil is critical to avoid crop injury. Mechanical incorporation of AX-FLUMIOX will result in decreased weed control and must be avoided. In areas with sprinkler irrigation, incorporate AX-FLUMIOX with 0.5 to 0.75 inches of irrigation, after application and before <u>any</u> sprouts are within 2 inches of the settled soil surface if a rainfall event has not yet occurred.

#### TIMING TO WEEDS

## Preemergence - Soil Covered Potatoes, Preemergence To Weeds

Apply AX-FLUMIOX to soil covered potatoes for the preemergence suppression of the weeds listed in Table 8. Harrowing, cultivation or corrigating after AX-FLUMIOX application will reduce weed control.

Read tank mix product label for rates and weeds controlled. Always read and follow label directions for all tank mix products before using. The most restrictive labeling of any tank mix product must be followed.

COMMON NAME	ON NAME         SCIENTIFIC NAME         ORGANIC MATTER		AX-FLUMIOX RATE
Lambsquarters, Common	Chenopodium album		
Mustard, Wild	Brassica kaber		
Nightshades		Up to 5%	1.5 oz./A
Black	Solarium nigrum	-	
Eastern Black	Solanum ptycanthum		

## Table 8. Weeds Suppressed by Residual Activity of AX-FLUMIOX at 1.5 oz/A

Hairy	iry Solanum sarrachoides	
Pigweeds		
Palmer Amaranth	Amaranthus palmeri	
Redroot	Amaranthus retroflexus	
Smooth	Amaranthus hybridus	
Spiny Amaranth	Amaranthus spinosus	
Tumble	Amaranthus albus	
Prickly Lettuce	Lactuca serriola	
(China Lettuce)		
Radish, Wild	Raphanus raphanistrum	

## DIRECTIONS FOR USE IN SOYBEAN

## **RESTRICTIONS AND LIMITATIONS**

- Do not apply more than 3 oz. of AX-FLUMIOX per acre during a single growing season.
- Do not tank mix AX-FLUMIOX with acetochlor (Warrant®), alachlor (Micro-Tech®), flufenacet (Axiom®, Domain®), metolachlor (Dual® Magnum, Dual II Magnum®, Boundary®) or dimethenamid (Frontier® or Outlook®) within 14 days of planting soybeans, unless soybeans are planted under no-till or minimum tillage conditions on wheat stubble or no-till field corn stubble. Do not irrigate when soybeans are cracking.
- Do not graze treated fields or feed treated hay to livestock

## TIMING TO SOYBEANS

AX-FLUMIOX may be applied to soybeans prior to planting or preemergence (after planting). Preemergence application of AX-FLUMIOX must be made within 3 days after planting and prior to soybean emergence. Application after the soybeans have begun to crack, or are emerged, will result in severe crop injury. Do not apply when soybeans have begun to crack. Select AX-FLUMIOX rate from Table 1 according to anticipated weed spectrum.

## TIMING TO WEEDS

## Burndown - Preemergence to Soybeans, Postemergence to Weeds

AX-FLUMIOX, applied as part of a burndown program, may be used for residual weed control, as well as to assist in postemergence burndown of many annual and perennial weeds where soybeans will be planted directly into a stale seedbed, cover crop or in previous crop residues. For control of emerged weeds, choose the most appropriate tank mix partner from Table 9. Apply AX-FLUMIOX with ground equipment before planting, during planting or within 3 days after planting, **but before the crop emerges**. To ensure thorough coverage, use a minimum of 15 gals. of spray solution per acre. Refer to tank mix partner's label for specified application pressure. All AX-FLUMIOX tank mixes applied to assist in the control of emerged weeds must be applied with crop oil concentrate or methylated seed oil at 1 to 2 pt./A or a non-ionic surfactant at 0.25% v/v.

## INCREASING SPEED OF GLYPHOSATE BURNDOWN ACTIVITY

AX-FLUMIOX, at rates as low as 1 oz./A, may be tank mixed with glyphosate (ROUNDUP®) to increase the speed of burndown activity compared to glyphosate applied alone. Residual weed control will not be provided at rates lower than 2 oz./A; however, suppression of the weeds in Table 2, may occur at AX-FLUMIOX rates as low as 1 oz./A.

## TANK MIXES

AX-FLUMIOX may be tank mixed with the herbicides listed in Table 9 for increased burndown activity, additional residual broadleaf and/or additional grass control. Refer to tank mix partner's label for adjuvant specifications.

## Table 9. Tank Mix Partners for Control of Emerged Weeds in Reduced Tillage Soybeans

TANK MIX PARTNER	TARGET WEEDS <sup>1</sup>
	Marestail
2,4-D LVE	Giant Ragweed
	Dandelion
perequet	Annual Grasses
paraquat	Henbit

glyphosate	General Burndown		
Select Max®	Annual Grasses	Annual Grasses	
	Cocklebur		
SCEPTER® 70 DG	Common Sunflower		
	Marestail		
Weedmaster®	Giant Ragweed		
	Dandelion		

<sup>1</sup> Refer to tank mix product labels for directions for control of emerged weeds present.

## ADDITIONAL RESIDUAL BROADLEAF CONTROL

AX-FLUMIOX can be tank mixed with metribuzin, FIRSTRATE®, LOROX®, PURSUIT PLUS®, PYTHON®, SQUADRON®, SCEPTER or STEEL® for additional broadleaf control.

## ADDITIONAL RESIDUAL GRASS CONTROL

AX-FLUMIOX can be tank mixed with pendimethalin or COMMAND® for additional grass control. Tank mixes with flufenacet (AXIOM or DOMAIN), metolachlor (DUAL products or BOUNDARY), dimethenamid (FRONTIER or OUTLOOK) or alachlor (MICRO-TECH or IntRRo®), may result in severe injury to soybeans when application is followed by prolonged periods of cool wet weather and must not be used with AX-FLUMIOX, unless supplemental labeling, provided by Axion Ag Products LLC, is followed.

## ROUNDUP READY PROGRAM

AX-FLUMIOX may be applied as part of a burndown program or preemergence in conventional tillage programs, at 2 to 3 oz./A to reduce early season weed competition from waterhemp, velvetleaf, nightshade and morningglories as well as other weeds listed in Tables 2 and 3 in ROUNDUP READY programs. A sequential post emergence application of glyphosate will be required to control weeds not controlled by AX-FLUMIOX.

## DIRECTIONS FOR USE IN STRAWBERRY

## **RESTRICTIONS AND LIMITATIONS:**

- Do not apply more than 3 oz. of AX-FLUMIOX per acre per application.
- Do not apply more than 3 oz. of AX-FLUMIOX per acre during a single growing season.
- AX-FLUMIOX, at 3 oz. per acre, can be applied to the soil a minimum of 30 days prior to transplanting strawberries provided the strawberries will be transplanted through a plastic mulch.
- AX-FLUMIOX at 3 oz. per acre can be applied to dormant (established or newly planted) strawberries for the preemergence control of the weeds listed in Table 1, Broadleaf Weeds Controlled by Residual Activity of AX-FLUMIOX.
- AX-FLUMIOX, at 3 oz. per acre, can be applied in strawberry row middles with a shielded or hooded sprayer for the preemergence control of the weeds listed in Table 1, Broadleaf Weeds Controlled by Residual Activity of AX-FLUMIOX

Application method	Minimum Time From Application to Harvest (PHI)	Use Rate per Acre Per Application (oz)	Use Rate Per Acre Per Year (oz)	Special Use Instructions
Pre-transplant	Not applicable	3	3	Apply a minimum of 30 days prior to transplanting and prior to plastic mulch being laid. Apply as part of a tank mix to control emerged weeds.
Preemergence to dormant strawberries	Not applicable	3	3	Crop oil concentrate, at 1% v/v, or non-ionic surfactant, at 0.25% v/v, may be added to help control emerged broadleaf weeds.
Hooded or shielded sprayer application to row middles	Do not apply after fruit set	3	3	Apply only to row middles - do not apply over strawberries. Apply prior to weed emergence. Crop spotting may occur if an adjuvant is added. Application after fruit set may

		result in spotting of fruit and should be avoided.
		Do not allow spray drift to come in
		contact with fruit or foliage

