



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY
AND POLLUTION PREVENTION

August 5, 2021

Keeva Shultz
Agent for Tigris, LLC
c/o Wagner Regulatory Associates, Inc.
P.O. Box 640
Hockessin, DE 19707

Subject: Label Amendment – Updated PPE, Revised Rate Correction, and Minor Changes Product
Name: Flumioxazin 51 WDG Prime
EPA Registration Number: 92647-30
Application Date: September 01, 2020
Decision Number: 567116

Dear Ms. Shultz:

The amended label referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act, as amended, is acceptable. This approval does not affect any conditions that were previously imposed on this registration. You continue to be subject to existing conditions on your registration and any deadlines connected with them.

A stamped copy of your labeling is enclosed for your records. This labeling supersedes all previously accepted labeling. You must submit one copy of the final printed labeling before you release the product for shipment with the new labeling. In accordance with 40 CFR 152.130(c), you may distribute or sell this product under the previously approved labeling for 18 months from the date of this letter. After 18 months, you may only distribute or sell this product if it bears this new revised labeling or subsequently approved labeling. "To distribute or sell" is defined under FIFRA section 2(gg) and its implementing regulation at 40 CFR 152.3.

Should you wish to add/retain a reference to the company's website on your label, then please be aware that the website becomes labeling under the Federal Insecticide Fungicide and Rodenticide Act and is subject to review by the Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 CFR 156.10(a)(5) list examples of statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product's label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the Agency find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA approved registration, the website will be referred to the EPA's Office of Enforcement and Compliance.

Your release for shipment of the product constitutes acceptance of these conditions. If these conditions are not complied with, the registration will be subject to cancellation in accordance

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with FIFRA section 6. If you have any questions, please contact Ernest Kraka by phone at 703-347-8455, or via email at kraka.ernest@epa.gov.

Sincerely,

A handwritten signature in black ink that reads "Shaja B. Joyner". The signature is written in a cursive style with a large, stylized initial "S".

Shaja B. Joyner, Product Manager 20
Fungicide-Herbicide Branch
Registration Division 7505P

Enclosure

FLUMIOXAZIN	GROUP	14	HERBICIDE
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[Master Label]

Flumioxazin 51WDG Prime

ABN: Tigris Flumioxazin 51WDG

For use as labeled on Alfalfa, Artichoke, Asparagus, Brassica Vegetable (Head and Stem, Group 5-16), Bushberry (Subgroup 13-07B), Cactus (Prickly Pear), Caneberry (Subgroup 13-07B), Celery, Citrus (Group 10-10), Clover, Corn (Field), Cotton, Cucurbit Vegetables (Group 9), Flax, Fruiting Vegetables (Group 8-10), Garlic, Grape, Hops, Lentils, Melons (Transplanted), Olive, Onion (Dry Bulb, Subgroup 3-07A), Peanut, Peas and Beans (Dried Shelled, Subgroup 6C), Pepper (Beds), Peppermint and Spearmint Tops, Pome Fruit (Group 11-10), Pomegranate, Potato, Safflower, Soybean, Stone Fruit (Group 12-12), Strawberry, Sugarcane, Sunflower (Group 20B), Sweet Potato, Tomato (Beds), Tree Nuts (Group 14-12), Wheat, and Non Crop Uses: Fruit Trees (Non-bearing), Fallow Land, to Maintain Bare Ground on Non-Crop Areas of Farms, Orchards and Vineyards, Use in Container and Field Grown Conifers (Including Christmas Trees) and Deciduous Trees, Around Established Woody Ornamentals in Landscapes, To Maintain Bare Ground Non-Crop Areas, Conifer and Poplar Re-forestation Sites, Dormant Turfgrass, and Management of Undesirable Aquatic Vegetation in Slow Moving or Quiescent Waters

Contains flumioxazin, the active ingredient used in Valor® SX and Chateau®.

ACTIVE INGREDIENT:	% BY WT.
Flumioxazin: 2-[7-flouro-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	51.0%
OTHER INGREDIENTS:	49.0%
TOTAL:	100.0%

Flumioxazin 51WDG Prime is a water dispersible granule containing 51% active ingredient.

KEEP OUT OF REACH OF CHILDREN

CAUTION

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)

FIRST AID	
IF ON SKIN OR CLOTHING:	<ul style="list-style-type: none"> Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.
IF INHALED:	<ul style="list-style-type: none"> Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice.
HOTLINE NUMBER	
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. For emergency information concerning this product, call your poison control center at 1-800-222-1222 .	

[Optional referral statements when booklets and container labels are used:

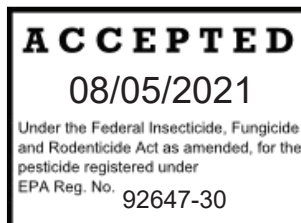
- See Panel for First Aid Instructions and booklet for complete Precautionary Statements and Directions For Use.
- See label booklet for complete Precautionary Statements, Directions For Use, and Storage and Disposal.
- See label booklet for additional Precautionary Statements, Directions For Use, and Storage and Disposal.
- See label booklet for complete Directions For Use.]

EPA Reg. No. 92647-30

EPA Est. No. XXXXX-XX-XXX

Net Contents: _____ [Lbs./Kg.]

Manufactured For:
Tigris, LLC
10025 Hwy. 264 Alternate
Middlesex, NC 27557



Flumioxazin 51WDG Prime is not manufactured, or distributed by Valent U.S.A. Corporation, seller of Valor and Chateau.

FLUMIOXAZIN	GROUP	14	HERBICIDE
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[Sub-Label A]

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Contains flumioxazin, the active ingredient used in Valor® SX and Chateau®.

ACTIVE INGREDIENT:	% BY WT.
Flumioxazin: 2-[7-flouro-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	51.0%
OTHER INGREDIENTS:	49.0%
TOTAL:	100.0%

Flumioxazin 51WDG Prime is a water dispersible granule containing 51% active ingredient.

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HOTLINE NUMBER	
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[Optional referral statements when booklets and container labels are used:

See Panel for First Aid Instructions and booklet for complete Precautionary Statements and Directions For Use.

See label booklet for complete Precautionary Statements, Directions For Use, and Storage and Disposal.

See label booklet for additional Precautionary Statements, Directions For Use, and Storage and Disposal.

See label booklet for complete Directions For Use.]

EPA Reg. No. 92647-30

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Net Contents: _____ [Lbs./Kg.]

Manufactured For:

Tigris, LLC
10025 Hwy. 264 Alternate
Middlesex, NC 27557

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PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION

Harmful if absorbed through skin. Harmful if inhaled. Avoid contact with skin, eyes, or clothing. Avoid breathing dust or spray mist. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove and wash contaminated clothing before reuse.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Socks and Shoes
- Chemical-resistant gloves made of any waterproof material.

For aerial application to sugarcane, mixer/loaders must also wear:

- Coveralls
- Chemical resistant apron
- Chemical resistant boots

For aerial application to artichoke; field peas; flax; lentils; safflower; sunflower and wheat, mixer/loaders must also wear:

- Wear a minimum of a NIOSH approved filtering face piece respirator with any N filter (TC-84A). You can also use other NIOSH approved particulate respirators that offer more protection, including a half face or full face respirator with any filter or a powered air purifying respirator with an HE filter. For more information about these options, see www.epa.gov/pesticide-respirators

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

- Wear a minimum of a NIOSH approved filtering face piece respirator with any N filter (TC-84A). You can also use other NIOSH approved particulate respirators that offer more protection, including a half face or full face respirator with any filter or a powered air purifying respirator with an HE filter. For more information about these options, see www.epa.gov/pesticide-respirators

USER SAFETY REQUIREMENTS

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

USER SAFETY RECOMMENDATIONS

Users should:

- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

ENVIRONMENTAL HAZARDS

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 or rinsate.

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, including no till, limited till and contour plowing; these methods also reduce pesticide run-off. Use of vegetation filter strips along rivers, creeks, streams, wetlands or on the downhill side of fields where run-off could occur will 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.]

PHYSICAL OR CHEMICAL HAZARDS

DO NOT mix or allow coming in contact with oxidizing and reducing agents. A hazardous chemical reaction may occur.

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 label 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, including 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 Standard 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.

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.

It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

RESISTANCE MANAGEMENT

For resistance management, **Flumioxazin 51WDG Prime** is a Group 14 herbicide. Any weed population may contain or develop plants naturally resistant to **Flumioxazin 51WDG Prime** and other Group 14 herbicides. The resistant biotypes may dominate the weed population if these herbicides are used repeatedly in the same field. Appropriate resistance-management strategies should be followed.

To delay herbicide resistance take one or more of the following steps:

- Rotate the use of **Flumioxazin 51WDG Prime** or other Group 14 herbicides within a growing season sequence or among growing seasons with different herbicide groups that control the same weeds in a field.
- Use tank mixtures from a different group if such use is permitted; where information on resistance in target weed species is available, use the less resistance-prone partner at a rate that will control the target weed(s) equally as well as the more resistance-prone partner. Consult your local extension service or certified crop advisor if you are unsure as to which active ingredient is currently less prone to resistance.
- Adopt an integrated weed-management program for herbicide use that includes scouting and uses historical information related to herbicide use and crop rotation, and that considers tillage (or other mechanical control methods), cultural (e.g., higher crop seeding rates; precision fertilizer application method and timing to favor the crop and not the weeds), biological (weed-competitive crops or varieties) and other management practices.
- Scout after herbicide application to monitor weed populations for early signs of resistance development. Indicators of possible herbicide resistance include: (1) failure to control a weed species normally controlled by the herbicide at the dose applied, especially if control is achieved on adjacent weeds; (2) a spreading patch of non-controlled plants of a particular weed species; (3) surviving plants mixed with controlled individuals of the same species. If resistance is suspected, prevent weed seed production in the affected area by an alternative herbicide from a different group or by a mechanical method including hoeing or tillage. Prevent movement of resistant weed seeds to other fields by cleaning harvesting and tillage equipment when moving between fields, and planting clean seed.
- If a weed pest population continues to progress after treatment with this product, discontinue use of this product, and switch to another management strategy or herbicide with a different mode of action, if available.
- Contact your local extension specialist or certified crop advisors for additional pesticide resistance management and/or integrated weed-management directions for specific crops and weed biotypes.
- For further information or to report suspected resistance, contact Prime Source, LLC.

PRODUCT INFORMATION

Flumioxazin 51WDG Prime uses:

- **Flumioxazin 51WDG Prime** provides residual control of susceptible weeds.
- **Flumioxazin 51WDG Prime** provides additional burndown activity when used as part of a burndown program.
- **Flumioxazin 51WDG Prime** can be applied as part of a fall burndown program for control of susceptible winter annuals.
- **Flumioxazin 51WDG Prime** can be applied with a hooded or shielded sprayer, as well as part of a layby application, in selected crops for post-emergence weed control as well as residual control of susceptible weeds.
- **Flumioxazin 51WDG Prime** 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.

Flumioxazin 51WDG Prime Rate Summary	
Ounces of Flumioxazin 51WDG Prime	Pounds of Flumioxazin
0.5	0.016
1	0.032
1.5	0.049
2	0.064
2.5	0.080
4	0.128
6	0.191
8	0.255
12	0.383
24	0.765

Restrictions:

- **DO NOT** apply this product when weather conditions favor spray drift from treated areas.
- **DO NOT** apply during low-level inversion conditions, including fog.
- **DO NOT** apply to frozen or snow covered soil.
- **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.
- **DO NOT** use spray equipment used to apply **Flumioxazin 51WDG Prime** to apply other materials to any crop foliage, unless the proper cleanout procedures are followed. See "**SPRAYER CLEAN-UP**" for more information.

Precautions:

- When applying by air, observe drift management restrictions and precautions listed under "**AERIAL APPLICATION**".
- Mechanical incorporation into the soil will reduce residual weed control.
- Make post-directed and layby applications of **Flumioxazin 51WDG Prime** only to healthy growing crops.
- 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.
- It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture. **Flumioxazin 51WDG Prime**, 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.

ENVIRONMENTAL CONDITIONS AND BIOLOGICAL PERFORMANCE**Pre-Emergence 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 pre-emergence applications. Treated soil that is splashed onto newly emerged crops may result in temporary crop injury.

Moisture is necessary to activate **Flumioxazin 51WDG Prime** in soil for residual weed control. Dry weather following applications of **Flumioxazin 51WDG Prime** may reduce effectiveness. However, when adequate moisture is received after dry conditions, **Flumioxazin 51WDG Prime** will control susceptible germinating weeds. **Flumioxazin 51WDG Prime** 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 **Flumioxazin 51WDG Prime** application, weed control may be improved by irrigation with at least ¼ inch of water. If emerged weeds are controlled by cultivation, residual weed control will be reduced.

Burndown Application

For best results, apply **Flumioxazin 51WDG Prime** as part of a burndown program to actively growing weeds. Applying **Flumioxazin 51WDG Prime** under conditions that **DO NOT** promote active weed growth will reduce herbicide effectiveness. **DO NOT** apply **Flumioxazin 51WDG Prime** 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. **Flumioxazin 51WDG Prime** 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.

Post-Emergence Application

Flumioxazin 51WDG Prime may only be applied to healthy crops labeled for post-emergence use. **DO NOT** apply **Flumioxazin 51WDG Prime** to crops that have been weakened by disease, drought, flooding, excessive fertilization, soil salts, previously applied pesticides, nematodes, insects or winter injury.

Rainfastness

Flumioxazin 51WDG Prime is rainfast one hour after application. Applications must not be made if rain is expected within one hour of application or post-emergence efficacy may be reduced.

Soil Characteristics

Application of **Flumioxazin 51WDG Prime** 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 Pre-Emergence 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 **Flumioxazin 51WDG Prime** 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").

Pre-Emergence 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 guidelines for pre-emergence 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 guidelines for post-emergence herbicide application. **DO NOT** use flood jet nozzles.

Post-Emergence Application (Emerged Crop)

Check use directions for specific crops in which **Flumioxazin 51WDG Prime** can be applied post-emergence. 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 guidelines for post-emergence herbicide application.

ADDITIVES

Burndown Application (Prior to Crop Emergence)

Post-emergence control of weeds from **Flumioxazin 51WDG Prime** tank mixes will require the addition of an agronomically approved adjuvant to the spray mixture. When an adjuvant is to be used with **Flumioxazin 51WDG Prime**, Prime Source, LLC advises 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 **Flumioxazin 51WDG Prime** as part of a burndown program. Some tank mix partners 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 **Flumioxazin 51WDG Prime**. The addition of a crop oil concentrate or methylated seed oil may increase the burndown activity on certain weeds including cutleaf evening primrose and Carolina geranium. Verify mixing compatibility qualities by 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 Flumioxazin 51WDG Prime

When using **Flumioxazin 51WDG Prime** and an adjuvant, including in stale seed bed, layby, hooded/shielded or reduced tillage situations, perform a jar test before mixing commercial quantities of **Flumioxazin 51WDG Prime**, when using **Flumioxazin 51WDG Prime** 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 1g of **Flumioxazin 51WDG Prime** to the quart jar for every 3 oz. of **Flumioxazin 51WDG Prime** per acre being applied (4g if 12 oz./A is the desired **Flumioxazin 51WDG Prime** 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 non-ionic 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 19g 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. If any of the following conditions are observed the choice of adjuvant must be questioned:
 - Layer of oil or globules on the mixture's surface.
 - Flocculation: fine particles in suspension or as a layer on the bottom of the jar.
 - Clabbering: thickening texture (coagulated) like gelatin.

SPRAYER PREPARATION

Before applying **Flumioxazin 51WDG Prime**, 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 sulfonyleurea and phenoxy herbicides, (i.e., chlorimuron 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 **Flumioxazin 51WDG Prime**. If two or more products were tank mixed prior to **Flumioxazin 51WDG Prime** application, follow the most restrictive clean-up procedure.