# Table 10. Weeds Controlled by Preemergence Application of AX-FLUMIOX BROADLEAF WEED SPECIES

COMMON NAME	SCIENTIFIC NAME	ORGANIC MATTER	SOIL TYPE		AX- FLUMIOX RATE
Bristly Starbur	Acanthospermum hispidum	Up to 10% <sup>1</sup>	All	Soil	Asparagus,
Carpetweed	Mollugo verticillata		Types <sup>2</sup>	••••	Garlic, Hops
Chickweeds			. , , , , , , , , , , , , , , , , , , ,		6 oz./A
Common	Stellaria media				Sugarcane
Mouseear	Cerastium vulgatum				6 to 8 oz./A
Coffee Senna	Cassia occidentalis				
Dandelion	Taraxacum officinale				Bushberries,
Eclipta	Eclipta prostrata				Grapes, Nut
Eveningprimrose, Cutleaf	Oenothera laciniata				Trees
False Chamomile	Tripleurospermum maritima				(Including
Filaree					Pistachio),
Redstem	Erodium cicutarium				Pome Fruit,
Whitestem	Erodium moschatum				Stone Fruit,
Fiddleneck, Coast	Amsinckia menziesii				and Non-
Fleabane, Hairy	Conyza bonariensis				Bearing Fruit
Field Pennycress	Thlaspi arvense				Trees
Tield Territycress					6 to12oz./A2
Florida Beggarweed	Desmodium tortuosum				
Florida Pusley	Richardia scabra				
Golden Crownbeard	Verbesina encelioides				
Golden Crownbeard Groundsel, Common					
	Senecio vulgaris Indigofera hirsuta				
Hairy Indigo Hemp Sesbania	Sesbania exaltata				To Maintain
					Bare Ground
Henbit	Lamium amplexicaule				on Non-Crop
Jimsonweed	Datura stramonium				Areas of
Kochia	Kochia scoparia				Farms,
Lambsquarters, Common	Chenopodium album				Orchards &
Mallow					Vineyards
Common	Malva neglecta				6 to12oz/.A.
(Cheeseweed)					0 10 1202/ 1
Little	Malva parviflora				
Horseweed/Marestail	Conyza canadensis				
Mayweed/False Chamomile	Matricaria maritima				
Morningglories					
Entireleaf	Ipomoea hederacea var. integriuscula				
lvyleaf	Ipomoea hederacea				
Red/Scarlet	Ipomoea coccinea				
Smallflower	Jacquemontia tamnifolia				
Tall	Ipomoea purpurea				
Mustards					
London Rocket	Sisymbrium irio				
Tansey	Desurainia pinnata				
Tumble	Sisymbrium altissimum				
Wild	Brassica kaber				
Nettle, Burning	Urtica urens				
Nightshades			1		
Black	Solarium nigrum				
Eastern Black	Solarium ptycanthum				
Hairy	Solanum sarrachoides				
Pigweeds					

	-
Palmer Amaranth	Amaranthus palmeri
Redroot	Amaranthus retroflexus
Smooth	Amaranthus hybridus
Spiny Amaranth	Amaranthus spinosus
Tumble	Amaranthus albus
Prickly Lettuce	Lactuca serriola
(China Lettuce)	
Prickly Sida (Teaweed)	Sida spinosa
Puncturevine	Tribulus terrestris
Purslane	
Common	Portulaca oleracea
Horse	Trianthema portulacastrum
Radish, Wild	Raphanus raphanistrum
Ragweed, Common	Ambrosia artemisiifolia
Redmaids	Calandrinia ciliata var. menziessi.
Redweed	Melochia corchorifolia
Shepherd's-purse	Capsella bursa-pastoris
Smellmelon	Cucumis melo
Sowthistle, Annual <sup>3</sup>	Sonchus oleraceus
Spotted Spurge	Euphorbia maculate
Spurred Anoda	Anoda cristata
Thistle, Russian	Salsola iberica
Tropic Croton	Croton glandulosus
Venice Mallow	Hibiscus trionum
Waterhemps	
Common	Amaranthus rudis
Tall	Amaranthus tuberculatus
Wild Poinsettia	Euphorbia heterophylla
White Cockle	Silene latifolia
Wormwood, Biennial	Artemisia biennis
Yellow Rocket	Barbarea vulgaris
	1

<sup>1</sup> AX-FLUMIOX can be used on soils with greater than 10% organic matter; however, length of residual control may be shorter than on soils with lower organic matter content. <sup>2</sup> Use a maximum AX-FLUMIOX rate of 6 oz./A per application on any soil that has a sand plus gravel content over 80% if bushes, trees or vines are under 3 years of age. <sup>3</sup> Except CA.

Table 10. Weeds Controlled by Preemergence Application of AX-FLUMIOX (continued)
BROADLEAF WEED SPECIES

BROADLEAF WEED SPECIES						
COMMON NAME	SCIENTIFIC NAME	ORGANIC MATTER	SOIL TYPE	AX-FLUMIOX RATE		
<b>GRASS WEED SPECIES</b>		Up to 10% <sup>1</sup>	All Soil	Asparagus,		
Barnyardgrass	Echinochloa crus-galli		Types <sup>2</sup>	Garlic, Hops		
Bluegrass, Annual	Poa annua			6 oz./A		
Crabgrass				Sugarcane		
Large	Digitaria sanquinalis			6 to 8 oz./A		
Smooth	Digitaria ischaemum			Bushberries,		
Foxtails				Grapes, Nut		
Bristly	Setaria verticillata			Trees		
Giant	Setaria faberi			(including		
Green	Setaria viridis			Pistachio),		
Yellow	Setaria glauca			Pome Fruit, Stone Fruit and		
Goosegrass	Eleusine indica			Non-Bearing		
Guineagrass	Panicum maximum			Fruit Trees		
Johnsongrass, Seedling	Sorghum halepense			6to12oz/A <sup>2</sup>		
Lovegrass, California	Eragrostis diffusa			To Maintain		
Panicum				Bare Ground		
Fall	Panicum dichotomiflorum			Daile Bround		

Texas	Panicum texaum	on Non-Crop
Ryegrass, Italian	Lolium multiflorum	Areas of
Signalgrass, Broadleaf	Brachiaria platyphylla	Farms,
		Orchards &
		Vineyards
		6 to12oz./A

1 AX-FLUMIOX can be used on soils with greater than 10%; however, length residual control may be shorter than on soils with lower organic matter content.

2 Use a maximum AX-FLUMIOX rate of 6 oz./A per application on soils with lower any soil that has a sand plus gravel content over 80% if used on bushes, trees or vines are under 3 years of age.

## DIRECTIONS FOR USE IN SUGARCANE

## **RESTRICTIONS AND LIMITATIONS**

- Do not apply more than 8 oz. of AX-FLUMIOX per acre per application.
- Do not make a sequential application within 14 days of the first application.
- Do not apply more than 12 oz. of AX-FLUMIOX per acre during a single growing season.
- Do not apply within 90 days of harvest.

## TIMING TO SUGARCANE

AX-FLUMIOX may be applied from 2 weeks prior to planting to before the sugarcane emerges, post directed or at layby. Select the proper AX-FLUMIOX rate from Table 10 according to anticipated weed spectrum and soil organic matter content for preemergence applications. Select AX-FLUMIOX rate from Table 11 according to emerged weed spectrum and weed heights for post-directed and layby applications.

## TIMING TO WEEDS

## Burndown - Preemergence to Sugarcane, Postemergence to Weeds

AX-FLUMIOX may be used for preemergence control, and to assist in postemergence burndown, of many annual broadleaf weeds in sugarcane. For control of emerged weeds, choose the most appropriate tank mix partner from Table 12. Apply AX-FLUMIOX **before the crop emerges**. To ensure thorough coverage, use a minimum of 15 gals. of spray solution per acre. All AX-FLUMIOX tank mixes applied to assist in the control of emerged weeds must be applied with crop oil concentrate or methylated seed oil at 1 qt./A or a non-ionic surfactant at 0.25% v/v. Some tank mix products, such as ROUNDUP Original Max (glyphosate), may be formulated with a suitable adjuvant and do not require additional adjuvant.

## Preemergence - Preemergence to Sugarcane, Preemergence to Weeds

AX-FLUMIOX may be used for preemergence control of many annual broadleaf and grassy weeds in sugarcane. Select rate based on anticipated weed spectrum and soil organic matter content from Table 10. Apply AX-FLUMIOX **before the crop emerges.** 

## Post-Directed - Postemergence to Sugarcane, Postemergence to Weeds

Post-directed applications must only be made to upright sugarcane varieties after the sugarcane has exceeded 24 inches in height and has begun to joint. Do not make post-directed applications to "PINEAPPLE" varieties or to upright varieties that have not exceeded 24 inches in height and have not begun to joint, may result in unacceptable crop injury. To ensure thorough coverage, use a minimum of 15 gals. of spray solution per acre. Post-directed applications of AX-FLUMIOX must include a crop oil concentrate or methylated seed oil at 1 qt./A or a non-ionic surfactant at 0.25% v/v. Select the proper AX-FLUMIOX rate based on weed spectrum and weed height from Table 11.

## Layby - Postemergence to Sugarcane, Postemergence to Weeds

Layby applications can be made to upright and "PINEAPPLE" varieties after the sugarcane has exceeded 30 inches in height and the spray solution will not contact foliage above 6 inches from the base of the sugarcane. To ensure thorough coverage, use a minimum of 15 gals. of spray solution per acre. Layby applications of AX-FLUMIOX must be applied with crop oil concentrate or methylated seed oil at 1 qt./A or a non-ionic surfactant at 0.25% v/v. Select the proper AX-FLUMIOX rate based on weed spectrum and weed height from Table 11.