MIXING INSTRUCTIONS

1. Fill clean spray tank $\frac{1}{2}$ to $\frac{3}{4}$ 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 **Flumioxazin 51WDG Prime** with water prior to addition to the spray tank. Use a minimum of 1 gal. of water per 10 oz. of **Flumioxazin 51WDG Prime**.
4. While agitating, slowly add the pre-slurried **Flumioxazin 51WDG Prime** to the spray tank. Ensure sufficient agitation to create a rippling or rolling action on the water surface.
5. If tank mixing **Flumioxazin 51WDG Prime** 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 **Flumioxazin 51WDG Prime** within 6 hours of mixing.

SPRAYER CLEAN-UP

Spray equipment, including mixing vessels and nurse tanks, must be cleaned each day following **Flumioxazin 51WDG Prime** application. After **Flumioxazin 51WDG Prime** 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 **Flumioxazin 51WDG Prime** from the spray system, add a tank cleaner 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.

Thoroughly clean all spray equipment, including all tanks, hoses, booms, screens and nozzles, before it is used to apply post-emergence pesticides. Equipment with **Flumioxazin 51WDG Prime** residue remaining in the system may result in crop injury to the subsequently treated crop.

MANDATORY SPRAY DRIFT

Aerial Applications

- **DO NOT** release spray at a height greater than 10 ft above the vegetative canopy, unless a greater application height is necessary for pilot safety.
- For all applications, applicators are required to use a medium or coarser spray droplet size (ASABE S572.1).
- The boom length must not exceed 65% of the wingspan for airplanes or 75% of the rotor blade diameter for helicopters.
- Applicators must use $\frac{1}{2}$ swath displacement upwind at the downwind edge of the field.
- Nozzles must be oriented so the spray is directed toward the back of the aircraft.
- **DO NOT** apply when wind speeds exceed 10 miles per hour at the application site.
- **DO NOT** apply during temperature inversions.

Ground Applications

- Apply with the nozzle height recommended by the manufacturer, but no more than 3 feet above the ground or crop canopy.
- For all applications, applicators are required to use a medium or coarser spray droplet size (ASABE S572.1).

- **DO NOT** apply when wind speeds exceed 10 miles per hour at the application site.
- **DO NOT** apply during temperature inversions.

Boom-less Ground Applications:

- Applicators are required to use a medium or coarser droplet size (ASABE S572.1) for all applications.
- **DO NOT** apply when wind speeds exceed 10 miles per hour at the application site.
- **DO NOT** apply during temperature inversions.

SPRAY DRIFT ADVISORIES

THE APPLICATOR IS RESPONSIBLE FOR AVOIDING OFF-SITE SPRAY DRIFT.
BE AWARE OF NEARBY NON-TARGET SITES AND ENVIRONMENTAL CONDITIONS.

IMPORTANCE OF DROPLET SIZE

An effective way to reduce spray drift is to apply large droplets. Use the largest droplets that provide target pest control. While applying larger droplets will reduce spray drift, the potential for drift will be greater if applications are made improperly or under unfavorable environmental conditions.

Controlling Droplet Size - Ground Boom

- **Volume** - Increasing the spray volume so that larger droplets are produced will reduce spray drift. Use the highest practical spray volume for the application. If a greater spray volume is needed, consider using a nozzle with a higher flow rate.
- **Pressure** - Use the lowest spray pressure recommended for the nozzle to produce the target spray volume and droplet size.
- **Spray Nozzle** - Use a spray nozzle that is designed for the intended application. Consider using nozzles designed to reduce drift.

Controlling Droplet Size - Aircraft

- **Adjust Nozzles** - Follow nozzle manufacturers recommendations for setting up nozzles. Generally, to reduce fine droplets, nozzles should be oriented parallel with the airflow in flight.

BOOM HEIGHT - Ground Boom

Use the lowest boom height that is compatible with the spray nozzles that will provide uniform coverage. For ground equipment, the boom should remain level with the crop and have minimal bounce.

RELEASE HEIGHT - Aircraft

Higher release heights increase the potential for spray drift. When applying aerially to crops, **DO NOT** release spray at a height greater than 10 ft above the crop canopy, unless a greater application height is necessary for pilot safety.

SHIELDED SPRAYERS

Shielding the boom or individual nozzles can reduce spray drift. Consider using shielded sprayers. Verify that the shields are not interfering with the uniform deposition of the spray on the target area.

TEMPERATURE AND HUMIDITY

When making applications in hot and dry conditions, use larger droplets to reduce effects of evaporation.

TEMPERATURE INVERSIONS

Drift potential is high during a temperature inversion. Temperature inversions are characterized by increasing temperature with altitude and are common on nights with limited cloud cover and light to no wind. The presence of an inversion can be indicated by ground fog or by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing. Avoid applications during temperature inversions.

WIND

Drift potential generally increases with wind speed. AVOID APPLICATIONS DURING GUSTY WIND CONDITIONS.
Applicators need to be familiar with local wind patterns and terrain that could affect spray drift.

Boom-less Ground Applications:

- Setting nozzles at the lowest effective height will help to reduce the potential for spray drift.

Handheld Technology Applications:

- Take precautions to minimize spray drift.

APPLICATION EQUIPMENT

Use only application equipment that is clean and in good repair. Uniformly space nozzles on boom and frequently check for accuracy.

BROADCAST APPLICATION

Apply **Flumioxazin 51WDG Prime**, and **Flumioxazin 51WDG Prime** tank mixes, with ground equipment using standard commercial sprayers equipped with flat fan or flood nozzles (pre-emergence applications only) designed to deliver the desired spray pressure and spray volume.

BAND APPLICATION

When banding, use proportionately less water and **Flumioxazin 51WDG Prime** per acre. The rate of **Flumioxazin 51WDG Prime** required per acre, when applied as a banded application, can be calculated with the following formula:

$$\text{Amount Needed per Acre for Banded Application} = \frac{\text{Band Width in Inches}}{\text{Row Width in Inches}} \times \text{Rate per Broadcast Acre}$$

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 restrictions must be observed.

Aerial Application Restrictions:

- **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 **Flumioxazin 51WDG Prime** in 7 to 10 gals. of water per acre. Application at less than 7 gals. per acre may provide inadequate control. When used for pre-emergence weed control, apply **Flumioxazin 51WDG Prime** in 5 to 10 gals. of water per acre. The higher gallonage applications 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, including 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 selection. 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. Refer to the **ONION (DRY BULB)** and **POTATOES** sections of this label for chemigation instructions for these crops.

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 **Flumioxazin 51WDG Prime** applied corresponds to the specified rate.

Apply **Flumioxazin 51WDG Prime** in ½ - ¾ inch 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, contact your State Extension Service Specialist, equipment manufacturers or other experts.

Chemigation Restrictions:

- **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, shall shut the system down and make necessary adjustments if the need arises.
- The system must be free of leaks and clogged nozzles.
- 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.
- Agitation must be maintained in the nurse tank.
- 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.
- The pesticide injection pipeline must contain a functional, automatic, quick closing check valve to prevent the flow of fluid back

toward the injection pump.

- 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.
- 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.
- 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.
- Systems must use a metering pump, including 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.
- **DO NOT** apply when wind speed favors drift beyond the area intended for treatment.

Chemigation Systems Connected to Public Water Systems

- 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.
- Chemigation systems connected to the public water system must contain a functional, reduced pressure zone, backflow preventer (RPZ) or the functional equivalent in the water supply line upstream from the point of pesticide introduction. As an option to the RPZ, discharge the water from the public water system 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.
- All chemigation systems connected to the public water system must also follow restrictions listed in the preceding section titled "**Chemigation Restrictions**".

APPLICATION WITH DRY BULK FERTILIZERS

Dry bulk fertilizer may be impregnated or coated with **Flumioxazin 51WDG Prime**. Application of dry bulk fertilizer with **Flumioxazin 51WDG Prime** provides weed control equal to, or slightly below, the same rate of **Flumioxazin 51WDG Prime** applied in liquid carriers, due to better coverage with application via spray equipment. Follow label directions for **Flumioxazin 51WDG Prime** 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.

Ammonium nitrate and/or limestone must not be used as the sole source of fertilizer, as the **Flumioxazin 51WDG Prime** 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 **Flumioxazin 51WDG Prime** mixture for sale.

Flumioxazin 51WDG Prime must be premixed with water to form a slurry prior to impregnation on dry bulk fertilizer. For best results, use a minimum of 1 pt. of water for each 2 oz. of **Flumioxazin 51WDG Prime**. Use a minimum of 6 pts. of the **Flumioxazin 51WDG Prime** slurry to impregnate 2,000 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 **Flumioxazin 51WDG Prime** required can be calculated with the following formula:

$$\text{Ounces of Flumioxazin 51WDG Prime per Ton of Fertilizer} = \text{Ounces of Flumioxazin 51WDG Prime per Acre} \times 2,000 \div \text{Pounds of Fertilizer per Acre}$$

Thoroughly clean dry fertilizer blending equipment after **Flumioxazin 51WDG Prime** 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 **Flumioxazin 51WDG Prime**. 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 **Flumioxazin 51WDG Prime** 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 Flumioxazin 51WDG Prime.**

Flumioxazin 51WDG Prime Rates (Oz. per Acre)	Crops	Rotation Intervals
1	Cotton (no-till or strip-till only)	14 days*
1.5 to 2	Cotton (no-till or strip-till only)	21 days*
2 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, Tobacco, and Wheat	30 days*

Flumioxazin 51WDG Prime Rates (Oz. per Acre)	Crops	Rotation Intervals
	Barley, Dry and Snap Bean, Flax, Peas, Rye, Safflower, and Sweet Corn	3 months
	Alfalfa, Canola, Clover, Oats, Potato, Sugar Beet, and all other crops not listed ¹	4 months - if soil is tilled prior to planting 8 months - if no tillage is performed
	Lentil	6 months
Up to 3	Peanut, Soybean, Sugarcane, and Sweet Potato	Immediately
	Field Corn (minimum and no-till)	14 days
	Field Corn (conventional tillage) and Sorghum	30 days*
	Cotton, Rice, Sunflower, Tobacco, and Wheat	2 months*
	Barley, Dry and Snap Bean, Flax, Peas, Rye, Safflower, and Sweet Corn	4 months
	Alfalfa, Clover, Oats, Potato, and Sugar Beet	5 months - if soil is tilled prior to planting 10 months - if no tillage is performed
	Canola and all other crops not listed ¹	6 months - if soil is tilled prior to planting 12 months - if no tillage is performed
	Lentil	7 months
Up to 4	Raised beds only: Head and Stem Brassica except Cabbage	2 month - if the top 4" of the beds have been removed
	Sugarcane	Immediately
	Alfalfa, Canola, Potato, Sugar Beet, and all other crops not listed ¹	6 months - if soil is tilled prior to planting 12 months - if not tillage is performed
	Cotton, Field Corn, Peanut, Rice, Sorghum, Soybean, Sunflower, Tobacco, and Wheat	4 months
	Raised beds only: Cabbage, melon, pepper, and tomato ^[3]	2 months - if the top 4" of the beds have been removed
6 to 12	Cotton Field Corn, Peanut, Rice, Sorghum, Soybean, Sunflower, Tobacco, and Wheat	9 months
	Alfalfa, Canola, Sugar Beet, and all other crops not listed ¹ Trees can be transplanted 2 months after application of Flumioxazin 51WDG Prime ²	12 months - if soil is tilled prior to planting 18 months - if no tillage is performed

*At least 1" of rainfall/irrigation must occur between application and planting or crop injury may occur.
¹Successful soil bioassay must be performed prior to planting these crops.
²Transplanted avocado, bushberries (including blueberry), caneberries, citrus fruit, fig, grape, olive, pome fruit, pomegranate, stone fruit, and tree nuts can be planted 2 months after a Flumioxazin 51WDG Prime application of 2 to 12 oz./A.
^[3]Arizona, California, and Hawaii only: For fallow bed application on transplanted cabbage, melon, pepper and tomato beds, refer to directions for use found in this label.]

Table 1. Broadleaf Weeds Controlled by Residual Activity of Flumioxazin 51WDG Prime

Broadleaf Weed Species				
Section A				
Common Name	Scientific Name	Organic Matter	Soil Type	Flumioxazin 51WDG Prime Rate
Carpetweed	<i>Mollugo verticillata</i>	Up to 5%	All Soil Types	2 oz./A
Chickweeds				
Common	<i>Stellaria media</i>			
Mouseear	<i>Cerastium vulgatum</i>			
Dandelion	<i>Taraxacum officinale</i>			
Eclipta	<i>Eclipta prostrata</i>			
Evening Primrose, Cutleaf	<i>Oenothera laciniata</i>			
Field Pennycress ^[3]	<i>Thlaspi arvense</i>			
Florida Pusley	<i>Richardia scabra</i>			
Henbit	<i>Lamium amplexicaule</i>			
Lambsquarters, Common	<i>Chenopodium album</i>			
Little Mallow	<i>Malva parviflora</i>			
Marestail/Horseweed	<i>Conyza canadensis</i>			
Mayweed/False Chamomile	<i>Matricaria maritima</i>			
Nightshades				
Black	<i>Solanum nigrum</i>			
Eastern Black	<i>Solanum ptycanthum</i>			
Hairy	<i>Solanum sarrachoides</i>			
Pigweeds				

Common Name	Scientific Name	Organic Matter	Soil Type	Flumioxazin 51WDG Prime Rate
Redroot	<i>Amaranthus retroflexus</i>			
Smooth	<i>Amaranthus hybridus</i>			
Spiny Amaranth	<i>Amaranthus spinosus</i>			
Tumble	<i>Amaranthus albus</i>			
Prickly Lettuce	<i>Lactuca serriola</i>			
Prickly Sida (Teaweed)	<i>Sida spinosa</i>			
Puncturevine	<i>Tribulus terrestris</i>			
Purslane, Common	<i>Portulaca oleracea</i>			
Radish, Wild	<i>Raphanus raphanistrum</i>			
Redmaids	<i>Calandrinia ciliata</i> var. <i>menziesii</i>			
Shepherd's Purse	<i>Capsella bursa-pastoris</i>			
Smallflower Morningglory	<i>Jacquemontia tamnifolia</i>			
Sowthistle, Prickly ^[3]	<i>Sonchus asper</i>			
Spotted Spurge	<i>Euphorbia maculata</i>			
Venice Mallow	<i>Hibiscus trionum</i>			

SECTION B

All weeds listed in Section A plus:

Common Name	Scientific Name	Organic Matter	Soil Type	Flumioxazin 51WDG Prime Rate*
Coffee Senna	<i>Cassia occidentalis</i>	Up to 3%	All Soil Types	2 oz./A Cotton and Dry Bean
Common Ragweed ¹	<i>Ambrosia artemisiifolia</i>			
False Chamomile ^[3]	<i>Tripleurospermum maritima</i>			
Florida Beggarweed	<i>Desmodium tortuosum</i>			
Golden Crownbeard	<i>Verbesina encelioides</i>			
Hairy Indigo	<i>Indigofera hirsuta</i>			
Hemp Sesbania	<i>Sesbania exaltata</i>	3 to 5%	Coarse and Medium Soils: sandy loam, loamy sand, loamy, silt-loam, silt, sandy clay, sandy clay loam	2 oz./A Cotton and Dry Bean
Jimsonweed	<i>Datura stramonium</i>			
Kochia	<i>Kochia scoparia</i>			
London Rocket ^[3]	<i>Sisymbrium irio</i>			
Morningglory ²				
Entireleaf	<i>Ipomoea hederacea</i> var. <i>integriuscula</i>			
Ivyleaf	<i>Ipomoea hederacea</i>			
Red/Scarlet	<i>Ipomoea coccinea</i>			
Tall	<i>Ipomoea purpurea</i>			
Mustard, Wild	<i>Brassica kaber</i>			
Palmer Amaranth	<i>Amaranthus palmeri</i>			
Spurred Anoda	<i>Anoda cristata</i>		Fine Soils: silty clay, silty clay loam, clay, clay loam	2 oz./A Cotton and Dry Bean
Tropic Croton	<i>Croton glandulosus</i>			
Waterhemp ¹				
Common	<i>Amaranthus rudis</i>			
Tall	<i>Amaranthus tuberculatus</i>			
Wild Poinsettia	<i>Euphorbia heterophylla</i>			
Yellow Rocket ^[3]	<i>Barbarea vulgaris</i>		2 oz./A Field Corn, Peanut, Soybean, and all other labeled crops	

[*Due to differences in crop canopy timing between peanuts and soybeans, use 3 oz./A of **Flumioxazin 51WDG Prime** in peanuts, regardless of soil type and organic matter content, except in the states of North Carolina, Oklahoma, and Virginia (refer to the **PEANUT** section of this label).]
[**Flumioxazin 51WDG Prime** will provide residual control of these weeds at 2 oz./A when applied under a cotton canopy.]