BROADLEAF WEED SPECIES			WEED HEIGHT (inches)	
COMMON NAME	SCIENTIFIC NAME	3 oz./A	4 oz./A	
Bindweed, Field <sup>1</sup>	Convolvulus arvensis	4	8	
Carpetweed	Mollugo verticillata	4	4	
Cocklebur, Common	Xanthium strumarium	4	4	
Florida Beggarweed	Desmodium tortuosum	2	2	
Hemp Sesbania	Sesbania exaltata	6	8	
Jimsonweed	Datura stramonium	4	4	
Lambsquarters, Common	Chenopodium album	4	4	
Morningglories				
Entireleaf	Ipomoea hederacea \ar. integriuscula	-	4	
lvyleaf	Ipomoea hederacea	4	4	
Pitted	, Ipomoea lacunosa	4	6	
Red	Ipomoea coccinea	-	4	
Tall	Ipomoea purpurea	2	4	
Mustard, Wild	Brassica kaber	6	6	
Pigweeds				
Palmer Amaranth	Amaranthus palmeri	4	6	
Redroot	Amaranthus retroflexus	4	6	
Smooth	Amaranthus hybridus	4	6	
Plaintain, Broadleaf	Plantago major	6	6	
Prickly Sida	Sida spinosa	4	6	
Purslanes	,			
Common	Portulaca oleracea	2	4	
Rock	Calandrinia spp.	-	2	
Ragweeds				
Common	Ambrosia artemisiifolia	2	2	
Giant	Ambrosia trifida	4	4	
Rice Flatsedge	Cyperus iria	2	4	
Sicklepod	Senna obtusifolia	4	4	
Smartweeds				
Ladysthumb	Polygonum persicaria	4	4	
Pale	Polygonum lapathifolium	4	4	
Pennsylvania	Polygonum pensylvanicum	4	4	
Spotted Spurge	Euphorbia maculata	4	4	
Velvetleaf	Abutilon theophrasti	4	6	
Venice Mallow	Hibiscus trionum	2	2	
Waterhemps		1		
Common	Amaranthus rudis	2	2	
Tall	Amaranthus tuberculatus	2	2	

Table 11. Broadleaf Weeds Controlled by Post-Directed or Layby Application of AX-FLUMIOX in Sugarcane

<sup>1</sup> AX-FLUMIOX tank, mixes will only control the above ground portion of field bindweed. Repeated applications will be needed to control regrowth.

## TANK MIXES

AX-FLUMIOX may be tank mixed with the herbicides listed in Table 12 for additional weed control in burndown, preemergence, post-directed and layby applications. Refer to tank mix partner's label for adjuvant specifications.

Table 12. Tank mixes with AX-FLUMIOX for Post-directed or Layby Use in Sugarcane

TANK MIX PARTNER <sup>1</sup>	TARGET WEEDS	BURNDOWN	POSTDIRECTED <sup>2</sup>	LAYBY
2,4-D amine	Annual and Perennial Broadleaf Weeds	Х		
atrazine	Pigweeds Cocklebur	Х	х	Х

Asulox® <sup>3</sup>	Annual Grasses		Х	Х
Evik® <sup>4</sup>	Annual Grasses		Х	Х
glyphosate <sup>5</sup>	Annual and Perennial Weeds	X		X
metribuzin <sup>6</sup>	Broadleaf Panicum Goosegrass		Х	X
Sempra®	Purple Nutsedge Yellow Nutsedge	X	X	X
Weedmaster®	Annual and Perennial Broadleaf Weeds	X		

1 Refer to tank mix product labels for directions for control of emerged weeds present not listed in Table 11.

2 Post-directed applications must only be made to upright sugarcane varieties after the sugarcane has exceeded 24 inches in height. Do not make post-directed applications to "PINEAPPLE" varieties. Post-directed applications to "PINEAPPLE" varieties or to upright varieties that have not exceeded 24 inches in height may result in unacceptable crop injury.

3 Apply to sugarcane at least 24 inches tall.

4 Apply before weeds are greater than 6 inches tall.

5 Glyphosate applications must be made with a hooded sprayer. Sugarcane must be at least 3 ft. tall. Contact with the sugarcane foliage by either the spray mixture or the treated weed foliage will result in sugarcane injury.

6 Refer to metribuzin label for restrictions based on soil type.

## ADDITIONAL PREEMERGENCE BROADLEAF CONTROL

AX-FLUMIOX can be tank mixed with atrazine or diuron for additional preemergence broadleaf control.

#### ADDITIONAL PREEMERGENCE GRASS CONTROL

AX-FLUMIOX can be tank mixed with PROWL (or other pendimethalin products) for additional preemergence grass control provided sugarcane has not emerged.

## DIRECTIONS FOR USE IN SUNFLOWER AND SAFFLOWER

#### HARVEST AID RESTRICTIONS AND LIMITATIONS

- Do not apply more than 3 oz of AX-FLUMIOX per acre during a single application
- Do not apply more than 3 oz of AX-FLUMIOX per acre during a single growing season
- Do not harvest within 5 days of application

Desiccation from AX-FLUMIOX requires the addition of an agronomically approved adjuvant to the spray mixture. Use a methylated seed oil which contains at least 15% emulsifiers and 80% oil at 1 qt/A. A spray grade nitrogen source (either ammonium sulfate at 2 to 2.5 lbs/A or a 28 to 32% nitrogen solution at 1 to 2 qts/A) may be added to the spray mixture along with methylated seed oil to enhance desiccation. The addition of a nitrogen source does not replace the need for methylated seed oil. Tank mixing AX-FLUMIOX with glyphosate or paraquat will increas control of emerged weeds and aid in harvest for sunflowers. Tank mixing AX-FLUMIOX with glyphosate will increase control of emerged weeds and aid in harvest for safflower.

#### TIMING TO SUNFLOWER AND SAFFLOWER

Apply AX-FLUMIOX at 1 5 to 2 oz/A when crop is mature (when seed is 35% moisture or less). For many varieties this is when the backs of the heads are turning yellow and the bracts are turning brown Sunflower and safflower can be harvested 5 days after application.

To ensure thorough coverage use 1.5 to 30 gallons of spray solution per acre and select nozzle type using Manufacturer's gallonage and pressure specifications for postemergence application.

## DIRECTIONS FOR USE IN SWEET POTATO

# For Use in the States of Arizona, California and Hawaii Only RESTRICTIONS AND LIMITATIONS

- Do not apply more than 3 oz. of AX-FLUMIOX per acre during a single growing season.
- Do not apply postemergence to sweet potatoes.
- Do not use greenhouse grown transplants.
- Do not use transplants harvested more that 2 days prior to transplanting.

- Do not use on any sweet potato variety other than "BEAUREGARD", unless user has tested AX-FLUMIOX on other variety and has found crop tolerance to be acceptable.
- Do not apply as a part of any tank mix, except with labeled rates of COMMAND, if tank mix is applied prior to transplanting.

## TIMING TO SWEET POTATOES

AX-FLUMIOX must be applied prior to transplanting sweet potatoes.

#### TIMING TO WEEDS Preemergence To Weeds

Apply AX-FLUMIOX to soil prior to transplanting sweet potato slips for the preemergence control of the weeds listed in Table 1.

#### DIRECTIONS FOR USE IN WHEAT

For use in the states of DE ID KY MD MN MT NC ND NJ OR SC SD TN VA and WA Only **RESTRICTIONS AND LIMITATIONS** 

- Do not apply more than 2 oz of AX-FLUMIOX per acre during a single application
- Do not apply more than 2 oz of AX-FLUMIOX per acre during a single growing season

## PRE PLANT APPLICATIONS. PRE EMERGENCE WEED CONTROL

#### **RESTRICTIONS AND LIMITATIONS**

- For pre plant weed control use only on no till or minimum tillage fields where the previous year's crop residue has not been incorporated into the soil
- [Plant wheat no sooner than 7 days after AX-FLUMIOX application in the states of DE ID KY MD MN MT NC ND NJ OR SC SD TN VA or WA]
- [Plant wheat no sooner than 14 days after AX-FLUMIOX application in the states of DE ID KY MD MN MT NC ND NJ OR SC SD TN VA or WA]
- [Do not use on Durum wheat ]
- Do not irrigate between emergence and spike
- Wheat must be planted a minimum of 1 deep
- Do not graze until wheat has reached 5 inches in height

## Burndown Use Directions

AX-FLUMIOX applied as part of a burndown program at 2oz/A may be used for residual weed control as well as to assist in postemergence burndown of many weeds where wheat will be planted directly into the residue of the previous crop. See Directions for Use in Fall Burndown Programs in Fields to be Planted to Barley Field Pea Flax Lentil Safflower Sunflower and Wheat for rates and timing of applications. For control of emerged weeds. AX-FLUMIOX must be applied with an appropriate burndown tank mix partner. To ensure thorough coverage, use a minimum of 15 gallons of spray solution per acre. Refer to tank mix partners label for specified application pressure and adjuvant systems.