¹A post-emergence herbicide, including lactofen, or glyphosate (Roundup Ready® soybeans only) may be needed following a pre-emergence application of **Flumioxazin 51WDG Prime** to adequately control common ragweed or waterhemp in soybean fields with heavy pressure.

²Morningglory species are not adequately controlled on fine soils or soils with greater than 3% organic matter.

³Not for use in California.]

Table 2. Weeds Suppressed by Residual Activity of Flumioxazin 51WDG Prime

Broadleaf Weed Species				
Common Name	Scientific Name	Organic Matter	Ounces per Acre	
Bristly Starbur	<i>Acanthospermum hispidum</i>	Up to 5%	2 to 3	
Copperleaf, Hophornbeam	<i>Acalypha ostryifolia</i>			
Ragweed, Giant	<i>Ambrosia trifida</i>			
Russian Thistle	<i>Salsola iberica</i>			
Smartweeds				
Ladysthumb	<i>Polygonum persicaria</i>			
Pennsylvania	<i>Polygonum pensylvanicum</i>			
Smellmelon ^[*]	<i>Cucumis melo</i>			
Velvetleaf	<i>Abutilon theophrasti</i>			

Common Name	Scientific Name	Organic Matter	Ounces per Acre
Wild Buckwheat	<i>Polygonum convolvulus</i>	Up to 5%	2 to 3
Wormwood, Biennial	<i>Artemisia biennis</i>		
Grass Weed Species			
Barnyardgrass	<i>Echinochloa crus-galli</i>	Up to 5%	2 to 3
Bluegrass, Annual	<i>Poa annua</i>		
Crabgrass, Large	<i>Digitaria sanguinalis</i>		
Foxtail, Giant	<i>Setaria faberi</i>		
Goosegrass	<i>Eleusine indica</i>		
Lovegrass, California	<i>Eragrostis diffusa</i>		
Panicums			
Fall	<i>Panicum dichotomiflorum</i>		
Texas	<i>Panicum texanum</i>		
Ryegrass, Italian ^[*]	<i>Lolium multiflorum</i>		
Signalgrass, Broadleaf	<i>Brachiaria platyphylla</i>	Up to 5%	1.5 to 3
Cheat	<i>Bromus secalinus</i>		
Downy Brome ^[*]	<i>Bromus tectorum</i>		

[*Not for use in California.]

USE DIRECTIONS

FALL AND SPRING PRE-PLANT BURNDOWN AND FALLOW SEEDBED PROGRAMS IN FIELD CORN, PEANUT, AND SOYBEAN (Pre-Emergence to Crop)

Restrictions:

- **DO NOT** apply to frozen or snow covered soil.
- **DO NOT** apply more than 4 oz. of **Flumioxazin 51WDG Prime** (0.128 lb. a.i.) per acre in a single application.
- **DO NOT** apply more than 4 oz. of **Flumioxazin 51WDG Prime** (0.128 lb. a.i.) per acre per year.
- **DO NOT** make more than 1 fall burndown and fallow seedbed application of **Flumioxazin 51WDG Prime** per year.
- **DO NOT** make more than 1 spring burndown application of **Flumioxazin 51WDG Prime** per year.
- **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. Refer to most restrictive label for minimum interval between application and planting.]

Fall Burndown and Fallow Seedbed Programs - For Use in the States of Arizona, California, and Hawaii Only.

Flumioxazin 51WDG Prime [, 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 Flumioxazin 51WDG Prime**; Table 3, **Weeds Controlled by Fall and Spring Pre-Plant Burndown Programs**; and Table 7, **Weeds Controlled by Residual Activity of Flumioxazin 51WDG Prime**.

If weeds have emerged at the time of application, use **Flumioxazin 51WDG Prime** in combination with a labeled burndown herbicide. **Flumioxazin 51WDG Prime** 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 Burndown and Fallow Seedbed Programs – For Use in All Other States

Flumioxazin 51WDG Prime [, 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 Flumioxazin 51WDG Prime**; Table 3, **Weeds Controlled by Fall and Spring Pre-Plant Burndown Programs**; and Table 7, **Weeds Controlled by Residual Activity of Flumioxazin 51WDG Prime**.

If weeds have emerged at the time of application, use **Flumioxazin 51WDG Prime** in combination with a labeled burndown herbicide. Application must be made no earlier than October 15th in Region 2 or November 15th in Region 1 or when soil temperature falls below 50°F at a 2" depth to maintain residual weed control into the spring (April 1st in Region 1 and May 1st in Region 2) or up until planting, whichever comes first. **Flumioxazin 51WDG Prime** 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

Tank Mixtures

Weeds controlled by post-emergence or residual activity are listed in Table 3. Pre-plant burndown treatment tank mixes and rates are:

Herbicide	Rate
Program 1*	
Flumioxazin 51WDG Prime Plus glyphosate Plus	2 to 3 oz./A
2,4-D (2,4-D for use on pre-plant soybeans only) Plus	0.5 to 1.0 lb. a.i./A
NIS + AMS	0.5% v/v + 17 lbs./100 gals. of water
- OR -	
Program 2*	
Flumioxazin 51WDG Prime Plus glyphosate Plus	2 to 3 oz./A
COC** or NIS + AMS	0.5 to 1.0 lb. a.i./A
	1 pt./A or 0.5% v/v + 17 lbs./100 gals. of water
- OR -	
Program 3*	
Flumioxazin 51WDG Prime Plus	2 to 3 oz./A
2,4-D (2,4-D for use on pre-plant soybeans only) Plus	0.5 to 1.0 a.i./A
COC	1 pt./A
*The labeled rate of Dicamba can be added to Programs 1, 2, & 3 to assist in the control of emerged broadleaves. Refer to dicamba label for rotational restrictions.	
**Crop oil concentrate has been found to increase glyphosate burndown of emerged cutleaf evening primrose and Carolina geranium.	

Table 3. Weeds Controlled by Fall and Spring Pre-Plant Burndown Programs

Weeds Controlled*		Post-Emergence			Residual
Common Name	Scientific Name	Program 1	Program 2	Program 3	
Weeds 3 Inches or Less					
Chamomile, False	<i>Matricaria maritima</i>	Yes	Yes	No	Yes
Cheatgrass	<i>Bromus tectorum</i>	Yes	Yes	No	Yes
Chickweed, Common	<i>Stellaria media</i>	Yes	Yes	No	Yes
Chickweed, Mouseear	<i>Cerastium vulgatum</i>	Yes	Yes	No	Yes
Cockle, White	<i>Silene latifolia</i>	No	Yes	Yes	Yes
Dandelion	<i>Taraxacum officinale</i>	Yes	No	Yes ¹	Yes
Deadnettle, Purple	<i>Lamium purpureum</i>	Yes	Yes	Yes	Yes
Groundsel, Cressleaf	<i>Senecio glabellus</i>	Yes	Yes	-	Yes
Henbit	<i>Lamium amplexicaule</i>	Yes	Yes	Yes	Yes
Kochia	<i>Kochia scoparia</i>	Yes	Yes	Yes	Yes
Marestail/Horseweed	<i>Conyza canadensis</i>	Yes	Yes ²	Yes	Yes
Mallow, Common	<i>Malva neglecta</i>	Yes	Yes	No	Yes
Prickly Lettuce	<i>Lactuca serriola</i>	Yes	Yes	Yes	Yes
Wormwood, Biennial	<i>Artemisia biennis</i>	Yes	Yes	Yes	Yes
Weeds 12 Inches or Less					
Canola, Volunteer	<i>Brassica napus</i>	Yes	Yes	Yes	Yes
Carolina Geranium	<i>Geranium carolinianum</i>	Yes	Yes	Yes	-
Evening Primrose, Cutleaf ³	<i>Oenothera laciniata</i>	Yes	Yes	Yes	Yes
Flixweed	<i>Descurainia Sophia</i>	Yes	Yes	Yes	Yes
Mustard, Tansy	<i>Descurainia pinnata</i>	Yes	Yes	Yes	Yes
Mustard, Wild	<i>Brassica kaber</i>	Yes	Yes	Yes	Yes
Shepherd's Purse	<i>Capsella bursa-pastoris</i>	Yes	Yes	Yes	Yes

*Refer to glyphosate and/or 2,4-D labels for additional weeds controlled and rotational restrictions.

¹Use the labeled rate of 2,4-D LVE for control of emerged dandelion.²Program 2 will not control emerged glyphosate-resistant marestail/horseweed.³Use Program 1 to control cutleaf evening primrose that are nearing 12" in height or are past the rosette stage. Use Programs 2 or 3 to control cutleaf evening primrose that are 12" or less and in the rosette stage.**Spring Burndown Programs**

Flumioxazin 51WDG Prime can be used in combination with labeled pre-plant burndown herbicides to assist in the post-emergence 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 **Flumioxazin 51WDG Prime** 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). **Flumioxazin 51WDG Prime** cannot be applied after planting field corn.

Flumioxazin 51WDG Prime can be used [at 1 to 3 oz./A] with labeled pre-plant burndown herbicides to enhance the speed of burndown and increase weed spectrum.

Flumioxazin 51WDG Prime can be used at [1 to 3 oz./A] [1 to 2 oz./A] in field corn, peanut, and soybean burndown programs. See “FIELD CORN”, “PEANUT”, “SOYBEAN” sections for more information.

FALL AND SPRING BURNDOWN PROGRAMS IN COTTON AND SUGARCANE

Flumioxazin 51WDG Prime can be used [at 1 to 2 oz./A] with labeled burndown herbicides to enhance the speed of burndown and increase weed spectrum. **Flumioxazin 51WDG Prime** can be applied as part of a burndown application to sugarcane until cane emergence.

Restrictions:

- **DO NOT** apply more than 4 oz. of **Flumioxazin 51WDG Prime** (0.0128 lb. a.i.) per acre per single application.
- **DO NOT** apply more than 4 oz. of **Flumioxazin 51WDG Prime** (0.128 lb. a.i.) per acre per year.
- **DO NOT** make more than 1 fall burndown application of **Flumioxazin 51WDG Prime** per year.
- **DO NOT** make more than 1 spring burndown application of **Flumioxazin 51WDG Prime** per year.
- **DO NOT** apply to frozen or snow covered soil.
- **DO NOT** perform any tillage operation after application or residual weed control will be reduced.
- A minimum of 30 days must pass, and 1” of rainfall/irrigation must occur, between **Flumioxazin 51WDG Prime** application and planting of conventionally tilled cotton.
- A minimum of 14 days must pass, and 1” of rainfall/irrigation must occur, between **Flumioxazin 51WDG Prime** application and planting of no-till or strip-till cotton when a **Flumioxazin 51WDG Prime** rate of 1 oz./A is used and 21 days when a **Flumioxazin 51WDG Prime** rate of 1.5 to 2 oz./A is used. The field must contain the stubble from the previous crop.

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

Flumioxazin 51WDG Prime [, 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 **Flumioxazin 51WDG Prime** in combination with a labeled burndown herbicide. Abnormally warm or wet winters will reduce the length of weed control observed in the spring.

Fall Burndown Programs – For use in all other states

Flumioxazin 51WDG Prime [, 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 **Flumioxazin 51WDG Prime** in combination with a labeled burndown herbicide. Application must be made no earlier than October 15th in Region 2 or November 15th in Region 1 or when soil temperature falls below 50°F at a 2” depth to maintain residual weed control into the spring (April 1st in Region 1 and May 1st in Region 2) or up until planting, whichever comes first. **Flumioxazin 51WDG Prime** 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

Flumioxazin 51WDG Prime [, at 1 to 2 oz./A,] can be used in combination with labeled pre-plant burndown herbicides to assist in the post-emergence 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.

FALL AND SPRING BURNDOWN PROGRAMS IN RICE, SORGHUM, SUNFLOWER, TOBACCO, AND WHEAT (Pre-Plant to Crop)

Flumioxazin 51WDG Prime can be used [at 1 to 2 oz./A] with labeled burndown herbicides to enhance the speed of burndown and increase weed spectrum.

Restrictions:

- **DO NOT** apply more than 4 oz. of **Flumioxazin 51WDG Prime** (0.0128 lb. a.i.) per acre per single application.
- **DO NOT** apply more than 4 oz. of **Flumioxazin 51WDG Prime** (0.128 lb. a.i.) per acre per year.
- **DO NOT** make more than 1 fall burndown application of **Flumioxazin 51WDG Prime** per year.
- **DO NOT** make more than 1 spring burndown application of **Flumioxazin 51WDG Prime** per year.
- **DO NOT** apply to frozen or snow covered soil.
- **DO NOT** perform any tillage operation after application or residual weed control will be reduced.

- A minimum of 30 days must pass, and 1" of rainfall/irrigation must occur, between **Flumioxazin 51WDG Prime** application and planting of rice, sorghum, sugarcane, sunflowers, tobacco, or wheat.

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

Flumioxazin 51WDG Prime 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). Abnormally warm winters may reduce the length of weed control observed in the spring.

Fall Burndown Programs – For use in all other states

Flumioxazin 51WDG Prime 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 15th in Region 2 or November 15th in Region 1 or when soil temperature falls below 50°F at a 2" 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

Flumioxazin 51WDG Prime 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 RESTRICTIONS" table.

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

FALL BURNDOWN PROGRAMS IN FIELDS TO BE PLANTED TO BARLEY, FIELD PEAS, FLAX, LENTIL, SAFFLOWER, SUNFLOWER AND SPRING WHEAT (Pre-Plant to Crop)

Restrictions:

- **DO NOT** apply more than 4 oz. of **Flumioxazin 51WDG Prime** (0.0128 lb. a.i.) per acre per single application.
- **DO NOT** apply more than 4 oz. of **Flumioxazin 51WDG Prime** (0.128 lb. a.i.) per acre per year.
- **DO NOT** make more than 1 fall burndown application of **Flumioxazin 51WDG Prime** per year.
- **DO NOT** apply to frozen or snow covered soil.
- **DO NOT** perform any tillage operation after application or residual weed control will be reduced.
- **DO NOT** mix **Flumioxazin 51WDG Prime** with any product containing a label prohibition against such mixing.

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

Flumioxazin 51WDG Prime 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 **Flumioxazin 51WDG Prime** application.

Fall Burndown Programs – For use in all other states

Flumioxazin 51WDG Prime 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 **Flumioxazin 51WDG Prime** application.

Tank Mixtures

Flumioxazin 51WDG Prime can be mixed with 2,4-D and/or glyphosate formulations labeled for burndown programs (pre-plant to crop) in accordance with the most restrictive label limitations and precautions. It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

FALLOW LAND

Restrictions:

- **DO NOT** apply more than 4 oz. of **Flumioxazin 51WDG Prime** (0.0128 lb. a.i.) per acre per single application.
- **DO NOT** apply more than 4 oz. of **Flumioxazin 51WDG Prime** (0.128 lb. a.i.) per acre per year.
- **DO NOT** make more than 1 fall fallow field application of **Flumioxazin 51WDG Prime** per year.
- **DO NOT** make more than 1 spring fallow field application of **Flumioxazin 51WDG Prime** per year.

Flumioxazin 51WDG Prime may be used as a pre-emergence fallow treatment. Weeds controlled by residual activity are listed in Table 1.

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

Flumioxazin 51WDG Prime [, 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 **Flumioxazin 51WDG Prime** in combination with a labeled fallow herbicide. Abnormally warm or wet winters will reduce the length of weed control observed in the spring.

Fallow Land - For Use in All Other States

Flumioxazin 51WDG Prime [, 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 **Flumioxazin 51WDG Prime** in combination with a labeled fallow herbicide. Application must be made no earlier than October 15th in Region 2 or November 15th in Region 1 or when soil temperature falls below 50°F at a 2" depth to maintain residual weed control into the spring (April 1st in Region 1 and May 1st in Region 2). Abnormally warm or wet winters will reduce the length of weed control observed in the spring.

Flumioxazin 51WDG Prime [, 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.

ALFALFA

Restrictions:

- **DO NOT** apply more than 4 oz. of **Flumioxazin 51WDG Prime** (0.128 lb. a.i.) per acre per single application.
- **DO NOT** make more than 2 applications of **Flumioxazin 51WDG Prime** per acre per year.
- **DO NOT** apply more than 8 oz. of **Flumioxazin 51WDG Prime** (0.255 lb. a.i.) per acre per year.
- RTI: **DO NOT** make a sequential **Flumioxazin 51WDG Prime** application within 60 days of the first **Flumioxazin 51WDG Prime** application.
- **DO NOT** apply to alfalfa with greater than 6" of growth. Application will result in burning of treated leaves and stems. **Understand and accept this risk before using Flumioxazin 51WDG Prime on alfalfa.**
- **DO NOT** apply within 25 days of harvest or grazing.
- 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 must be expected and accepted if **Flumioxazin 51WDG Prime** is used with an adjuvant, a tank mix partner formulated as an emulsifiable concentrate (EC) or a tank mix partner formulated with an adjuvant.)
- **DO NOT** use on intended mixed alfalfa-grass stands.
- Application with paraquat can be used to burndown winter annuals prior to winter dormant period.

Timing to Alfalfa

Flumioxazin 51WDG Prime may be applied to established alfalfa with a maximum amount of growth of 6" or less for the pre-emergence control of the weeds listed in Table 7. 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" of growth may result in unacceptable crop injury.

- **For Control of Winter Annual Weeds:** The best timing for pre-emergence 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 pre-emergence control is in the spring prior to alfalfa growth and before 6" of growth.

Timing to Weeds

Pre-Emergence - Pre-Emergence to Weeds

Apply **Flumioxazin 51WDG Prime** before alfalfa growth exceeds 6" in height for the pre-emergence control of weeds listed in Table 7. Make applications as soon as possible after cutting and removing alfalfa to minimize injury to alfalfa growth.

Post-Emergence Dodder Suppression

Apply **Flumioxazin 51WDG Prime** at 4 oz. per acre with an adjuvant for post-emergence suppression of dodder. Tank mixes with imazethapyr, ammonium salt or imazamox will increase control.

ARTICHOKE

Restrictions:

- **DO NOT** apply more than 4 oz./A of **Flumioxazin 51WDG Prime** (0.128 lb. a.i.) per acre per application on annual or perennial artichoke varieties after new planting.
- **DO NOT** apply more than 6 oz./A of **Flumioxazin 51WDG Prime** (0.191 lb. a.i.) per acre per application on perennial artichoke varieties after cutback.
- **DO NOT** make more than 1 application of **Flumioxazin 51WDG Prime** per year.
- **DO NOT** apply more than 6 oz. of **Flumioxazin 51WDG Prime** (0.191 lb. a.i.) per acre per year.
- Application to artichoke foliage may result in unacceptable crop injury.

Timing to Artichoke

- **Annual Varieties: Flumioxazin 51WDG Prime** may be applied to artichoke beds prior to transplanting. Application of **Flumioxazin 51WDG Prime** must be made to the beds no later than 2 days prior to transplanting. Irrigation or rainfall after transplanting is necessary to activate **Flumioxazin 51WDG Prime**. **DO NOT** irrigate the **Flumioxazin 51WDG Prime** 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. Take care to minimize soil disturbance during transplanting, as pre-emergence weed control will decrease as soil disturbance increases.
- **Perennial Varieties: Flumioxazin 51WDG Prime** may be applied to artichokes after planting of crown pieces of “cut back” of mature plants. Applications of **Flumioxazin 51WDG Prime** 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. Application may not be made when artichokes have begun to emerge (cracking).

Timing to Weeds**Pre-Plant (Annual)/Pre-Emergence (Perennial) to Artichokes - Pre-Emergence to Weeds**

Apply **Flumioxazin 51WDG Prime** pre-plant to annual artichokes for pre-emergence control of the weeds. For perennial artichokes apply before cracking for pre-emergence control of weeds. Make application prior to weed emergence. A post-emergence herbicide may be necessary to control emerged weeds. **Flumioxazin 51WDG Prime** may be applied to annual or perennial artichokes as specified above for pre-emergence control of weeds listed in Table 7.

ASPARAGUS

Restrictions:

- **DO NOT** apply more than 6 oz. of **Flumioxazin 51WDG Prime** (0.191 lb. a.i.) per acre during a single application.
- **DO NOT** make more than 1 application of **Flumioxazin 51WDG Prime** per acre per year.
- **DO NOT** apply more than 6 oz. of **Flumioxazin 51WDG Prime** (0.191 lb. a.i.) per acre per year.
- Apply only to dormant asparagus no less than 14 days before spears emerge. Application to non-dormant 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 **Flumioxazin 51WDG Prime** application prior to fern emergence. Treated soil that is splashed onto the ferns may result in spotting.

Timing to Asparagus**Dormant**

Flumioxazin 51WDG Prime may be applied to dormant asparagus for pre-emergence control of the weeds listed in Table 10. Application to non-dormant asparagus will result in unacceptable crop injury. Make applications no less than 2 weeks prior to spear emergence and must be sprinkler or rainfall incorporated with ½ - ¾ inch of water or some scoring may result.

Post-Harvest

Apply **Flumioxazin 51WDG Prime** after the final harvest of the year, but prior to fern emergence, for pre-emergence control of the weeds listed in Table 10. Application after fern emergence will result in unacceptable crop injury. Apply no less than 2 weeks prior to fern emergence and must be sprinkler or rainfall incorporated with ½ - ¾ inch 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, Post-Emergence to Weeds**

Flumioxazin 51WDG Prime may be used for residual weed control, as well as to assist in post-emergence burndown of many annual and perennial weeds where asparagus is dormant. For control of emerged weeds, tank mix **Flumioxazin 51WDG Prime** with paraquat. Refer to paraquat label for specified rate and use directions. To ensure thorough coverage, use a minimum of 15 gals. of spray solution per acre. **Flumioxazin 51WDG Prime** 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, Post-Emergence to Weeds

Use **Flumioxazin 51WDG Prime** for residual weed control and to assist in post-emergence 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.

Pre-Emergence - Dormant Asparagus or After Last Harvest of the Year, Pre-Emergence to Weeds

Apply **Flumioxazin 51WDG Prime** for the pre-emergence control of weeds listed in Table 10.

BRASSICA HEAD AND STEM VEGETABLE CROP GROUP 5-16

Includes: Broccoli; Brussels Sprouts; Cabbage; Cabbage, Chinese, napa; Cauliflower, cultivars, varieties, and/or hybrids of these.

For distribution and use only where third party indemnification is in effect.

ROW MIDDLES**Restrictions:**

- **DO NOT** apply more than 3 oz. of **Flumioxazin 51WDG Prime** (0.096 lb. a.i.) per acre per application. For Cabbage, **DO NOT** apply

more than 4 oz. of **Flumioxazin 51WDG Prime** (0.128 lb. a.i.) per acre per application.

- **DO NOT** make more than 2 applications of **Flumioxazin 51WDG Prime** per acre per year.
- **DO NOT** apply more than 6 oz. of **Flumioxazin 51WDG Prime** (0.191 lb. a.i.) per acre per year. For Cabbage, **DO NOT** apply more than 8 oz. of **Flumioxazin 51WDG Prime** (0.255 lb. a.i.) per acre per year.
- Retreatment Interval (RTI): 7 days
- **DO NOT** apply after crops are transplanted.

Precautions:

- **Flumioxazin 51WDG Prime** can only be applied in row middles between raised plastic mulched beds that are at least 4" higher than the treated row middle and the mulched bed must have a minimum of a 24" bed width.
- Spray must remain between raised beds and contact no more than the bottom 1" of the side of the raised bed.
- All applications must be made with shielded or hooded equipment.
- Efficacy will be reduced if **Flumioxazin 51WDG Prime** is applied to areas of standing water within the row middles.
- Injury can occur if soil particles treated with **Flumioxazin 51WDG Prime** contact the crop.
- Irrigate treated field after application and prior to transplanting with minimum of ¼ inch of water if rainfall does not occur between application and transplanting.

Timing to Crop

Flumioxazin 51WDG Prime may be applied at 3 oz. per acre (except cabbage may be applied at 4 oz./A) as a shielded or hooded application to row middles after plastic is laid up to transplanting or seeding. Transplanting or seeding can take place any time after spray has dried. Spray must be applied to the row middle and contact no more than approximately the bottom 1" 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

Flumioxazin 51WDG Prime provides pre-emergence residual control of the weeds listed in Table 7, as well as to assist in the post-emergence control of emerged weeds. A registered pre-emergence grass herbicide may be added for control of additional grassy weeds. For control of emerged weeds, tank mix **Flumioxazin 51WDG Prime** with paraquat, carfentrazone-ethyl, glyphosate, or other registered burndown herbicide. Refer to tank mix partner label for specified rates and application parameters.

CACTUS (PRICKLY PEAR)

Restrictions:

- **DO NOT** apply more than 12 oz. of **Flumioxazin 51WDG Prime** (0.383 lb. a.i.) per acre per application.
- **DO NOT** make more than 2 applications of **Flumioxazin 51WDG Prime** per acre per year at the 6 oz./A (0.191 lb. a.i.) rate.
- **DO NOT** apply more than 12 oz. of **Flumioxazin 51WDG Prime** (0.383 lb. a.i.) per acre per year.
- Use a maximum **Flumioxazin 51WDG Prime** rate of 6 oz./A (0.191 lb. a.i.) per application on any soil that has a sand plus gravel content over 80% if plants are less than 3 years of age (2 applications of 6 oz./A (0.191 lb. a.i.) 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** mow treated areas. Dust created by mowing may drift onto desirable vegetation resulting in injury.
- **DO NOT** apply within 60 days prior to harvest.
- Retreatment Interval (RTI): 60 days
- **DO NOT** apply to plants established less than 1 year.

Precautions:

- Raise mower height during all mowing to reduce dust. Dust created by mowing can 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.

Apply **Flumioxazin 51WDG Prime** as a uniform broadcast application to the plantation floor or as a uniform band directed at the base of the cactus. The preferred application timing for **Flumioxazin 51WDG Prime** 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.

Pre-Emergence Application

Apply 6 to 12 oz. of **Flumioxazin 51WDG Prime** per broadcast acre as a pre-emergence application. **Flumioxazin 51WDG Prime** applications must be made prior to weed emergence for control of weeds listed in Table 10. Make pre-emergence (to weed emergence) applications of **Flumioxazin 51WDG Prime** to a weed-free soil surface. Pre-emergence application of **Flumioxazin 51WDG Prime** must be completed prior to weed emergence. Moisture is necessary to activate **Flumioxazin 51WDG Prime** on soil for residual weed control. Dry weather following application of **Flumioxazin 51WDG Prime** may reduce effectiveness. However, when adequate moisture is received after dry conditions, **Flumioxazin 51WDG Prime** will control susceptible germinating weeds.

[Post-Emergence Application

Apply 6 to 12 oz. of **Flumioxazin 51WDG Prime** 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 **Flumioxazin 51WDG Prime** activity on emerged weeds. Thorough spray coverage

is necessary to maximize the post-emergence activity of **Flumioxazin 51WDG Prime**.

Refer to Table 13 for weeds controlled by post-emergence activity **Flumioxazin 51WDG Prime** tank mixes. Tank mix **Flumioxazin 51WDG Prime** with a labeled burndown herbicide for control of the emerged weeds.

Residual weed control will be reduced if vegetation prevents the **Flumioxazin 51WDG Prime** from reaching the soil surface. If vegetation is heavy, use a burndown herbicide with **Flumioxazin 51WDG Prime** and make a sequential **Flumioxazin 51WDG Prime** 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 gals. 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 guidelines.

Banded Application

Rates listed in Table 13, refer to a broadcast application covering the entire acre. Refer to the **BAND APPLICATION** table in **PRODUCT INFORMATION** section to calculate amount needed per acre when making a banded application.

CELERY

Flumioxazin 51WDG Prime, when applied according to label use directions, will control the weeds listed in Table 1. This label makes no claims concerning control of other weed species.

Restrictions:

- **DO NOT** apply more than 3 oz. of **Flumioxazin 51WDG Prime** (0.096 lb. a.i.) per acre during a pre-transplant application.
- **DO NOT** apply more than 3 oz. of **Flumioxazin 51WDG Prime** (0.096 lb. a.i.) per acre during a post-transplant application.
- **DO NOT** make more than 1 application of **Flumioxazin 51WDG Prime** per acre per year.
- **DO NOT** apply more than 3 oz. of **Flumioxazin 51WDG Prime** (0.096 lb. a.i.) per acre per year.
- **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.
- In the state of California, use as a pre-transplant application only.

Timing to Celery

Apply **Flumioxazin 51WDG Prime** at 3 oz./A prior to transplanting, or between 3 and 7 days following transplanting, for pre-emergence control of the weeds listed in Table 1.

Timing to Weeds

Use **Flumioxazin 51WDG Prime** prior to weed emergence for residual control.

Tank Mixtures

It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

CLOVER

Restrictions:

- **DO NOT** apply more than 4 oz. of **Flumioxazin 51WDG Prime** (0.128 lb. a.i.) per acre per application.
- **DO NOT** make more than 1 application of **Flumioxazin 51WDG Prime** per acre per year.
- **DO NOT** apply more than 4 oz. of **Flumioxazin 51WDG Prime** (0.128 lb. a.i.) per acre per year.
- **DO NOT** apply within 25 days of harvest or grazing.
- **DO NOT** apply to clover with greater than 6" of growth. Application will result in burning of treated leaves and stems. **Understand and accept this risk before using Flumioxazin 51WDG Prime on alfalfa.**
- **DO NOT** use on intended mixed clover-grass stands.

Precautions:

- Only apply with an adjuvant or tank mix with products formulated as an emulsifiable concentrate "EC" when targeting control of emerged weeds (except and accept crop may be burned and/or stunting when applying tank mixes of **Flumioxazin 51WDG Prime** with an adjuvant).
- Application with paraquat can be used to burndown winter annuals prior to winter dormant period.
- Application to clover with greater than 6" of growth may result in unacceptable crop injury.

Timing to Clover

Flumioxazin 51WDG Prime may be applied to established clover with a maximum amount of growth of 6" or less for the pre-emergence control of the weeds listed in Table 7. Established clover is defined as clover planted in the fall or spring which has gone through a first cutting/mowing.

- **For Control of Winter Annual Weeds:** The best timing for pre-emergence 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 pre-emergence control is in the spring prior to clover growth and before 6" of growth.