#### [POST PLANT. PRE EMERGENCE WEED CONTROL] RESTRICTIONS AND LIMITATIONS

• For post plant pre emergence weed control use only on no till or minimum tillage fields where the previous crop residue has not been incorporated into the soil

- Apply AX-FLUMIOX up to 2 days after planting
- [Do not use on Durum wheat ]
- Do not irrigate between emergence and spike
- Wheat must be planted a minimum of 1 deep
- · Do not graze until wheat has reached 5 inches in height

#### **Use Directions**

AX-FLUMIOX applied at 2oz/A may be used for residual weed control where wheat has been planted directly into the residue of the previous year. Application must be made no later than 2 days after planting ]

#### HARVEST AID

#### **RESTRICTIONS AND LIMITATIONS**

• Do not harvest within 10 days of application

## **Use Directions**

AX-FLUMIOX applied at 2 oz/A for desiccation requires the addition of an agronomically approved adjuvant to the spray mixture. Use a methylated seed oil which contains at least 15% emulsifiers and 80% oil at 1 qt/A. A spray grade nitrogen source (either ammonium sulfate at 2 to 2.5 lbs/A or a 28 to 32% nitrogen solution at 1 to 2 qts/A) may be added to the spray mixture along with methylated seed oil to enhance desiccation. The addition of a nitrogen source does not replace the need for methylated seed oil. Tank mixing AX-FLUMIOX with glyphosate will increase control of emerged weeds and aid in harvest.

To ensure thorough coverage use a minimum of 10 gallons spray solution per acre by ground application and a minimum of 5 gallons per acre by aerial application. Nozzle selection must meet manufacturer's gallonage and pressure specifications for postemergence application.

## TIMING TO WHEAT

Apply AX-FLUMIOX at 1.5 to 2 oz/A after wheat reaches the hard dough stage and gram has no more than 30% moisture. Wheat can be harvested 10 days after application. Axion Ag Products LLC recommends tank mixing with glyphosate.

#### DIRECTIONS FOR USE IN BUSHBERRIES, GRAPE, NUT TREES (INCLUDING PISTACHIO), OLIVE, POME FRUIT, POMEGRANATE, STONE FRUIT AND NON-BEARING FRUIT TREES

#### **RESTRICTIONS AND LIMITATIONS**

- Do not apply more than 12 oz. of AX-FLUMIOX per acre during a single application.
- Do not apply more than 24 oz. of AX-FLUMIOX per acre during a 12 month period, except Bushberries; for Bushberries do not apply more than 12 oz. of AX-FLUMIOX per acre during a 12 month period.
- Do not make a sequential application within 30 days of the first application, except nut trees, do not make a sequential application within 60 days of the first application.
- Use a maximum AX-FLUMIOX rate of 6 oz./A per application on any soil that has a sand plus gravel content over 80% if bushes, trees or vines are less than 3 years of age. (Two applications of 6 oz./A in a 12 month period can still be made as long as there have been 60 days between applications).
- Do not apply to farm alleys or roads where traffic may result in treated dust settling onto crops or other desirable vegetation.
- Do not apply within 300 yards of non-dormant pears.
- Raise mower height during all mowing to reduce dust. Dust created by mowing can drift onto desirable vegetation resulting in injury.
- Do not apply to powdery soils or soils that are susceptible to wind displacement unless irrigation can be applied immediately after application.
- [Do not mow treated areas between bud break and final harvest. Dust created by mowing may drift onto desirable vegetation resulting in injury.]
- Follow the most restrictive label limitations and precautions of the tank mix product(s) being used.
- Avoid direct or indirect spray contact to foliage and green bark (non-barked trunk and non-barked vines with the exception of undesirable suckers).

For bushberries, grape, nut trees (including pistachio), olive, pomegranate and non-bearing fruit trees, AX-FLUMIOX must be applied as a uniform broadcast application to the orchard or vineyard floor or as a uniform band directed at the base of the bush, trunk or vine. For pome fruit and stone fruit, AX-FLUMIOX can only be applied as a uniform band directed at the base of the trunk prior to "pink bud" in apple and "bud break" in stone fruit and pear. The preferred application timing for AX-FLUMIOX is in the fall to maximize the potential for rainfall to activate and set the herbicide. Do not apply over the top of crop or allow spray to come in contact with crop as a result of application or drift.

## **Preemergence Application**

Apply 6 to 12 oz. (0.188 to 0.38 lb. ai/A) of AX-FLUMIOX per broadcast acre as a preemergence application. Make preemergence (to weed emergence) applications of AX-FLUMIOX to a weed-free soil surface. Preemergence applications of AX-FLUMIOX must be completed prior to weed emergence. Moisture is necessary to activate AX-FLUMIOX on soil for residual weed control. Dry weather following application of AX-FLUMIOX may reduce effectiveness. However, when adequate moisture is received after dry conditions, AX-FLUMIOX will control susceptible germinating weeds.

## **Postemergence Application**

Apply 6 to 12 oz (0.188 to 0.38 lb ai/A) of AX-FLUMIOX per broadcast acre plus an adjuvant (0.25% v/v nonionic surfactant or 1 qt/A crop oil concentrate). The addition of an adjuvant enhances AX-FLUMIOX activity on emerged weeds. Thorough spray coverage is necessary to maximize the postemergence activity of AX-FLUMIOX.

Refer to Table 10 for weeds controlled by the residual activity of AX-FLUMIOX. Tank mix AX-FLUMIOX with a labeled burndown herbicide for control of the emerged weeds listed in Table 13. Refer to tank mix partner's label for additional weed species and increased weed heights claimed. Refer to tank mix partner's label for additional restrictions, including minimum carrier volume and crops in which tank mix partner may be used. Burndown tank mix partners include glyphosate, paraquat, 2,4-D and RELY®. Do not tank mix with glyphosate or 2,4- D containing products during the period after bloom through final harvest to ensure crop safety from drift.

Residual weed control will be reduced if vegetation prevents the AX-FLUMIOX from reaching the soil surface. If vegetation is heavy use a burndown herbicide with AX-FLUMIOX and make a sequential AX-FLUMIOX application prior to the emergence of new weeds.

#### **Carrier Volume and Spray Pressure**

To ensure thorough coverage in burndown applications, use a minimum of 15 gallons of spray solution per acre. Use higher gallonage if dense vegetation or heavy crop residue is present.

Nozzle selection must meet manufacturer's gallonage and pressure specifications.

#### **Banded Application**

Rates listed in Table 13 refer to a broadcast application covering the entire acre. When making a banded application, the rate must be reduced according to the following formula:

Amount Needed per Acre for	=	Band Width in inches	Х	Rate per Broadcast	
Banded Application		Row Width in inches		Acre	

## **USE DIRECTIONS FOR BUSHBERRIES**

Bushberries: Aronia Berry, Black Currant, Blueberry (Highbush, Rabbit-eye and Lowbush), Buffalo Currant, Chilean Guava, Cranberry (Highbush), Elderberry, European Barberry, Gooseberry, Honeysuckle (edible), Huckleberry, Jostaberry, Juneberry, Lingonberry, Native Currant, Red Currant, Salal and Sea Buckthorn

• Do not use in the states of Idaho, Oregon or Washington except west of the Cascade Mountains in the following counties:

**Oregon**: Benton, Clackamas, Clatsop, Columbia, Coos, Curry, Douglas, Jackson, Josephine, Lane, Lincoln, Linn, Marion, Multnomah, Polk, Tillamook, Umatilla, Yamhill and Washington

**Washington**: Benton, Clallam, Clark, Cowlitz, Franklin, Grant, Grays Harbor, King, Jefferson, Kitsap, Lewis, Pacific, Pierce, Skagit, Snohomish, Thurston, Wahkiakum, Walla Walla and Whatcom

- Do not apply to Bushberries established less than 2 years unless they are protected from spray contact by nonporous wrap, grow tubes or waxed containers.
- Do not apply within 7 days of harvest.

## USE DIRECTIONS FOR GRAPES

- Do not apply within 60 days of harvest.
- Do not apply to grapes established less than 2 years unless they are trellised at least 3 ft. from the soil surface or are protected from spray contact by non-porous wrap, grow tubes or waxed containers.
- Do not apply to grapes that are not trellised or staked unless they are free standing.
- Avoid direct or indirect spray contact to foliage and green bark (non-barked vines, with the exception
  of undesirable suckers).
- New plantings of "own-rooted varieties", such as Concord, must be planted so that all roots are a minimum 8 inches below the soil surface to be treated. In some situations, this may require hilling soil around newly planted vines so that the settled depth of the hill will be 4 to 5 inches above the vineyard floor.

## Juice, Raisin and Wine Grapes

 Do not apply during the period after bud break through final harvest, unless using shielded application equipment and applicator can ensure spray drift will not come in contact with crop fruit or foliage. Shielded applications during this time period must not be made with glyphosate or products containing glyphosate.

## **Table Grapes**

- AX-FLUMIOX may be applied during the period following final harvest up to bud break.
- Do not apply after bud break.

# USE DIRECTIONS FOR NUT TREES (INCLUDING PISTACHIO), OLIVE, POME FRUIT, POMEGRANATE, AND STONE FRUIT

Nut Trees: Almond, Beechnut, Betelnut, Black Walnut, Brazil Nut, Butternut, Cashew, Chestnut, Chinquapin, Coconut, English Walnut, Filbert (Hazelnut), Ginkgo, Heartnut, Hickory Nut, Macadamia Nut, Oak, Pecan, Pili Nut, Pine Nut, Pistachio and Tropical Almond.

Pome Fruit: Apple, Crabapple, Loquat, Mayhaw, Pear, Pear (oriental) and Quince.

Stone Fruit: Apricot, Cherries (Sweet and Tart), Nectarine, Peach, Plum (Chickasaw, Damson, Japanese), Plumcot and Prune

- **California only**: For almonds and stone fruit in the counties of Merced, San Joaquin and Stanislaus, follow Directions for use in this label.
- For pome fruit and stone fruit, AX-FLUMIOX can only be applied as a uniform band directed at the base of the trunk prior to silver tip in apples and bud break in stone fruit.
- Do not apply to pears in the states of Oregon or Washington.
- For pome fruit and stone fruit do not apply to row middles (area between berms)
- For nut trees (including Pistachio), olive, pomegranate apply after bud break through final harvest using shielded application equipment if the applicator can ensure the spray drift will not come into contact with non-target vegetation, crop fruit and/or foliage. Shielded application equipment is not required if the following application parameters are followed:
  - Application pressure (at boom) < 30 PSI.
  - Application speed < 5 MPH.
  - Applicator can ensure the spray drift will not come into contact with non-target vegetation, crop fruit and/or foliage.
- Do not apply within 60 days prior to harvest.
- Do not apply to trees established less than one year, unless protected from spray contact by nonporous wraps, grow tubes, paint or waxed containers.
- Do not use in the states of Oregon or Washington except in the following counties unless the additional restrictions listed below are followed:
- Oregon: Benton, Clackamas, Clatsop, Columbia, Coos, Curry, Douglas, Jackson, Josephine, Lane, Lincoln, Linn, Marion, Morrow, Multnomah, Polk, Tillamook, Umatilla, Yamhill and Washington Washington: Clallam, Cowlitz, Grays Harbor, King, Jefferson, Kitsap, Lewis, Pacific, Pierce, Skagit, Snohomish, Thurston, Wahkiakum and Whatcom
  - For apples east of the Cascade Mountains in Washington (counties not listed above), follow the restrictions above plus:
    - Apply between final harvest and January 1.
    - Apply only to apple blocks with an established (2 years or older) permanent cover crop that covers a minimum of 60% of the surface area in the block.
    - Application must be incorporated with a minimum of one half inch of water within 48 hours after application.
    - Do not apply to powdery soils or soils susceptible to wind displacement.
    - Apply only to orchard berms.
    - Do not mow the treated berm areas of the orchard.

## USE DIRECTIONS FOR NON-BEARING FRUIT TREES

Non-Bearing Avocado, Fig, Grapefruit, Lemon, Olive, Orange, Pomegranate and Tangerine

- Do not apply more than 12 oz of AX-FLUMIOX per acre during a single application.
- Do not apply more than 24 oz of AX-FLUMIOX per acre during a 12 month period.

- Do not harvest fruit from treated trees within one year of application.
- Do not apply to trees established less than one year, unless protected from spray contact by nonporous wraps, grow tubes or waxed containers.
- Do not apply during the period after flowering through leaf drop, unless using shielded application equipment and the applicator can ensure spray drift will not come in contact with the crop foliage.

	SCIENTIFIC NAME	WEED HEIGHT/LENGTH (inches)	RATE	
Bindweed, Field <sup>1</sup>	Convolvulus arvensis	8	6 to12 oz./A	
Carpetweed	Mollugo verticillata	4		
Chickweeds				
Common	Stellaria media	4		
Mouseear	Cerastium vulgatum	4		
Cocklebur, Common	Xanthium strumarium	4		
Eveningprimrose, Cutleaf <sup>2</sup>	Oenothera laciniata	12		
Filaree				
Broad leaf	Erodium botiys	4		
Redstem	Erodium cicutarium	4		
Florida Beggarweed	Desmodium tortuosum	2	]	
Hemp Sesbania	Sesbania exaltata	8	]	
Jimsonweed	Datura stramonium	4	]	
Lambsquarters, Common	Chenopodium album	4	1	
Morningglories				
Entireleaf	Ipomoea hederacea var. integriuscula	4		
lvyleaf	Ipomoea hederacea	4	]	
Pitted	Ipomoea lacunosa	6		
Red/Scarlet	Ipomoea coccinea	4		
Tall	Ipomoea purpurea	4		
Mustard, Wild	Brassica kaber	6		
Pigweeds				
Palmer Amaranth	Amaranthus palmeri	6		
Redroot	Amaranthus retroflexus	6		
Smooth	Amaranthus hybridus	6		
Plaintain, Broadleaf	Plantago major	6		
Prickly Sida (Teaweed)	Sida spinosa	6	]	
Purslanes			]	
Common	Portulaca oleracea	4	]	
Rock	Calandrinia spp.	2	]	
Ragweeds			]	
Common	Ambrosia artemisiifolia	2	1	
Giant	Ambrosia trifida	4	1	
Rice Flatsedge	Cyperus iria	4	1	
Sicklepod	Senna obtusifolia	4	1	
Smartweeds			1	
Ladysthumb	Polygonum persicaria	4	1	
Pale	Polygonum lapathifolium	4	1	
Pennsylvania	Polygonum pensylvanicum	4	1	
Spotted Spurge	Euphorbia maculata	4	1	
Velvetleaf	Abutilon theophrasti	4	1	
Venice Mallow	Hibiscus trionum	4	1	
Waterhemps			1	

#### Table 13. Weeds Controlled by Postermergence Activity of AX-FLUMIOX Tank Mixes

Common	Amaranthus rudis	2	
Tall	Amaranthus tuberculatus	2	

<sup>1</sup> AX-FLUMIOX will only provide control of the above ground portion of bindweed. Repeated applications will be needed to control regrowth.

<sup>2</sup> For acceptable control, cutleaf evening primrose must be 12 inches or less and in the rosette stage. Add crop oil concentrate, at 1 pt./A, or non-ionic surfactant at 0.25% v/v, to glyphosate tank mixes for cutleaf evening primrose control, including glyphosate formulations that contain a built-in adjuvant system.

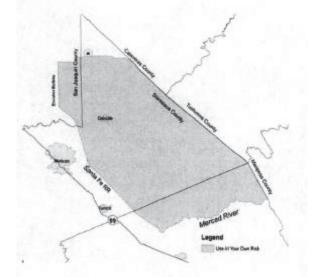
## ADDITIONAL RESIDUAL WEED CONTROL

AX-FLUMIOX maybe tank mixed with oryzalin (SURFLAN®), simazine or diuron for additional residual weed control. Always read and follow label use directions for all products being used.

# USE DIRECTIONS ON ALMOND AND STONE FRUITE IN A DEFINED AREA OF MERCED, SAN JAQUIN AND STANISLAUS COUNTIES OF CALIFORNIA

The use of AX-FLUMIOX in soils common in parts of Merced, San Joaquin and Stanislaus counties in California is known to have resulted in injury to almonds under drought stress conditions. These soils are characterized by having been cut or filled, high sand content, low clay content and shallow profiles. The Defined Area can be seen on the Map or by the description that follows:

- Intersection of Highway 4 and Escalon-Bellota Road at Farmington in San Joaquin County;
- Directly South on Escalon-Bellota to the Santa Fe Avenue and railroad tracks at Escalon
- Southeast on Santa Fe Avenue down to the Merced River;
- East following the Merced River to the Merced/Mariposa County line;
- Northwest following the Merced County line through the intersection of Merced and Stanislaus County line following the Stanislaus/Tuolumne County and Calaveras County line to Highway 4;
- West on Highway 4 back to the Farmington intersection of Escalon Bellota Road.



## DIRECTIONS FOR USE TO MAINTAIN BARE GROUND ON NON-CROP AREAS OF FARMS, ORCHARDS AND VINEYARDS

## **RESTRICTIONS AND LIMITATIONS**

- Do not apply to farm alleys or roads where traffic may result in treated dust settling onto crops or other desirable vegetation.
- Do not apply to ditch banks.

AX-FLUMIOX, when used as directed, can be used on farms, orchards and vineyards for non-selective vegetation control to maintain bare ground on non-crop areas that must be kept weed free. Follow all applicable directions as outlined above under "USE INFORMATION".

AX-FLUMIOX offers residual and postemergence control of susceptible broadleaf and grass weeds as well as an additional mode of action to assist in the control of ALS (acetolactate synthase) resistant weeds. AX-FLUMIOX can be tank mixed with the herbicides listed in Table 14 for increased residual or postemergence control. The length of residual control is dependent on the rate applied as well as on rainfall and temperature conditions. Length of residual control will decrease as temperature and precipitation increase. AX-FLUMIOX rates of 6 to 12 oz./A are required to provide residual control of the weeds listed in Table 10.

## PREEMERGENCE APPLICATION

Apply 6 to 12 oz. (0.188 to 0.38 lb. ai/A) of AX-FLUMIOX per broadcast acre as a preemergence application. Make preemergence (to weed emergence) applications of AX-FLUMIOX to a weed-free soil surface. Preemergence applications of AX-FLUMIOX must be completed prior to weed emergence. Moisture is necessary to activate AX-FLUMIOX on soil for residual weed control. Dry weather following application of AX-FLUMIOX may reduce effectiveness. However, when adequate moisture is received after dry conditions, AX-FLUMIOX will control susceptible germinating weeds.