Timing to Weeds

Pre-Emergence - Pre-Emergence to Weeds

Apply **Flumioxazin 51WDG Prime** before clover growth exceeds 6" in height for the pre-emergence control of weeds listed in Table 7. Make applications as soon as possible after cutting and removing clover to minimize injury to clover growth.

Post-Emergence Dodder Suppression

Apply **Flumioxazin 51WDG Prime** at 4 oz. per acre with an adjuvant for post-emergence suppression of dodder. Tank mixes with imazethapyr, ammonium salt or imazamox will increase control.

COTTON

Restrictions:

- **DO NOT** apply more than 2 oz. of **Flumioxazin 51WDG Prime** (0.064 lb. a.i.) per acre per application.
- **DO NOT** make more than 2 applications of **Flumioxazin 51WDG Prime** per acre per year.
- **DO NOT** apply more than 4 oz. of **Flumioxazin 51WDG Prime** (0.128 lb. a.i.) per acre per year.
- Retreatment Interval (RTI): **DO NOT** make a sequential **Flumioxazin 51WDG Prime** application within 30 days of the first **Flumioxazin 51WDG Prime** application.
- **DO NOT** apply within 60 days of harvest.

Environmental Conditions and Biological Performance

Hooded, Shielded, and Layby Application

For best results, apply **Flumioxazin 51WDG Prime** to actively growing weeds within the growth stages indicated in this label. Applying **Flumioxazin 51WDG Prime** under conditions that **DO NOT** promote active weed growth will reduce herbicide effectiveness. **DO NOT** apply **Flumioxazin 51WDG Prime** 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. **Flumioxazin 51WDG Prime** is most effective when applied under sunny conditions at temperatures above 65°F.

Flumioxazin 51WDG Prime is rainfast one hour after application. Applications must not be made if rain is expected within one hour of application or post-emergence efficacy may be reduced.

Herbicide Rate

Hooded, Shielded, and Layby Application

For post-emergence weed control, apply **Flumioxazin 51WDG Prime** 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 **Flumioxazin 51WDG Prime**. Weeds that are controlled through residual activity of **Flumioxazin 51WDG Prime** are listed in Table 1. Weeds that are suppressed by residual activity of **Flumioxazin 51WDG Prime** are listed in Table 2.

Table 4. Emerged Broadleaf Weeds Controlled by Hooded, Shielded, and Layby Application of Flumioxazin 51WDG Prime Tank Mixes With Glyphosate or MSMA in Cotton

Broadleaf Weed Species		Weed Height (Inches) 2 Oz./A
Common Name	Scientific Name	
Bindweed, Field*	<i>Convolvulus arvensis</i>	4
Carpetweed	<i>Mollugo verticillata</i>	4
Chickweed, Common	<i>Stellaria media</i>	4
Cocklebur, Common	<i>Xanthium strumarium</i>	4
Florida Beggarweed	<i>Desmodium tortuosum</i>	2
Hemp Sesbania	<i>Sesbania exaltata</i>	6
Jimsonweed	<i>Datura stramonium</i>	4
Lambsquarters, Common	<i>Chenopodium album</i>	4
Morningglory		
Entireleaf	<i>Ipomoea hederacea</i> var. <i>integriuscula</i>	4
Ivyleaf	<i>Ipomoea hederacea</i>	4
Pitted	<i>Ipomoea lacunose</i>	4
Red	<i>Ipomoea coccinea</i>	4
Tall	<i>Ipomoea purpurea</i>	2
Mustard, Wild	<i>Brassica kaber</i>	6
Nightshades		
Black	<i>Solanum nigrum</i>	4
Eastern Black	<i>Solanum ptycanthum</i>	4
Hairy	<i>Solanum sarrachoides</i>	4

Broadleaf Weed Species		Weed Height (Inches) 2 Oz./A
Common Name	Scientific Name	
Pigweeds		
Palmer Amaranth	<i>Amaranthus palmeri</i>	4
Redroot	<i>Amaranthus retroflexus</i>	4
Smooth	<i>Amaranthus hybridus</i>	4
Plantain, Broadleaf	<i>Plantago major</i>	6
Prickly Sida (Teaweed)	<i>Sida spinosa</i>	4
Purslane, Common	<i>Portulaca oleracea</i>	2
Ragweeds		
Common	<i>Ambrosia artemisiifolia</i>	2
Giant	<i>Ambrosia trifida</i>	4
Rice Flatsedge	<i>Cyperus iria</i>	2
Sicklepod	<i>Senna obtusifolia</i>	4
Smartweeds		
Ladysthumb	<i>Polygonum persicaria</i>	4
Pale	<i>Polygonum lapathifolium</i>	4
Pennsylvania	<i>Polygonum pennsylvanicum</i>	4
Spotted Spurge	<i>Euphorbia maculata</i>	4
Velvetleaf	<i>Abutilon theophrasti</i>	4
Venice Mallow	<i>Hibiscus trionum</i>	2
Waterhemp		
Common	<i>Amaranthus rudis</i>	2
Tall	<i>Amaranthus tuberculatus</i>	2
*Flumioxazin 51WDG Prime 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 guidelines 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 **Flumioxazin 51WDG Prime** 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 **Flumioxazin 51WDG Prime** tank mixes, with ground equipment using standard commercial sprayers equipped with nozzles designed to deliver the desired spray pressure and spray volume. Use only application equipment that is clean and in good repair. Nozzles must meet manufacturer's guidelines for spray pattern and placement on spray boom and must be checked frequently for accuracy.

Timing to Cotton

Hooded and Shielded Application

Flumioxazin 51WDG Prime tank mixes may be applied with a hooded or shielded sprayer after cotton has reached a minimum of 6" 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 **Flumioxazin 51WDG Prime** tank mixes may be made once cotton has reached a minimum of 16" in height. Cotton that is smaller than 16" in height may be injured by **Flumioxazin 51WDG Prime** applications. **Flumioxazin 51WDG Prime** application must be directed to the lower 2" of the cotton stem to avoid crop injury.

Timing to Weeds

Flumioxazin 51WDG Prime tank mix application must be made to weeds within the height range given in Table 4.

Tank Mixtures

Flumioxazin 51WDG Prime must be tank mixed with one of the herbicides listed in Table 5 for post-emergence control of the weeds listed in Table 4. It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

Table 5. Tank Mixes with Flumioxazin 51WDG Prime for Hooded, Shielded and/or Layby Use in Cotton

Tank Mix Partner	Target Weeds	Hooded and Shielded	Layby
glyphosate	Perennial Grasses and Broadleaves	X	X*
MSMA	Annual Grasses Yellow Nutsedge	X	X

*For use only in cotton with the Roundup Ready gene.

CUCURBIT VEGETABLES

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); and watermelon

Flumioxazin 51WDG Prime, when applied according to label use directions, will control the weeds listed in Table 7. This label makes no claims concerning control of other weed species.

For distribution and use only where third party indemnification is in effect.

ROW MIDDLES

Restrictions:

- **DO NOT** apply more than 4 oz. of **Flumioxazin 51WDG Prime** (0.128 lb. a.i.) per acre per application.
- **DO NOT** make more than 2 applications of **Flumioxazin 51WDG Prime** per acre per year.
- **DO NOT** apply more than 8 oz. of **Flumioxazin 51WDG Prime** (0.255 lb. a.i.) per acre per year.
- Retreatment Interval (RTI): 21 days
- **DO NOT** use with an adjuvant.
- **DO NOT** apply during or after bloom.

Precautions:

- Grow plants on raised plastic mulched beds that are higher than the treated row middle.
- Drift of treated soil particles onto plants may cause contact injury.
- 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 **Flumioxazin 51WDG Prime** residues.
- All applications must be made with hooded or shielded equipment.
- Irrigate treated field after application and prior to transplanting with minimum of ¼ inch of water if rainfall does not occur between application and transplanting.
- 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 this product. On occasion, this has resulting in a delay in maturity.

Timing to Cucurbit Vegetables

Apply **Flumioxazin 51WDG Prime** at 4 oz. per acre as a hooded or shielded application to row middles up to 14 days prior to transplanting or seeding for pre-emergence control of the weeds listed in Table 7, as well as to assist in the post-emergence control of emerged weeds. A second application of **Flumioxazin 51WDG Prime** at 4 oz. per acre may be applied up to 21 days after transplanting or emergence if needed.

Timing to Weeds

Flumioxazin 51WDG Prime may be used for residual weed control, as well as to assist in post-emergence burndown of many annual and perennial weeds in row middles. A registered pre-emergence grass herbicide may be added for control of additional grassy weeds. For assisting in the control of emerged weeds, tank mix **Flumioxazin 51WDG Prime** with paraquat, carfentrazone-ethyl or other registered burndown herbicide. **DO NOT** tank mix with glyphosate after transplanting. Refer to tank mix partner's label for specified rate and use directions.

Tank Mixtures

It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

TRANSPLANTED MELON, PEPPER, AND TOMATO BEDS

Restrictions:

- **DO NOT** apply more than 4 oz. of **Flumioxazin 51WDG Prime** (0.128 lb. a.i.) per acre per application.
- **DO NOT** make more than 2 applications of **Flumioxazin 51WDG Prime** per acre per year.
- **DO NOT** apply more than 8 oz. of **Flumioxazin 51WDG Prime** (0.255 lb. a.i.) per acre per year.
- Retreatment Interval (RTI): 60 days

Precaution:

- 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 **Flumioxazin 51WDG Prime**. On occasion this has resulted in a delay in maturity.

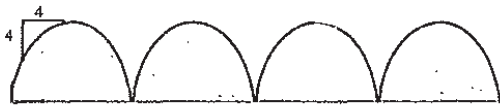
Timing to Crop**Flumioxazin 51WDG Prime Fallowbed Use Prior to Transplanting**

Flumioxazin 51WDG Prime Rates	Adjuvant	GPA	Transplanting Interval
4 oz./A	Required by burndown tank mix partner	Ground - 20 to 40	2 Months

Application Method: Apply with a burndown herbicide labeled for the control of emerged weeds. **Flumioxazin 51WDG Prime**, when used alone, will not provide satisfactory control of emerged weeds.

Restrictions - Pre-Emergence Fallowbed Weed Control Prior to Transplanting:

- Always read and follow all label directions when using any pesticide alone or in tank mix combinations.
- The top 4" of the bed, from a horizontal and vertical perspective, where the crop will be transplanted, must be removed prior to transplanting.
- Irrigate treated field after application and prior to transplanting with minimum of ¼ inch of water if rainfall does not occur between application and transplanting.
- Use only healthy transplants. **DO NOT** use on direct seeded crops.
- [On flat beds (tomato only), the soil must be incorporated to a depth of at least 4", twice, prior to transplanting. Failure to incorporate may result in stand reduction and/or crop injury.]
- This use pattern makes no claim for in-season weed control after the beds have been disturbed.



Beds are formed and **Flumioxazin 51WDG Prime** is applied with a burndown herbicide.



A minimum of 2 months after **Flumioxazin 51WDG Prime** 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.

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 (garbanzo bean); guar; lablab bean and lentil

WEED SUPPRESSION IN DRY BEANS AND WEED CONTROL IN CHICKPEAS (GARBANZO BEAN)**Restrictions:**

- For chickpeas, **DO NOT** apply more than 2 oz. of **Flumioxazin 51WDG Prime** (0.064 lb. a.i.) per acre per application.
- For all other dry beans, **DO NOT** apply more than 1.5 oz. of **Flumioxazin 51WDG Prime** (0.048 lb. a.i.) per acre per application.
- **DO NOT** make more than 1 application of **Flumioxazin 51WDG Prime** per acre per year.
- For chickpeas, **DO NOT** apply more than 2 oz. of **Flumioxazin 51WDG Prime** (0.064 lb. a.i.) per acre per year.
- For all other dry beans, **DO NOT** apply more than 1.5 oz. of **Flumioxazin 51WDG Prime** (0.048 lb. a.i.) per acre per year.

Precaution:

- 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 **Flumioxazin 51WDG Prime**. On occasion this has resulted in a delay in maturity.

Timing to Dry Beans and Chickpeas

Flumioxazin 51WDG Prime may be applied to dry beans within 2 days after planting for the pre-emergence suppression of the weeds listed in Table 1, **Broadleaf Weeds Controlled by Residual Activity of Flumioxazin 51WDG Prime** or Table 8, **Weeds Suppressed by Residual Activity of Flumioxazin 51WDG Prime**. **Flumioxazin 51WDG Prime** may be tank mixed with other labeled herbicides for broad-spectrum weed control.

Timing to Weeds

Flumioxazin 51WDG Prime may be applied to dry beans prior to planting or pre-emergence (after planting). Pre-emergence application of **Flumioxazin 51WDG Prime** must be made within 2 days after planting and prior to dry bean emergence. To avoid severe crop injury, **DO NOT** apply to dry beans after beans begin to crack or have emerged.

Pre-plant incorporation (PPI) applications may result in reduced weed control.

Additional Residual Grass Control

Flumioxazin 51WDG Prime can be tank mixed with pendimethalin for additional grass control. It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

HARVEST AID**Restrictions:**

- **DO NOT** apply more than 3 oz. of **Flumioxazin 51WDG Prime** (0.096 lb. a.i.) per acre per application.
- **DO NOT** make more than 1 application of **Flumioxazin 51WDG Prime** per acre per year.
- **DO NOT** apply more than 3 oz. of **Flumioxazin 51WDG Prime** (0.096 lb. a.i.) per acre per year.
- **DO NOT** harvest within 5 days of application.

Desiccation from **Flumioxazin 51WDG Prime** 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 **Flumioxazin 51WDG Prime** 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 and Chickpeas

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 gals. spray solution per acre. Nozzle selection must meet manufacturer's gallonage and pressure guidelines for post-emergence application.

FIELD CORN

Restrictions:

- **DO NOT** apply more than 3 oz. of **Flumioxazin 51WDG Prime** (0.096 lb. a.i.) per acre per application.
- **DO NOT** make more than 1 application of **Flumioxazin 51WDG Prime** per acre per year.
- **DO NOT** apply more than 3 oz. of **Flumioxazin 51WDG Prime** (0.096 lb. a.i.) per acre per year.
- **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

- 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 ¼ inch of rainfall has occurred between application and planting.
- Apply **Flumioxazin 51WDG Prime**, at 2 to 3 oz./A, between 7 and 30 days prior to planting field corn for the pre-emergence control of the weeds listed in Table 1.
- Apply **Flumioxazin 51WDG Prime** 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 ¼ inch of rainfall has occurred between application and planting.
- Apply **Flumioxazin 51WDG Prime** at 3 oz./A between 14 and 30 days prior to planting field corn.

Burndown Use Directions - For Pre-Plant Applications in Field Corn

Flumioxazin 51WDG Prime, applied as part of a burndown program, may be used for residual weed control, as well as to assist in post-emergence 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 Pre-Plant Burndown and Fallow Seedbed Programs in Field Corn, Peanut and Soybean** for rates and timing of applications. For control of emerged weeds, **Flumioxazin 51WDG Prime** must be applied with an appropriate burndown tank mix partner listed in Table 6. To ensure thorough coverage, use a minimum of 15 gals. of spray solution per acre. Refer to tank mix partner's label for application pressures and adjuvant systems.

Increasing Speed of Glyphosate Burndown Activity

Flumioxazin 51WDG Prime, at 1 oz./A, may be tank mixed with glyphosate 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 **Flumioxazin 51WDG Prime** rates as low as 1 oz./A. Applications of **Flumioxazin 51WDG Prime** at 1 oz./A must be made a minimum of 14 days prior to planting field corn.

Tank Mixtures

Flumioxazin 51WDG Prime 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 directions. It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank

mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

Tank Mix Restriction:

- Tank mixes with flufenacet, metolachlor or s-metolachlor, dimethenamid or dimethenamid-p, alachlor, or acetochlor may result in injury to field corn when application is followed by prolonged periods of cool wet weather and must not be used with **Flumioxazin 51WDG Prime**.