### POSTEMERGENCE APPLICATION

Apply 6 to 12 oz. (0.188 to 0.38 lb. ai/A) of AX-FLUMIOX per broadcast acre plus an adjuvant (0.25% v/v non-ionic surfactant or 1 qt./A crop oil concentrate). The addition of an adjuvant enhances AX-FLUMIOX activity on emerged weeds. Thorough spray coverage is necessary to maximize the postemergence activity of AX-FLUMIOX. Emerged weeds are controlled postemergence with AX-FLUMIOX, however, translocation of AX-FLUMIOX within a weed is limited, and control is affected by spray coverage and by the addition of an adjuvant. The most effective postemergence weed control with AX-FLUMIOX occurs when applied in combination with a surfactant to weeds less than 2 inches in height. Use a tank mix partner in combination with AX-FLUMIOX for the postemergence control of weeds larger than 2 inches. Tank mix partners are listed in Table 14.

**IMPORTANT:** Completely read and follow the label of any potential tank mix partner with AX-FLUMIOX. When using tank mixtures, use conditions must be in accordance with the most restrictive of the label limitations and precautions on either herbicide label

Table 14. Tank Mix Combinations to Maintain Bare Ground on Non-Crop Areas					
Glyphosate	2,4-D	Rely	paraquat		

STORAGE AND DISPOSAL
Do not contaminate water, food or feed by storage, disposal or cleaning of equipment.
PESTICIDE STORAGE
Keep pesticide in original container.
Store in a cool, dry, secure place.
Do not put formulation or dilute spray solution into food or drink containers.
Do not contaminate food or foodstuffs.
Do not store or transport near feed or food.
Not for use or storage in or around the home.
For help with any spill, leak, fire or exposure involving this material, call day or night 1-877-250-9291.
PESTICIDE DISPOSAL
Wastes resulting from the use of this product may be disposed of on site or at an approved waste
disposal facility.
CONTAINER HANDLING
[Nonrefillable container. Do not reuse or refill this container. Offer for recycling, if available. Clear
container promptly after emptying. Triple rinse as follows: Empty the remaining contents into application
equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 ful
with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank of
store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this
procedure two more times.
Then offer for recycling, if available or puncture and dispose of in a sanitary landfill.]
-or- Note to EPA reviewer: if this product is shipped in containers greater than 50 lbs, the following
container handling statement will be added to the label:
[Container statement for nonrefillable container with liner]
[Nonrefillable bag: Do not reuse or refill this bag. Completely empty bag by shaking and tapping sides
and bottom to loosen clinging particles. Empty residue into equipment. Do not reuse bag. Dispose of bag
in a sanitary landfill or by incineration if allowed by State and local authorities. Offer for recycling i
available. Liner: Completely empty liner by shaking and tapping sides and bottom to loosen clinging
particles. Empty residue into equipment. Do not reuse liner. Dispose of liner in a sanitary landfill or by
incineration if allowed by State and local authorities.]

-or-

#### [Container statement for nonrefillable drum with liner]

[Nonrefillable container: Do not reuse or refill this container. Offer for recycling if available. Clean container promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Liner: Completely empty liner by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into equipment. Do not reuse liner. Dispose of liner in a sanitary landfill or by incineration if allowed by State and local authorities.]

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

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

The Directions tor Use of this product must be followed carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Ineffectiveness or other unintended consequences may result because of such factors as manner of use or application, weather, presence of other materials or other influencing factors in the use of the product, which are beyond the control of AXION AG PRODUCTS LLC or Seller, TO THE EXTENT CONSISTENT WITH APPLICABLE LAW All such risks shall be assumed by Buyer and User, and Buyer and User agree to hold AXION AG PRODUCTS LLC and Seller harmless for any claims relating to such factors.

AXION AG PRODUCTS LLC warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use, subject to the inherent risks referred to above, when used in accordance with directions under normal use conditions. This warranty does not extend to the use of this product contrary to label instructions, or under abnormal conditions or under conditions not reasonably foreseeable to or beyond the control of Seller or AXION AG PRODUCTS LLC, and TO THE EXTENT CONSISTENT WITH APPLICABLE LAW Buyer and User assume the risk of any such use. AXION AG PRODUCTS LLC MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE OR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS STATED ABOVE.

To the extent consistent with applicable law, neither AXION AG PRODUCTS LLC nor Seller shall be liable for any incidental, consequential or special damages resulting from the use or handling of this product. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF AXION AG PRODUCTS LLC AND SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT OR, AT THE ELECTION OF AXION AG PRODUCTS, LLC OR SELLER, THE REPLACEMENT OF THE PRODUCT.

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Made in U.S.A.

# AX-FLUMIOX EPA Reg. No. 89167-AX-FLUMIOX USE IN OLIVE; POMEGRANATE AND ARTICHOKE

## SUPPLEMENTAL LABELING

This label expires on September 11, 2016 and must not be distributed or used after that date.

READ THE ENTIRE LABEL FOR AX-FLUMIOX BEFORE PROCEEDING WITH THE USE DIRECTIONS CONTAINED IN THIS SUPPLEMENTAL LABELING.

"Label" as used in this supplemental labeling refers to the label booklet for AX-FLUMIOX and this supplement.

# ACTIVE INGREDIENT.

ACTIVE INGREDIENT:	% BY WT.
Flumioxazin*	51.00%
OTHER INGREDIENTS	<u>49.00%</u>
TOTAL:	100.00%
*2-[7-fluoro-3,4-dihydro-3-oxo-4-(2-propynyl)-2H-1,4-benzoxazin-6-yl]-4,5,6,7-tetrahydro-1H-isoindole	e- 1,3(2H)-dione

AX-FLUMIOX is a water dispersible granule containing 51% active ingredient

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

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

## DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. This supplemental labeling must be in the possession of the user at the time of pesticide application. Follow all applicable directions, restrictions, Worker Protection Standard requirements, and precautions on the EPA registered label.

These directions can be found on the currently registered EPA Stamped Label.

In addition to the PPE required on the container label the following is also required: For aerial application to artichoke mixer/loaders must also wear; filtering face piece respirator (N95, R95 or P95).

For ground boom application to olive and pomegranate mixer/loaders must also wear: filtering face piece respirator (N95, R95 or P95).

## **BANDED APPLICATION TABLE**

Amount needed per Acre for	=	Band Width in Inches	Х	Rate per Broadcast Acre	
Banded Application		Row Width in Inches			

## DIRECTIONS FOR USE IN OLIVE AND POMEGRANATE

#### **RESTRICTIONS AND LIMITATIONS**

- Do not apply more than 12 oz. of AX-FLUMIOX per acre during a single application.
- Do not apply more than 24 oz. of AX-FLUMIOX per acre during a 12 month period.
- Do not make a sequential application within 30 days of the first application. •
- Use a maximum AX-FLUMIOX rate of 6 oz./A per application on any soil that has a sand plus gravel content over 80%, if trees are less than 3 years of age. (Two applications of 6 oz./A in a 12 month period can still be made as long as there have been 60 days between applications).
- Do not apply to farm alleys or roads where traffic may result in treated dust settling onto crops or • other desirable vegetation.
- Do not apply within 300 yards of non-dormant pears. •
- Raise mower height during all mowing to reduce dust. Dust created by mowing can drift onto desirable vegetation resulting in injury.

- Do not apply to powdery soils or soils that are susceptible to wind displacement unless irrigation can be applied immediately after application.
- Do not mow treated areas between bud break and final harvest. Dust created by mowing may drift onto desirable vegetation resulting in injury.
- Follow the most restrictive label limitations and precautions of the tank mix product(s) being used.
- Avoid direct or indirect spray contact to foliage and green bark (non-barked trunk).

For olive and pomegranate, apply AX-FLUMIOX as a uniform broadcast application to the orchard or as a uniform band directed at the base of the trunk. The preferred application timing for AX-FLUMIOX is in the fall to maximize the potential for rainfall to activate and set the herbicide. Do not apply over the top of crop or allow spray to come in contact with crop as a result of application or drift.

## **Preemergence Application**

Apply 6 to 12 oz. (0.188 to 0.38 lb. ai/A) of AX-FLUMIOX per broadcast acre as a preemergence application. Make preemergence (to weed emergence) applications of AX-FLUMIOX to a weed-free soil surface. Preemergence applications of AX-FLUMIOX must be completed prior to weed emergence. Moisture is necessary to activate AX-FLUMIOX on soil for residual weed control. Dry weather following application of AX-FLUMIOX may reduce effectiveness. However, when adequate moisture is received after dry conditions, AX-FLUMIOX will control susceptible germinating weeds.

#### **Postemergence Application**

Apply 6 to 12 oz (0.188 to 0.38 lb ai/A) of AX-FLUMIOX per broadcast acre plus an adjuvant (0.25% v/v nonionic surfactant or 1 qt/A crop oil concentrate). The addition of an adjuvant enhances AX-FLUMIOX activity on emerged weeds. Thorough spray coverage is necessary to maximize the postemergence activity of AX-FLUMIOX.

Refer to Weeds Controlled By The Residual Activity of AX-FLUMIOX. Tank mix AX-FLUMIOX with a labeled burndown herbicide for control of the emerged weeds listed in table Weeds Controlled by Postemergence Activity of AX-FLUMIOX Tank Mixes. Refer to tank mix partner's label for additional weed species and increased weed heights claimed. Refer to tank mix partner's label for additional restrictions, including minimum carrier volume and crops in which tank mix partner may be used. Burndown tank mix partners include glyphosate, paraquat, 2,4-D and RELY®. Do not tank mix with glyphosate or 2,4-D containing products during the period after bloom through final harvest to ensure crop safety from drift.

Residual weed control will be reduced if vegetation prevents the AX-FLUMIOX from reaching the soil surface. If vegetation is heavy use a burndown herbicide with AX-FLUMIOX and make a sequential AX-FLUMIOX application prior to the emergence of new weeds.

#### **Carrier Volume and Spray Pressure**

To ensure thorough coverage in burndown applications, use a minimum of 15 gallons of spray solution per acre. Use higher gallonage if dense vegetation or heavy crop residue is present.

Nozzle selection must meet manufacturer's gallonage and pressure specifications.

#### **Banded Application**

Rates listed in *Weeds Controlled by Postemergence Activity of AX-FLUMIOX Tank Mixes* refer to a broadcast application covering the entire acre. Refer to the Band Application table to calculate amount needed per acre when making banded application.

## USE DIRECTIONS FOR OLIVE AND POMEGRANATE

For olive and pomegranate apply after bud break through final harvest using shielded application equipment if the applicator can ensure the spray drift will not come into contact with non-target vegetation, crop fruit and/or foliage. Shielded application equipment is not required if the following application parameters are followed:

- Application pressure (at boom) < 30 PSI.
- Application speed < 5 MPH.

- Applicator can ensure the spray drift will not come into contact with non-target vegetation, crop fruit and/or foliage.

Do not apply within 60 days prior to harvest.

Do not apply to trees established less than one year, unless protected from spray contact by non-porous wraps, grow tubes, paint or waxed containers.

## USE DIRECTIONS FOR NON-BEARING TREES Olive and Pomegranate

Do not apply more than 12 oz of AX-FLUMIOX per acre during a single application.

Do not apply more than 24 oz of AX-FLUMIOX per acre during a 12 month period.

Do not harvest fruit from treated trees within one year of application.

Do not apply to trees established less than one year, unless protected from spray contact by non-porous wraps, grow tubes or waxed containers.

Do not apply during the period after flowering through leaf drop, unless using shielded application equipment and the applicator can ensure spray drift will not come in contact with the crop foliage.

BROADLEAF WEED SF	PECIES			
COMMON NAME	SCIENTIFIC NAME	ORGANIC MATTER	SOIL TYPE	AX- FLUMIOX RATE
Bristly Starbur	Acanthospermum hispidum	Up to 10% <sup>1</sup>	All Soil	6 to 12 oz/A <sup>2</sup>
Carpetweed	Mollugo verticillata		Types <sup>2</sup>	
Chickweeds				
Common	Stellaria media			
Mouseear	Cerastium vulgatum			
Coffee Senna	Cassia occidentalis			
Dandelion	Taraxacum officinale			
Eclipta	Eclipta prostrata			
Eveningprimrose, Cutleaf	Oenothera laciniata			
False Chamomile	Tripleurospermum maritima			
Filaree				
Redstem	Erodium cicutarium			
Whitestem	Erodium moschatum			
Fiddleneck, Coast	Amsinckia menziesii			
Fleabane, Hairy	Conyza bonariensis			
Field Pennycress	Thlaspi arvense			
Florida Beggarweed	Desmodium tortuosum			
Florida Pusley	Richardia scabra			
Golden Crownbeard	Verbesina encelioides			
Groundsel, Common	Senecio vulgaris			
Hairy Indigo	Indigofera hirsuta			
Hemp Sesbania	Sesbania exaltata			
Henbit	Lamium amplexicaule			
Jimsonweed	Datura stramonium			
Kochia	Kochia scoparia			
Lambsquarters,	Chenopodium album			
Common				
Mallow				
Common (Cheeseweed)	Malva neglecta			
Little	Malva parviflora			
Horseweed/Marestail	Conyza canadensis			

### Weeds Controlled by Preemergence Application of AX-FLUMIOX

Maynuand/Ealan	Matricaria maritima		
Mayweed/False	Matricaria maritima		
Chamomile		-	
Morningglories Entireleaf	Inomono hadaraaaa var	-	
Entirelear	Ipomoea hederacea var. integriuscula		
Ivyleaf	Ipomoea hederacea	-	
Red/Scarlet		-	
Smallflower	Ipomoea coccinea	-	
Tall	Jacquemontia tamnifolia	-	
Mustards	Ipomoea purpurea	-	
London Rocket	Sisymbrium irio	-	
		-	
Tansey Tumble	Desurainia pinnata	-	
Wild	Sisymbrium altissimum Brassica kaber	-	
		-	
Nettle, Burning	Urtica urens		
Nightshades		-	
Black	Solarium nigrum	-	
Eastern Black	Solarium ptycanthum	-	
Hairy	Solanum sarrachoides	-	
Pigweeds	Amorophics polyage	-	
Palmer Amaranth	Amaranthus palmeri	-	
Redroot	Amaranthus retroflexus	_	
Smooth	Amaranthus hybridus	_	
Spiny Amaranth	Amaranthus spinosus	_	
Tumble	Amaranthus albus	_	
Prickly Lettuce	Lactuca serriola		
(China Lettuce)	0.11	_	
Prickly Sida (Teaweed)	Sida spinosa	_	
Puncturevine	Tribulus terrestris	_	
Purslane		_	
Common	Portulaca oleracea	_	
Horse	Trianthema portulacastrum	_	
Radish, Wild	Raphanus raphanistrum	_	
Ragweed, Common	Ambrosia artemisiifolia	_	
Redmaids	Calandrinia ciliata var.		
	menziessi.	_	
Redweed	Melochia corchorifolia	_	
Shepherd's-purse	Capsella bursa-pastoris	_	
Smellmelon	Cucumis melo	_	
Sowthistle, Annual <sup>3</sup>	Sonchus oleraceus	-	
Spotted Spurge	Euphorbia maculate	4	
Spurred Anoda	Anoda cristata	4	
Thistle, Russian	Salsola iberica	-	
Tropic Croton	Croton glandulosus	4	
Venice Mallow	Hibiscus trionum	_	
Waterhemps		_	
Common	Amaranthus rudis	_	
Tall	Amaranthus tuberculatus		
Wild Poinsettia	Euphorbia heterophylla		
White Cockle	Silene latifolia		
Wormwood, Biennial	Artemisia biennis		
Yellow Rocket	Barbarea vulgaris		

AX-FLUMIOX can be used on soils with greater than 10% organic matter; however, length of residual control may be shorter than on

soils with lower organic matter content. <sup>2</sup> Use a maximum AX-FLUMIOX rate of 6 oz./A per application on any soil that has a sand plus gravel content over 80% if bushes, trees or vines are under 3 years of age. <sup>3</sup> Except CA.

# Weeds Controlled by Preemergence Application of AX-FLUMIOX (continued)

BROADLEAF WEED SPE	CIES			
COMMON NAME	SCIENTIFIC NAME	ORGANIC MATTER	SOIL TYPE	AX-FLUMIOX
				RATE
<b>GRASS WEED SPECIES</b>		Up to 10% <sup>1</sup>	All Soil	6 to12 oz./A <sup>2</sup>
Barnyardgrass	Echinochloa crus-galli		Types <sup>2</sup>	
Bluegrass, Annual	Poa annua			
Crabgrass				
Large	Digitaria sanquinalis			
Smooth	Digitaria ischaemum			
Foxtails				
Bristly	Setaria verticillata			
Giant	Setaria faberi			
Green	Setaria viridis			
Yellow	Setaria glauca			
Goosegrass	Eleusine indica			
Guineagrass	Panicum maximum			
Johnsongrass, Seedling	Sorghum halepense			
Lovegrass, California	Eragrostis diffusa			
Panicum				
Fall	Panicum dichotomiflorum			
Texas	Panicum texaum			
Ryegrass, Italian	Lolium multiflorum			
Signalgrass, Broadleaf	Brachiaria platyphylla			

1 AX-FLUMIOX can be used on soils with greater than 10%; however, length residual control may be shorter than on soils with lower organic matter content. 2 Use a maximum AX-FLUMIOX rate of 6 oz./A per application on any soil that has a sand plus gravel content over 80% if used on

bushes, trees or vines are under 3 years of age.