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

Tank Mix Partners*	
2,4-D ethylhexyl ester	metribuzin
atrazine	paraquat
thifensulfuron + rimsulfuron	flumetsulam
dicamba	rimsulfuron
tribenuron-methyl	simazine
glyphosate	dicamba dimethylamine salt + 2,4-D dimethylamine salt
clopyralid + flumetsulam	

*Refer to tank mix product labels for specific directions.

FIELD PEAS

WEED CONTROL

Restrictions:

- **DO NOT** apply more than 2 oz. of **Flumioxazin 51WDG Prime** (0.064 lb. a.i.) per acre per application.
- **DO NOT** make more than 1 application of **Flumioxazin 51WDG Prime** per acre per year.
- **DO NOT** apply more than 2 oz. of **Flumioxazin 51WDG Prime** (0.064 lb. a.i.) per acre per year.

Precaution:

- Many weather-related factors, including high wind, splashing or heavy rains or cool conditions at or near crop emergence, may result in peas injury in fields treated with **Flumioxazin 51WDG Prime**. On occasion this has resulted in a delay in maturity.

Timing to Field Peas

Flumioxazin 51WDG Prime may be applied to field peas within 2 days after planting for the pre-emergence control of the weeds listed in Table 1, **Broadleaf Weeds Controlled by Residual Activity of Flumioxazin 51WDG Prime** or Table 8, **Weeds Suppressed by Residual Activity of Flumioxazin 51WDG Prime**. Tank mix **Flumioxazin 51WDG Prime** with other labeled herbicides for broad-spectrum weed control.

Timing to Weeds

Flumioxazin 51WDG Prime may be applied to field peas prior to planting or pre-emergence (after planting). Pre-emergence application of **Flumioxazin 51WDG Prime** must be made within 2 days after planting and prior to field peas emergence. To avoid severe crop injury, **DO NOT** apply to field peas after peas begin to crack or have emerged.

Pre-plant incorporation (PPI) applications may result in reduced weed control.

Additional Residual Grass Control

Flumioxazin 51WDG Prime can be tank mixed with pendimethalin for additional grass control. It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

HARVEST AID

Restrictions:

- **DO NOT** apply more than 3 oz. of **Flumioxazin 51WDG Prime** (0.096 lb. a.i.) per acre per application.
- **DO NOT** make more than 1 application of **Flumioxazin 51WDG Prime** per acre per year.
- **DO NOT** apply more than 3 oz. of **Flumioxazin 51WDG Prime** (0.096 lb. a.i.) per acre per year.
- **DO NOT** harvest within 5 days of application.

Desiccation from **Flumioxazin 51WDG Prime** 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 **Flumioxazin 51WDG Prime** with glyphosate will increase control of emerged weeds and aid in harvest.

Timing to Field Peas

Apply **Flumioxazin 51WDG Prime**, 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 **Flumioxazin 51WDG Prime** 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 gals. of spray solution per acre and select nozzle type using manufacturer's gallonage and pressure guidelines for post-emergence application.

FLAX

HARVEST AID

Restrictions:

- **DO NOT** apply more than 3 oz. of **Flumioxazin 51WDG Prime** (0.096 lb. a.i.) per acre per application.
- **DO NOT** make more than 1 application of **Flumioxazin 51WDG Prime** per acre per year at the 3 oz. (0.096 lb. a.i.) rate.
- **DO NOT** make more than 2 applications of **Flumioxazin 51WDG Prime** per acre per year at the 1.5 oz. (0.048 lb. a.i.) rate.
- **DO NOT** apply more than 3 oz. of **Flumioxazin 51WDG Prime** (0.096 lb. a.i.) per acre per year.
- Retreatment Interval (RTI): 7 days
- **DO NOT** harvest within 5 days of application.

Desiccation from **Flumioxazin 51WDG Prime** 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.

Timing to Flax

Apply **Flumioxazin 51WDG Prime**, 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 gals. of spray solution per acre and select nozzle type using manufacturer's gallonage and pressure guidelines for post-emergence application.

FRUITING VEGETABLES

Includes: African eggplant; Bush Tomato; Bell Pepper; Cocona; Currant Tomato; Eggplant, Garden; Huckleberry; Goji Berry; Groundcherry, Martynia; Naranilla; Okra, Pea Eggplant; Pepino; Non-Bell Pepper; Roselle; Scarlet Eggplant; Sunberry; Tomatillo; Tomato; Tree Tomato; cultivars, varieties and/or hybrids of these.

For distribution and use only where third party indemnification is in effect.

ROW MIDDLES

Restrictions:

- **DO NOT** apply more than 4 oz. of **Flumioxazin 51WDG Prime** (0.128 lb. a.i.) per acre per application.
- **DO NOT** make more than 2 applications of **Flumioxazin 51WDG Prime** per acre per year.
- **DO NOT** apply more than 8 oz. of **Flumioxazin 51WDG Prime** (0.255 lb. a.i.) per acre per year.
- Retreatment Interval (RTI): 21 days

Precautions:

- 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 this product. On occasion this has resulting in a delay in maturity.
- Grow plants on raised or plastic mulched beds that are higher than the treated row middle.
- 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 even of ½ inch (natural or irrigation) must occur prior to transplanting to reduce **Flumioxazin 51WDG Prime** residues.
- Injury can occur if soil particles treated with this product contact the crop.
- Irrigate treated fields after application and prior to transplanting with minimum of ¼ 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 **Flumioxazin 51WDG Prime** at 4 oz. per acre as a hooded or shielded application to row middles up to 14 days prior to transplanting or seeding for pre-emergence control of the weeds listed in Table 7, as well as to assist in the post-emergence control of emerged weeds. A second application of **Flumioxazin 51WDG Prime** 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

Flumioxazin 51WDG Prime may be used for residual weed control, as well as to assist in post-emergence burndown of many annual and perennial weeds in row middles. A registered pre-emergence grass herbicide may be added for control of additional grassy weeds. For assisting in the control of emerged weeds, tank mix **Flumioxazin 51WDG Prime** with paraquat, carfentrazone-ethyl 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 use directions. It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

GARLIC

Restrictions:

- **DO NOT** apply more than 6 oz. of **Flumioxazin 51WDG Prime** (0.191 lb. a.i.) per acre per application.
- **DO NOT** make more than 1 application of **Flumioxazin 51WDG Prime** per acre per year.
- **DO NOT** apply more than 6 oz. of **Flumioxazin 51WDG Prime** (0.191 lb. a.i.) per acre per year.

Timing to Garlic

Flumioxazin 51WDG Prime may be applied, at 6 oz./A, to garlic prior to garlic emergence. Apply within 3 days after planting garlic.

Timing to Weeds**Pre-Emergence - Pre-Emergence to Weeds**

Apply **Flumioxazin 51WDG Prime** to weed free garlic for pre-emergence control of the weeds listed in Table 10.

HOPS

Not For Use in California or New York.

Flumioxazin 51WDG Prime can be used in hops for pre-emergence weed control as well as sucker control. **Flumioxazin 51WDG Prime**, when applied according to label use directions, will control the weeds listed in Table 10. This label makes no claims concerning control of other weed species.

Restrictions:

- **DO NOT** apply more than 6 oz. of **Flumioxazin 51WDG Prime** (0.191 lb. a.i.) per acre per application.
- **DO NOT** make more than 1 application of **Flumioxazin 51WDG Prime** per acre per year.
- **DO NOT** apply more than 6 oz. of **Flumioxazin 51WDG Prime** (0.191 lb. a.i.) per acre per year.
- **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.

Timing to Hops**Sucker Control**

Apply **Flumioxazin 51WDG Prime** at 6 oz./A as a directed application after hops have reached a minimum of 6 ft. in height for sucker control. Direct application to the lower 2 ft. of the hops.

Pre-Emergence Weed Control

Apply **Flumioxazin 51WDG Prime** at 6 oz./A as a 1 to 1.5 ft. 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 **Flumioxazin 51WDG Prime** with a labeled burndown herbicide including 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

Flumioxazin 51WDG Prime applications must be made prior to weed emergence for control of weeds listed in Table 10.

Tank Mixtures

It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

LENTILS

HARVEST AID**Restrictions:**

- **DO NOT** apply more than 3 oz. of **Flumioxazin 51WDG Prime** (0.096 lb. a.i.) per acre per application.
- **DO NOT** make more than 1 application of **Flumioxazin 51WDG Prime** per acre per year.
- **DO NOT** apply more than 3 oz. of **Flumioxazin 51WDG Prime** (0.096 lb. a.i.) per acre per year.
- **DO NOT** harvest within 5 days of application.

Desiccation from **Flumioxazin 51WDG Prime** 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 **Flumioxazin 51WDG Prime** with glyphosate or paraquat will increase control of emerged weeds and aid in harvest. It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

Timing to Lentils

Apply **Flumioxazin 51WDG Prime**, 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 too early, a reduction in seed quality may occur. **DO NOT** spray **Flumioxazin 51WDG Prime** 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 gals. of spray solution per acre and select nozzle type using manufacturer's gallonage and pressure guidelines for post-emergence application.

MINT (Peppermint and Spearmint)

Restrictions:

- **DO NOT** apply more than 4 oz. of **Flumioxazin 51WDG Prime** (0.128 lb. a.i.) per acre per application.
- **DO NOT** make more than 2 applications of **Flumioxazin 51WDG Prime** per acre per year.
- **DO NOT** apply more than 8 oz. of **Flumioxazin 51WDG Prime** (0.255 lb. a.i.) per acre per year.
- Retreatment Interval (RTI): **DO NOT** make a sequential **Flumioxazin 51WDG Prime** application within 60 days of the first **Flumioxazin 51WDG Prime** 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.

Precautions:

- 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 **Flumioxazin 51WDG Prime**.

To avoid crop injury:

- Application to stands established longer than 3 years may result in crop injury.
- Application to stands with weak, thin or damaged roots or rhizomes may result in crop injury.
- Application to mint in Southern Union County (south of Ladd Canyon) or Baker County in Oregon may result in unacceptable crop injury.
- Use only on established meadow mint.
- Applications 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 may result in severe injury. Apply only to healthy vigorous mint with undamaged rhizomes.

Timing to Mint

As a spray, **Flumioxazin 51WDG Prime** may be applied only to established, dormant mint for pre-emergence control of the weeds listed in Table 7, as well as to assist in the post-emergence 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, **Flumioxazin 51WDG Prime** 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, Post-Emergence To Weeds

Flumioxazin 51WDG Prime may be used for residual weed control, as well as to assist in post-emergence burndown of many annual and perennial weeds where established mint is dormant. For control of emerged weeds, tank mix **Flumioxazin 51WDG Prime** with paraquat. Refer to paraquat label for specified rate and use directions. To ensure thorough coverage, use a minimum of 15 gals. of spray solution per acre. **Flumioxazin 51WDG Prime** 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.

Pre-Emergence - Dormant Mint, Pre-Emergence To Weeds

Apply **Flumioxazin 51WDG Prime** to dormant mint for the pre-emergence control of weeds listed in Table 7. Fall application of **Flumioxazin 51WDG Prime**, 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 **Flumioxazin 51WDG Prime** application will result in less effective pre-emergence activity. In furrow irrigated fields, corrugating that is done after a **Flumioxazin 51WDG Prime** application will expose untreated soil and break the herbicide barrier resulting in poor weed control.

Tank Mixtures

Tank mixes with labeled rates of paraquat are advised to control emerged weeds and increase crop safety. It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

Table 7. Weeds Controlled by Residual Activity of Flumioxazin 51WDG Prime

Broadleaf Weed Species				
Common Name	Scientific Name	Organic Matter	Soil Type	Flumioxazin 51WDG Prime Rate
Bristly Starbur	<i>Acanthospermum hispidum</i>	Up to 5%	All Soil Types	4 oz./A
Carpetweed	<i>Mollugo verticillata</i>			
Chickweeds				
Common	<i>Stellaria media</i>			
Mouseear	<i>Cerastium vulgatum</i>			
Coffee Senna	<i>Cassia occidentalis</i>			
Copperleaf, Hophornbeam	<i>Acalypha ostryifolia</i>			
Dandelion	<i>Taraxacum officinale</i>			
Dodder (Suppression Only)* ⁽¹⁾	<i>Cuscuta</i> spp.			
Eclipta	<i>Eclipta prostrata</i>			
Evening primrose, Cutleaf	<i>Oenothera laciniata</i>			
False Chamomile ⁽¹⁾	<i>Tripleurospermum maritima</i>			
Fiddleneck, Coast ⁽¹⁾	<i>Amsinckia menziesii</i>			
Field Pennycress ⁽¹⁾	<i>Thlaspi arvense</i>			
Fleabane, Hairy ⁽¹⁾	<i>Conyza bonariensis</i>			
Flixweed ⁽¹⁾	<i>Descurainia sophia</i>			
Florida Beggarweed	<i>Desmodium tortuosum</i>			
Florida Pusley	<i>Richardia scabra</i>			
Golden Crownbeard	<i>Verbesina encelioides</i>			
Groundsel, Common	<i>Senecio vulgaris</i>			
Hairy Indigo	<i>Indigofera hirsuta</i>			
Hemp Sesbania	<i>Sesbania exaltata</i>			
Henbit	<i>Lamium amplexicaule</i>			
Jimsonweed	<i>Datura stramonium</i>			
Kochia	<i>Kochia scoparia</i>			
Lambsquarters, Common	<i>Chenopodium album</i>			
Little Mallow	<i>Malva parviflora</i>			
London Rocket ⁽¹⁾	<i>Sisymbrium irio</i>			
Marestail/Horseweed	<i>Conyza Canadensis</i>			
Mayweed/False Chamomile ⁽¹⁾	<i>Matricaria maritima</i>			
Morningglory				
Entireleaf	<i>Ipomoea hederacea</i> var. <i>integriuscula</i>			
Ivyleaf	<i>Ipomoea hederacea</i>			
Red/Scarlet	<i>Ipomoea coccinea</i>			
Smallflower	<i>Jacquemontia tamnifolia</i>			
Tall	<i>Ipomoea purpurea</i>			
Mustard				
Tansy ⁽¹⁾	<i>Descurainia pinnata</i>			
Tumble ⁽¹⁾	<i>Sisymbrium altissimum</i>			
Wild	<i>Brassica kaber</i>			
Nettle, Burning ⁽¹⁾	<i>Urtica urens</i>			
Nightshades				
Black	<i>Solanum nigrum</i>			
Eastern Black	<i>Solanum ptycanthum</i>			
Hairy	<i>Solanum sarrachoides</i>			
Pigweeds				
Palmer Amaranth	<i>Amaranthus palmeri</i>			
Redroot	<i>Amaranthus retroflexus</i>			
Smooth	<i>Amaranthus hybridus</i>			
Spiny Amaranth	<i>Amaranthus spinosus</i>			
Tumble	<i>Amaranthus albus</i>			
Prickly Lettuce (China Lettuce)	<i>Lactuca serriola</i>			
Prickly Sida (Teaweed)	<i>Sida spinosa</i>			
Sowthistle, Prickly ⁽¹⁾	<i>Sonchus asper</i>			
Puncturevine	<i>Tribulus terrestris</i>			
Purslane				
Common	<i>Portulaca oleracea</i>			
Horse ⁽¹⁾	<i>Trianthema portulacastrum</i>			
Radish, Wild	<i>Raphanus raphanistrum</i>			
Ragweed, Common	<i>Ambrosia artemisiifolia</i>			
Redmaids	<i>Calandrinia ciliata</i> var. <i>menziesii</i>			
Russian Thistle	<i>Salsola iberica</i>			
Shepherd's Purse	<i>Capsella bursa-pastoris</i>			

Broadleaf Weed Species				
Common Name	Scientific Name	Organic Matter	Soil Type	Flumioxazin 51WDG Prime Rate
Smartweeds				
Ladysthumb	<i>Polygonum persicaria</i>			
Pennsylvania	<i>Polygonum pensylvanicum</i>			
Smellmelon ^[1]	<i>Cucumis melo</i>			
Spotted Spurge	<i>Euphorbia maculata</i>			
Spurred Anoda	<i>Anoda cristata</i>			
Tropic Croton	<i>Croton glandulosus</i>			
Velvetleaf	<i>Abutilon theophrasti</i>			
Venice Mallow	<i>Hibiscus trionum</i>			
Waterhemp				
Common	<i>Amaranthus rudis</i>			
Tall	<i>Amaranthus tuberculatus</i>			
White Cockle ^[1]	<i>Silene latifolia</i>			
Wild Poinsettia	<i>Euphorbia heterophylla</i>			
Wormwood, Biennial	<i>Artemisia biennis</i>			
Yellow Rocket ^[1]	<i>Barbarea vulgaris</i>			
Grass Weed Species				
Barnyardgrass	<i>Echinochloa crus-galli</i>	Up to 5%	All Soil Types	4 oz./A
Bluegrass, Annual	<i>Poa annua</i>			
Crabgrass, Large	<i>Digitaria sanguinalis</i>			
Foxtail, Giant	<i>Setaria faberi</i>			
Goosegrass	<i>Eleusine indica</i>			
Lovegrass, California	<i>Eragrostis diffusa</i>			
Panicums				
Fall	<i>Panicum dichotomiflorum</i>			
Texas	<i>Panicum texanum</i>			
Ryegrass, Italian ^[1]	<i>Lolium multiflorum</i>			
Signalgrass, Broadleaf	<i>Brachiaria platyphylla</i>			
*Flumioxazin 51WDG Prime at 4 oz./A will provide post-emergence dodder suppression when applied in combination with imazethapyr, ammonium salt or imazamox at labeled rates. The use of imazethapyr, ammonium salt, and imazamox require the use of a NIS, which will result in burn and stunting of alfalfa. Growers must expect and accept this prior to using this tank mix.				
[¹ Not for use in California.]				

ONION (DRY BULB)

Restrictions:

- **DO NOT** apply more than 2 oz. of **Flumioxazin 51WDG Prime** (0.064 lb. a.i.) per acre per application.
- **DO NOT** make more than 6 applications of **Flumioxazin 51WDG Prime** per acre per year at the 0.5 oz. (0.016 lb. a.i.) rate.
- **DO NOT** apply more than 3 oz. of **Flumioxazin 51WDG Prime** (0.096 lb. a.i.) per acre per year.
- Retreatment Interval (RTI): **DO NOT** make sequential application within 14 days [(7 days for micro-rate application)].
- **DO NOT** apply more than 1 oz. of **Flumioxazin 51WDG Prime** (0.032 lb. a.i.) per year on soils that contain greater than 90% sand plus gravel.
- **DO NOT** apply as part of a tank mix, other than with pendimethalin, or unacceptable injury may result. Other formulations of pendimethalin must not be tank mixed with **Flumioxazin 51WDG Prime** for use in onions.
- **DO NOT** apply with any type of adjuvant.
- **DO NOT** apply within 45 days of harvest.

Use of **Flumioxazin 51WDG Prime** may result in necrotic spotting of onion leaves that come in contact with the spray.

[Micro-Rate Application]

[Sequential applications of **Flumioxazin 51WDG Prime** may be applied to onions (dry bulb), between the 2- and 6-leaf stage, at rates of 0.5 to 1 oz./A, on a 7 day interval.]

Timing to Onions (Dry Bulb)

Apply **Flumioxazin 51WDG Prime** to transplanted onions (dry bulb) between the 2- and 6-leaf stage and on direct seed onions (dry bulb) between the 3- and 6-leaf stage.

Timing to Weeds

Pre-Emergence - Emerged Onions (Dry Bulb), Pre-Emergence to Weeds

Apply **Flumioxazin 51WDG Prime** to weed free onions (dry bulb) for pre-emergence control of the weeds listed in Table 1, Section A.

Tank Mixtures

It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable

restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

Chemigation

Flumioxazin 51WDG Prime may be applied through sprinkler irrigation systems in onions (dry bulb).

PEANUT

Restrictions:

- **DO NOT** apply more than 3 oz. of **Flumioxazin 51WDG Prime** (0.096 lb. a.i.) per acre per application.
- **DO NOT** make more than 1 application of **Flumioxazin 51WDG Prime** per acre per year.
- **DO NOT** apply more than 3 oz. of **Flumioxazin 51WDG Prime** (0.096 lb. a.i.) per acre per year.
- **DO NOT** irrigate when peanuts are cracking.
- **DO NOT** graze treated fields or feed treated hay to livestock.
- In California, refer to the section "**FALL AND SPRING PRE-PLANT BURNDOWN AND FALLOW SEEDBED PROGRAMS IN FIELD CORN, PEANUT, AND SOYBEAN**" on this label.
- **DO NOT** apply more than 2 oz./A (0.064 lb. a.i.) in the states of North Carolina, Oklahoma or Virginia, where climatic conditions may result in unacceptable injury to peanuts except as described in the **North Carolina, Oklahoma, and Virginia Only - Pre-Emergence Application in Peanut** section below.

Precaution:

- 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 **Flumioxazin 51WDG Prime**. 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 **Flumioxazin 51WDG Prime** may be reduced.

Timing to Peanuts

Flumioxazin 51WDG Prime may be applied to peanuts prior to planting or pre-emergence (after planting). Pre-emergence applications of **Flumioxazin 51WDG Prime** 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 **Flumioxazin 51WDG Prime** rate from Table 1 according to anticipated weed spectrum.

Timing to Weeds

Burndown - Pre-Emergence to Peanuts, Post-Emergence to Weeds

Flumioxazin 51WDG Prime, applied as part of a burndown program, may be used for residual weed control, as well as to assist in post-emergence 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 **Flumioxazin 51WDG Prime** before planting, during planting or after planting, but before the crop emerges. For control of emerged weeds, tank mix **Flumioxazin 51WDG Prime** 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. **Flumioxazin 51WDG Prime** tank mixes applied to assist in the control of emerged weeds must be applied with an adjuvant, including 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.

Pre-emergence (conventional tillage) application of **Flumioxazin 51WDG Prime** must be applied prior to weed emergence.

Additional Residual Grass Control: Sequential

Flumioxazin 51WDG Prime may be applied sequentially following a pre-plant incorporated application of trifluralin (states of New Mexico, Oklahoma and Texas only), ethalfluralin, metolachlor, pendimethalin, or dimethenamid.

Additional Residual Grass Control: Tank Mixed

Flumioxazin 51WDG Prime can be tank mixed with alachlor, metolachlor, or dimethanamid for additional grass and broadleaf weed control. **Flumioxazin 51WDG Prime** can also be tank mixed with pendimethalin or ethalfluralin in states where they are labeled, provided overhead irrigation guidelines on the pendimethalin and/or ethalfluralin labels are followed. It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

[North Carolina, Oklahoma, and Virginia Only - Pre-Emergence Application in Peanut

DO NOT apply more than 2 oz./A in these states where climatic conditions may result in unacceptable injury to peanuts, except as described below.

Flumioxazin 51WDG Prime, at 3 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. Use **Flumioxazin 51WDG Prime**, at 3 oz./A, in these states when other alternatives are not available for adequate control of the weeds listed on this label and the user acknowledges the risks associated with this use rate under the adverse environmental conditions listed above.]

POTATO

Restrictions:

- **DO NOT** apply more than 1.5 oz. of **Flumioxazin 51WDG Prime** (0.048 lb. a.i.) per acre per application.
- **DO NOT** make more than 1 application of **Flumioxazin 51WDG Prime** per acre per year.
- **DO NOT** apply more than 1.5 oz. of **Flumioxazin 51WDG Prime** (0.048 lb. a.i.) per acre per year.
- **DO NOT** apply to Rill (Furrow) irrigated potatoes.

Precaution:

- 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 **Flumioxazin 51WDG Prime**. On occasion this has resulted in a delay in maturity.

Timing to Potatoes

Flumioxazin 51WDG Prime may be applied to potatoes after hilling for the pre-emergence suppression of the weeds listed in Table 8. **Flumioxazin 51WDG Prime** may be tank mixed with other labeled herbicides for broad-spectrum weed control. A minimum of 2" of settled soil must cover the vegetative portion of the potato plant at the time of **Flumioxazin 51WDG Prime** application. Application to potatoes with less than 2" 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 pre-emergence herbicide applications, including the Red River Valley, Minnesota and North Dakota, the requirement for 2" of settled soil is critical to avoid crop injury. Mechanical incorporation of **Flumioxazin 51WDG Prime** will result in decreased weed control and must be avoided. In areas with sprinkler irrigation, incorporate **Flumioxazin 51WDG Prime** with ¼ - ¾ inch of irrigation, after application and before any sprouts are within 2" of the settled soil surface if a rainfall event has not yet occurred.

Timing to Weeds**Pre-Emergence - Soil Covered Potatoes, Pre-Emergence To Weeds**

Apply **Flumioxazin 51WDG Prime** to soil covered potatoes for the pre-emergence suppression of the weeds listed in Table 8. Harrowing, cultivation or corrugating after **Flumioxazin 51WDG Prime** application will reduce weed control.

Tank Mixtures

It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

[Chemigation

Flumioxazin 51WDG Prime may be applied through sprinkler irrigation systems in potatoes.]

Table 8. Weeds Suppressed by Residual Activity of Flumioxazin 51WDG Prime at 1.5 oz./A

Common Name	Scientific Name	Organic Matter	Flumioxazin 51WDG Prime Rate
Lambsquarters, Common	<i>Chenopodium album</i>	Up to 5%	1.5 oz./A
Mustard, Wild	<i>Brassica kaber</i>		
Nightshades			
Black	<i>Solanum nigrum</i>		
Eastern Black	<i>Solanum ptycanthum</i>		
Hairy	<i>Solanum sarrachoides</i>		
Pigweeds			
Palmer Amaranth	<i>Amaranthus palmeri</i>		
Redroot	<i>Amaranthus retroflexus</i>		
Smooth	<i>Amaranthus hybridus</i>		
Spiny Amaranth	<i>Amaranthus spinosus</i>		
Tumble	<i>Amaranthus albus</i>		
Prickly Lettuce (China Lettuce)	<i>Lactuca serriola</i>		
Radish, Wild	<i>Raphanus raphanistrum</i>		

SOYBEAN

Restrictions:

- **DO NOT** apply more than 3 oz. of **Flumioxazin 51WDG Prime** (0.096 lb. a.i.) per acre per application.
- **DO NOT** make more than 1 application of **Flumioxazin 51WDG Prime** per acre per year.
- **DO NOT** apply more than 3 oz. of **Flumioxazin 51WDG Prime** (0.096 lb. a.i.) per acre per year.
- **DO NOT** graze treated fields or feed treated hay to livestock for 21 days following application of this product.
- **DO NOT** tank mix **Flumioxazin 51WDG Prime** with flufenacet, metolachlor, or dimethenamid 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.
- In California, refer to the section **FALL AND SPRING PRE-PLANT BURNDOWN AND FALLOW SEEDBED PROGRAMS IN FIELD CORN, PEANUT, AND SOYBEAN** on this label.

Timing to Soybeans

Flumioxazin 51WDG Prime may be applied to soybeans prior to planting or pre-emergence (after planting). Pre-emergence application of **Flumioxazin 51WDG Prime** 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. Application must not be made when soybeans have begun to crack. Select **Flumioxazin 51WDG Prime** rate from Table 1 according to anticipated weed spectrum.

Timing to Weeds

Burndown - Pre-Emergence to Soybeans, Post-Emergence to Weeds

Flumioxazin 51WDG Prime, applied as part of a burndown program, may be used for residual weed control, as well as to assist in post-emergence 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 **Flumioxazin 51WDG Prime** 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 rates and application pressure. All **Flumioxazin 51WDG Prime** 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

Flumioxazin 51WDG Prime, at rates as low as 1 oz./A, may be tank mixed with glyphosate 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 **Flumioxazin 51WDG Prime** rates as low as 1 oz./A.

Tank Mixtures

Flumioxazin 51WDG Prime 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 directions. It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

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

Tank Mix Partner	Target Weeds*
2,4-D ethylhexyl ester	Marestail Giant Ragweed Dandelion
paraquat	Annual Grasses Henbit
glyphosate	General Burndown
clethodim	Annual Grasses
imazaquin	Cocklebur Common Sunflower
dicamba dimethylamine salt + 2,4-D dimethylamine salt	Marestail Giant Ragweed Dandelion

*Refer to tank mix product labels for specific directions for control of emerged weeds present.

Additional Residual Broadleaf Control

Flumioxazin 51WDG Prime can be tank mixed with metribuzin, cloransulam-methyl, linuron, imazethapyr, flumetsulam, or imazaquin for additional broadleaf control.

Additional Residual Grass Control

Flumioxazin 51WDG Prime can be tank mixed with pendimethalin or clomazone for additional grass control. In the states of Alabama, Arkansas, Delaware, Georgia, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas and Virginia, **Flumioxazin 51WDG Prime** can be tank mixed with micro-encapsulated acetochlor at 2 oz. per acre. Tank mixes with flufenacet, metolachlor or dimethenamid may result in severe injury to soybeans when application is followed by prolong periods of cool wet weather and must not be used with **Flumioxazin 51WDG Prime**.

Roundup Ready Program

Flumioxazin 51WDG Prime may be applied as part of a burndown program or pre-emergence 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 **Flumioxazin 51WDG Prime**.

STRAWBERRY

Restrictions:

- **DO NOT** apply more than 3 oz. of **Flumioxazin 51WDG Prime** (0.096 lb. a.i.) per acre per application.

- **DO NOT** make more than 1 application of **Flumioxazin 51WDG Prime** per acre per year.
- **DO NOT** apply more than 3 oz. of **Flumioxazin 51WDG Prime** (0.096 lb. a.i.) per acre per year.

Precautions:

- **Flumioxazin 51WDG Prime**, 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.
- **Flumioxazin 51WDG Prime** at 3 oz. per acre can be applied to dormant (established or newly planted) strawberries for the pre-emergence control of the weeds listed in Table 1.
- **Flumioxazin 51WDG Prime**, at 3 oz. per acre, can be applied in strawberry row middles with a shielded or hooded sprayer for the pre-emergence control of the weeds listed in Table 1.

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.
Pre-emergence 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. Avoid application after fruit set as this may result in spotting of fruit. DO NOT allow spray drift to come in contact with fruit or foliage.