# Weeds Controlled by Postermergence Activity of AX-FLUMIOX Tank Mixes BROADLEAF WEED SPECIES

BROADLEAF WEED SPECI			1
COMMON NAME	HEIGHT/LENGTH		AX-FLUMIOX
Bindweed, Field <sup>1</sup>	Convolvulus arvensis	8	6 to12 oz./A
Carpetweed	Mollugo verticillata	4	
Chickweeds			
Common	Stellaria media	4	
Mouseear	Cerastium vulgatum	4	
Cocklebur, Common	Xanthium strumarium	4	
Eveningprimrose, Cutleaf <sup>2</sup>	Oenothera laciniata	12	
Filaree			
Broad leaf	Erodium botiys	4	
Redstem	Erodium cicutarium	4	
Florida Beggarweed	Desmodium tortuosum	2	
Hemp Sesbania	Sesbania exaltata	8	
Jimsonweed	Datura stramonium	4	
Lambsquarters, Common	Chenopodium album	4	
Morningglories			
Entireleaf	Ipomoea hederacea var. integriuscula	4	
Ivyleaf	Ipomoea hederacea	4	1
Pitted	İpomoea lacunosa	6	
Red/Scarlet	İpomoea coccinea	4	
Tall	Ipomoea purpurea	4	

Mustard, Wild	Brassica kaber	6
Pigweeds		0
		<u> </u>
Palmer Amaranth	Amaranthus palmeri	6
Redroot	Amaranthus retroflexus	6
Smooth	Amaranthus hybridus	6
Plaintain, Broadleaf	Plantago major	6
Prickly Sida (Teaweed)	Sida spinosa	6
Purslanes		
Common	Portulaca oleracea	4
Rock	Calandrinia spp.	2
Ragweeds		
Common	Ambrosia artemisiifolia	2
Giant	Ambrosia trifida	4
Rice Flatsedge	Cyperus iria	4
Sicklepod	Senna obtusifolia	4
Smartweeds		
Ladysthumb	Polygonum persicaria	4
Pale	Polygonum lapathifolium	4
Pennsylvania	Polygonum pensylvanicum	4
Spotted Spurge	Euphorbia maculata	4
Velvetleaf	Abutilon theophrasti	4
Venice Mallow	Hibiscus trionum	4
Waterhemps		
Common	Amaranthus rudis	2
Tall	Amaranthus tuberculatus	2

<sup>1</sup> AX-FLUMIOX will only provide control of the above ground portion of bindweed. Repeated applications will be needed to control regrowth.

<sup>2</sup> For acceptable control, apply to cutleaf evening primrose that is 12 inches or less and in the rosette stage. Add a crop oil concentrate, at 1 pt./A, or non-ionic surfactant at 0.25% v/v to glyphosate tank mixes for cutleaf evening primrose control, including glyphosate formulations that contain a built-in adjuvant system.

## DIRECTIONS FOR USE IN ARTICHOKE

## **RESTRICTIONS AND LIMITATIONS**

- Do not apply more than 4 oz/A of AX-FLUMIOX per acre during a single application on annual or perennial artichoke varieties after new planting.
- Do not apply more than 6 oz/A of AX-FLUMIOX per acre during a single application on perennial artichoke varieties after cutback.
- Do not apply more than 6 oz of AX-FLUMIOX per acre during a single growing season.
- Application to artichoke foliage may result in unacceptable crop injury.

## **TIMING TO ARTICHOKE**

Annual Varieties: AX-FLUMIOX may be applied to artichoke beds prior to transplanting. Application of AX-FLUMIOX must be made to the beds no later than 2 days prior to transplanting. Irrigation or rainfall after transplanting is necessary to activate the AX-FLUMIOX. Do not irrigate the AX-FLUMIOX before transplanting. Heavy irrigation or rainfall may result in crop injury. The injury is usually transitory and the plants will quickly grow out of the crop damage. Care should be taken to minimize soil disturbance during transplanting as preemergence weed control will decrease as soil disturbance increases.

**Perennial Varieties:** AX-FLUMIOX may be applied to artichokes after planting of crown pieces or "cut back" of mature plants. Applications of AX-FLUMIOX must be made within 2 days after planting or cut back and prior to artichoke emergence. Application after the artichokes have begun to crack, or are emerged, will result in crop injury. Do not apply when artichokes have begun to emerge (cracking).

## TIMING TO WEEDS

Pre-plant (annual) Preemergence (perennial) to Artichokes - Preemergence to Weeds

Apply AX-FLUMIOX pre-plant to annual artichokes for preemergence control of the weeds. For perennial artichokes apply before cracking for preemergence control the weeds. Apply prior to weed emergence. A post-emergence herbicide may be necessary to control emerged weeds. AX-FLUMIOX may be applied to annual or perennial artichokes as specified above for preemergence control of weeds listed in table *Weeds Controlled by Residual Activity of AX-FLUMIOX.* 

BROADLEAF WEED SPEC	-			AX-
COMMON NAME	SCIENTIFIC NAME	ORGANIC MATTER	SOIL TYPE	FLUMIOX RATE
Bristly Starbur	Acanthospermum hispidum	Up to 5%	All Soil	4 oz./A
Carpetweed	Mollugo verticillata		Types	
Chickweeds				
Common	Stellaria media			
Mouseear	Cerastium vulgatum			
Coffee Senna	Cassia occidentalis			
Copperleaf, Hophornbeam	Cassia occidentalis			
Dandelion	Taraxacum officinale			
Eclipta	Eclipta prostrate			
Evening Primrose, Cutleaf	Oenothera laciniata			
False Chamomile	Tripleurospermum maritima			
Fiddleneck, Coast	Amsinckia menziesii			
Field Pennycress	Thlaspi arvense			
Fleabane, Hairy	Conyza bonariensis			
Flixweed	Descurainia spophia			
Florida Beggarweed	Desmodium tortuosum			
Florida Pusley	Richardia scabra			
Golden Crownbeard	Verbesina encelioides			
Groundsel, Common	Senecio vulgaris			
Hairy Indigo	Indigofera hirsuta			
Hemp Sesbania	Sesbania exaltata			
Henbit	Lamium amplexicaule			
Jimsonweed	Datura stramonium			
Kochia	Kochia scoparia			
Lambsquarters, Common	Chenopodium album			
Little Mallow	Malva parviflora			
London Rocket	Sisymbrium irio			
Marestail/Horseweed	Conyza canadensis			
Mayweed/False	Matricaria maritima			
Chamomile	Matricana manuma			
Morningglories				
Entireleaf	Ipomoea hederacea var.			
Entirclear	integriuscula			
lvyleaf	Ipomoea hederacea			
Red/Scarlet	Ipomoea coccinea			
Smallflower	Jacquemontia tamnifolia			
Tall	Ipomoea purpurea			
Mustard				
Tansy	Descurainia pinnata	—		
Tumble	Sisymbrium altissimum			
Wild	Brassica kaber			
Nettle, Burning	Urtica urens			
Nightshades	Solorium pigrum			
Black	Solarium nigrum			
Eastern Black	Solarium ptycanthum			

## Weeds Controlled by Residual Activity of AX-FLUMIOX

Hairy	Solanum sarrachoides
Pigweeds	
Palmer Amaranth	Amaranthus palmeri
Redroot	Amaranthus retroflexus
Smooth	Amaranthus hybridus
Spiny Amaranth	Amaranthus spinosus
Tumble	Amaranthus albus
Prickly Lettuce	Lactuca serriola
(China Lettuce)	
Prickly Sida (Teaweed)	Sida spinosa
Sowthistle, Prickly	Sonchus asper
Puncturevine	Tribulus terrestris
Purslane	
Common	Portulaca oleracea
Horse	Trianthema portulacastrum
Radish, Wild	Raphanus raphanistrum
Ragweed, Common	Ambrosia artemisiifolia
Redmaids	Calandrinia ciliata var. menziesii
Russian Thistle	Salsola iberica
Shepherd's-purse	Capsella bursa-pastoris
Smartweeds	
Ladysthumb	Polygonum persicaria
Pennsylvania	Polygonum pensylvanicum
Smellmelon	Cucumis melo
Spotted Spurge	Euphorbia maculata
Spurred Anoda	Anoda cristata
Tropic Croton	Croton glandulosus
Velvetleaf	Abutilon theophrasti
Venice Mallow	Hibiscus trionum
Waterhemps	
Common	Amaranthus rudis
Tall	Amaranthus tuberculatus
White Cockle	Silene latifolia
Wild Poinsettia	Euphorbia heterophylla
Wormwood, Biennial	Artemisia biennis
Yellow Rocket	Barbarea vulgaris

# Weeds Controlled by Residual Activity of AX-FLUMIOX (continued)

BROADLEAF WEED SPE	CIES			
COMMON NAME	SCIENTIFIC NAME	ORGANIC MATTER	SOIL TYPE	AX- FLUMIOX RATE
GRASS WEED SPECIES		Up to 5%	All Soil Types	4 oz./A
Barnyardgrass	Echinochloa crus-galli			
Bluegrass, Annual	Poa annua			
Crabgrass, Large	Digitaria sanguinalis			
Foxtail, Giant	Setaria faberi			
Goosegrass	Eleusine indica			
Lovegrass, California	Eragrostis diffusa			
Panicums				
Fall	Panicum dichotomiflorum			
Texas	Panicum texanum			
Ryegrass, Italian	Lolium multiflorum			
Signalgrass, Broadleaf	Brachiaria platyphylla			