Table 10. Weeds Controlled by Pre-Emergence Application of Flumioxazin 51WDG Prime

Broadleaf Weed Species				
Common Name	Scientific Name	Organic Matter	Soil Type	Flumioxazin 51WDG Prime Rate
Bristly Starbur	<i>Acanthospermum hispidum</i>	Up to 10% ¹	All Soil Types ²	6 oz./A Asparagus, Caneberries Garlic, and Hops
Carpetweed	<i>Mollugo verticillata</i>			
Chickweeds				
Common	<i>Stellaria media</i>			
Mouseear	<i>Cerastium vulgatum</i>			
Coffee Senna	<i>Cassia occidentalis</i>			
Dandelion	<i>Taraxacum officinale</i>			
Eclipta	<i>Eclipta prostrata</i>			
Evening Primrose, Cutleaf	<i>Oenothera laciniata</i>			
False Chamomile ^[*]	<i>Tripleurospermum maritima</i>			
Filaree				
Redstem	<i>Erodium cicutarium</i>			
Whitestem	<i>Erodium moschatum</i>			
Fiddleneck, Coast ^[*]	<i>Amsinckia menziesii</i>			
Fleabane, Hairy ^[*]	<i>Conyza bonariensis</i>			
Field Pennycress ^[*]	<i>Thlaspi arvense</i>			
Florida Beggarweed	<i>Desmodium tortuosum</i>			
Florida Pusley	<i>Richardia scabra</i>			
Golden Crownbeard	<i>Verbesina encelioides</i>			
Groundsel, Common	<i>Senecio vulgaris</i>			
Hairy Indigo	<i>Indigofera hirsuta</i>			
Hemp Sesbania	<i>Sesbania exaltata</i>			
Henbit	<i>Lamium amplexicaule</i>			
Jimsonweed	<i>Datura stramonium</i>			
Kochia	<i>Kochia scoparia</i>			
Lambsquarters, Common	<i>Chenopodium album</i>			
Mallow				
Common (Cheeseweed)	<i>Malva neglecta</i>			
Little	<i>Malva parviflora</i>			
Horseweed/Marestail	<i>Conyza canadensis</i>			
Mayweed/False Chamomile ^[*]	<i>Matricaria maritima</i>			
Morningglory				
Entireleaf	<i>Ipomoea hederacea</i> var. <i>integriuscula</i>			
Ivyleaf	<i>Ipomoea hederacea</i>			
Red/Scarlet	<i>Ipomoea coccinea</i>			
Smallflower	<i>Jacquemontia tamnifolia</i>			
				6 to 8 oz./A Sugarcane
				6 to 12 oz./A ² Bushberries, Cactus, Citrus Fruit, Grapes, Olive, Pome Fruit, Pomegranate, Stone Fruit, Tree Nuts, and Non-Bearing Fruit Trees
				6 to 12 oz./A To Maintain Bare Ground on Non-Crop Areas of Farms, Orchards and Vineyards

Common Name	Scientific Name	Organic Matter	Soil Type	Flumioxazin 51WDG Prime Rate
Tall	<i>Ipomoea purpurea</i>			
Mustards				
London Rocket ^[*]	<i>Sisymbrium irio</i>			
Tansy ^[*]	<i>Descurainia pinnata</i>			
Tumble	<i>Sisymbrium altissimum</i>			
Wild	<i>Brassica kaber</i>			
Nettle, Burning ^[*]	<i>Urtica urens</i>			
Nightshades				
Black	<i>Solanum nigrum</i>			
Eastern Black	<i>Solanum ptycanthum</i>			
Hairy	<i>Solanum sarrachoides</i>			
Pigweeds				
Palmer Amaranth	<i>Amaranthus palmeri</i>			
Redroot	<i>Amaranthus retroflexus</i>			
Smooth	<i>Amaranthus hybridus</i>			
Spiny Amaranth	<i>Amaranthus spinosus</i>			
Tumble	<i>Amaranthus albus</i>			
Prickly Lettuce (China Lettuce)	<i>Lactuca serriola</i>			
Prickly Sida (Teaweed)	<i>Sida spinosa</i>			
Puncturevine	<i>Tribulus terrestris</i>			
Purslane				
Common	<i>Portulaca oleracea</i>			
Horse ^[*]	<i>Trianthema portulacastrum</i>			
Radish, Wild	<i>Raphanus raphanistrum</i>			
Ragweed, Common	<i>Ambrosia artemisiifolia</i>			
Redmaids	<i>Calandrinia ciliata</i> var. <i>menziesii</i>			
Redweed	<i>Melochia corchorifolia</i>			
Shepherd's Purse	<i>Capsella bursa-pastoris</i>			
Smellmelon ^[*]	<i>Cucumis melo</i>			
Sowthistle, Annual ^[*]	<i>Sonchus oleraceus</i>			
Spotted Spurge	<i>Euphorbia maculata</i>			
Spurred Anoda	<i>Anoda cristata</i>			
Thistle, Russian	<i>Salsola iberica</i>			
Tropic Croton	<i>Croton glandulosus</i>			
Venice Mallow	<i>Hibiscus trionum</i>			
Waterhemp				
Common	<i>Amaranthus rudis</i>			
Tall	<i>Amaranthus tuberculatus</i>			
Wild Poinsettia	<i>Euphorbia heterophylla</i>			
White Cockle ^[*]	<i>Silene latifolia</i>			
Wormwood, Biennial	<i>Artemisia biennis</i>			
Yellow Rocket ^[*]	<i>Barbarea vulgaris</i>			
Grass Weed Species				
Barnyardgrass	<i>Echinochloa crus-galli</i>	Up to 10% ¹	All Soil Types ²	6 oz./A Asparagus, Caneberries, Garlic, and Hops 6 to 8 oz./A Sugarcane 6 to 12 oz./A ² Bushberries, Cactus, Citrus Fruit, Grapes, Olive, Pome Fruit, Pomegranate, Stone Fruit, Tree Nuts, and Non-Bearing Fruit Trees 6 to 12 oz./A To Maintain Bare Ground on Non-Crop Areas of Farms, Orchards and Vineyards
Bluegrass, Annual	<i>Poa annua</i>			
Crabgrass				
Large	<i>Digitaria sanguinalis</i>			
Smooth	<i>Digitaria ischaemum</i>			
Foxtails				
Bristly	<i>Setaria verticillata</i>			
Giant	<i>Setaria faberi</i>			
Green	<i>Setaria viridis</i>			
Yellow	<i>Setaria glauca</i>			
Goosegrass	<i>Eleusine indica</i>			
Guineagrass	<i>Panicum maximum</i>			
Johnsongrass, Seedling	<i>Sorghum halepense</i>			
Lovegrass, California	<i>Eragrostis diffusa</i>			
Panicum				
Fall	<i>Panicum dichotomiflorum</i>			
Texas	<i>Panicum texanum</i>			
Ryegrass, Italian ^[*]	<i>Lolium multiflorum</i>			
Signalgrass, Broadleaf	<i>Brachiaria platyphylla</i>			

[*]Not for use in California.]

¹Flumioxazin 51WDG Prime can be used on soils with greater than 10%; however, length of residual control may be shorter than on soils with lower organic matter content.²Use a maximum Flumioxazin 51WDG Prime 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.

SUGARCANE

Restrictions:

- **DO NOT** apply more than 8 oz. of **Flumioxazin 51WDG Prime** (0.255 lb. a.i.) per acre per application.
- **DO NOT** make more than 4 applications of **Flumioxazin 51WDG Prime** per acre per year at the 3 oz. rate.
- **DO NOT** apply more than 12 oz. of **Flumioxazin 51WDG Prime** (0.383 lb. a.i.) per acre per year.
- Retreatment Interval (RTI): 14 days
- **DO NOT** apply within 90 days of harvest.

Timing to Sugarcane

Flumioxazin 51WDG Prime may be applied from 2 weeks prior to planting to before the sugarcane emerges, post-directed or at layby. Select the proper **Flumioxazin 51WDG Prime** rate from Table 10 according to anticipated weed spectrum and soil organic matter content for pre-emergence applications. Select **Flumioxazin 51WDG Prime** rate from Table 11 according to emerged weed spectrum and weed heights for post-directed and layby applications.

Timing to Weeds

Burndown - Pre-Emergence to Sugarcane, Post-Emergence to Weeds

Flumioxazin 51WDG Prime may be used for pre-emergence control, and to assist in post-emergence burndown, of many annual broadleaf weeds in sugarcane. For control of emerged weeds, choose the most appropriate tank mix partner from Table 12. Apply **Flumioxazin 51WDG Prime** before the crop emerges. To ensure thorough coverage, use a minimum of 15 gals. of spray solution per acre. All **Flumioxazin 51WDG Prime** 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, including glyphosate, may be formulated with a suitable adjuvant and **DO NOT** require additional adjuvant.

Pre-Emergence - Pre-Emergence to Sugarcane, Pre-Emergence to Weeds

Flumioxazin 51WDG Prime may be used for pre-emergence 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 **Flumioxazin 51WDG Prime** before the crop emerges.

Post-Directed - Post-Emergence to Sugarcane, Post-Emergence to Weeds

Make post-directed applications to upright sugarcane varieties after the sugarcane has exceeded 24" in height and has begun to joint. Post-directed applications must not be made to "PINEAPPLE" varieties. Post-directed applications to "PINEAPPLE" varieties or to upright varieties that have not exceeded 24" 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 **Flumioxazin 51WDG Prime** 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 **Flumioxazin 51WDG Prime** rate based on weed spectrum and weed height from Table 11.

Layby - Post-Emergence to Sugarcane, Post-Emergence to Weeds

Layby applications can be made to upright and "PINEAPPLE" varieties after the sugarcane has exceeded 30" in height and the spray solution will not contact foliage above 6" from the base of the sugarcane. To ensure thorough coverage, use a minimum of 15 gals. of spray solution per acre. Layby applications of **Flumioxazin 51WDG Prime** 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 **Flumioxazin 51WDG Prime** rate based on weed spectrum and weed height from Table 11.

Table 11. Broadleaf Weeds Controlled by Post-Directed or Layby Application of Flumioxazin 51WDG Prime in Sugarcane

Broadleaf Weed Species		Weed Height (Inches)	
Common Name	Scientific Name	3 Oz./A	4 Oz./A
Bindweed, Field*	<i>Convolvulus arvensis</i>	4	8
Carpetweed	<i>Mollugo verticillata</i>	4	4
Cocklebur, Common	<i>Xanthium strumarium</i>	4	4
Florida Beggarweed	<i>Desmodium tortuosum</i>	2	2
Hemp Sesbania	<i>Sesbania exaltata</i>	6	8
Jimsonweed	<i>Datura stramonium</i>	4	4
Lambsquarters, Common	<i>Chenopodium album</i>	4	4
Morningglory			
Entireleaf	<i>Ipomoea hederacea</i> var. <i>integriscula</i>	-	4
Ivyleaf	<i>Ipomoea hederacea</i>	4	4
Pitted	<i>Ipomoea lacunosa</i>	4	6
Red	<i>Ipomoea coccinea</i>	-	4
Tall	<i>Ipomoea purpurea</i>	2	4
Mustard, Wild	<i>Brassica kaber</i>	6	6
Pigweeds			
Palmer Amaranth	<i>Amaranthus palmeri</i>	4	6
Redroot	<i>Amaranthus retroflexus</i>	4	6
Smooth	<i>Amaranthus hybridus</i>	4	6
Plantain, Broadleaf	<i>Plantago major</i>	6	6
Prickly Sida	<i>Sida spinosa</i>	4	6
Purslanes			

Broadleaf Weed Species		Weed Height (Inches)	
Common Name	Scientific Name	3 Oz./A	4 Oz./A
Common	<i>Portulaca oleracea</i>	2	4
Rock	<i>Calandrinia</i> spp.	-	2
Ragweeds			
Common	<i>Ambrosia artemisiifolia</i>	2	2
Giant	<i>Ambrosia trifida</i>	4	4
Rice Flatsedge	<i>Cyperus iria</i>	2	4
Sicklepod	<i>Senna obtusifolia</i>	4	4
Smartweeds			
Ladysthumb	<i>Polygonum persicaria</i>	4	4
Pale	<i>Polygonum lapathifolium</i>	4	4
Pennsylvania	<i>Polygonum pensylvanicum</i>	4	4
Spotted Spurge	<i>Euphorbia maculata</i>	4	4
Velvetleaf	<i>Abutilon theophrasti</i>	4	6
Venice Mallow	<i>Hibiscus trionum</i>	2	2
Waterhemp			
Common	<i>Amaranthus rudis</i>	2	2
Tall	<i>Amaranthus tuberculatus</i>	2	2

*Flumioxazin 51WDG Prime tank mixes will only control the above ground portion of field bindweed. Repeated applications will be needed to control regrowth.

Tank Mixtures

Flumioxazin 51WDG Prime may be tank mixed with the herbicides listed in Table 12 for additional weed control in burndown, pre-emergence, post-directed, and layby applications. Refer to tank mix partner's label for adjuvant directions. It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

Table 12. Tank Mixes with Flumioxazin 51WDG Prime for Post-Directed or Layby Use in Sugarcane

Tank Mix Partner*	Target Weeds	Burndown	Post-Directed**	Layby
2,4-D amine	Annual and Perennial Broadleaf Weeds	X		
atrazine	Pigweeds Cocklebur	X	X	X
asulam, sodium salt ¹	Annual Grasses		X	X
ametryn ²	Annual Grasses		X	X
glyphosate ³	Annual and Perennial Weeds	X		X
metribuzin ⁴	Broadleaf Panicum Goosegrass		X	X
halosulfuron-methyl	Purple Nutsedge Yellow Nutsedge	X	X	X
2,4-D amine + dicamba dimethylamine salt	Annual and Perennial Broadleaf Weeds	X		

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

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

¹Apply to sugarcane at least 24" tall.

²Apply before weeds are greater than 6" tall.

³Glyphosate 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.

⁴Refer to metribuzin label for restrictions based on soil type.

Additional Pre-Emergence Broadleaf Control

Flumioxazin 51WDG Prime can be tank mixed with atrazine or diuron for additional pre-emergence broadleaf control.

Additional Pre-Emergence Grass Control

Flumioxazin 51WDG Prime can be tank mixed with pendimethalin products for additional pre-emergence grass control provided sugarcane has not emerged.

SUNFLOWER AND SAFFLOWER

HARVEST AID

Restrictions:

- **DO NOT** apply more than 3 oz. of **Flumioxazin 51WDG Prime** (0.096 lb. a.i.) per acre per application.
- **DO NOT** make more than 1 application of **Flumioxazin 51WDG Prime** per acre per year.
- **DO NOT** apply more than 3 oz. of **Flumioxazin 51WDG Prime** (0.096 lb. a.i.) per acre per year.
- **DO NOT** harvest within 5 days of application.

Desiccation from **Flumioxazin 51WDG Prime** 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 **Flumioxazin 51WDG Prime** with glyphosate or paraquat will increase control of emerged weeds and aid in harvest for sunflowers. Tank mixing **Flumioxazin 51WDG Prime** with glyphosate will increase control of emerged weeds and aid in the harvest for safflower. It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

Timing to Sunflower and Safflower

Apply **Flumioxazin 51WDG Prime**, 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 15 to 30 gals. of spray solution per acre and select nozzle type using manufacturer's gallonage and pressure guidelines for post-emergence application.

SWEET POTATO

Restrictions:

- **DO NOT** apply more than 3 oz. of **Flumioxazin 51WDG Prime** (0.096 lb. a.i.) per acre per application.
- **DO NOT** make more than 1 application of **Flumioxazin 51WDG Prime** per acre per year.
- **DO NOT** apply more than 3 oz. of **Flumioxazin 51WDG Prime** (0.096 lb. a.i.) per acre per year.
- **DO NOT** apply post-emergence to sweet potatoes.
- **DO NOT** use greenhouse grown transplants.
- **DO NOT** use transplants harvested more than 2 days prior to transplanting.
- **DO NOT** use on any sweet potato variety other than "BEAUREGARD", unless user has tested **Flumioxazin 51WDG Prime** 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 clomazone, if tank mix is applied prior to transplanting.

Timing to Sweet Potatoes

Flumioxazin 51WDG Prime must be applied prior to transplanting sweet potatoes.

Timing to Weeds

Pre-Emergence to Weeds

Apply **Flumioxazin 51WDG Prime** to soil prior to transplanting sweet potato slips for the pre-emergence control of the weeds listed in Table 1.

WHEAT

Restrictions:

- **DO NOT** apply more than 2 oz. of **Flumioxazin 51WDG Prime** (0.064 lb. a.i.) per acre per application.
- **DO NOT** make more than 1 application of **Flumioxazin 51WDG Prime** per acre per year.
- **DO NOT** apply more than 2 oz. of **Flumioxazin 51WDG Prime** (0.064 lb. a.i.) per acre per year.

Pre-Plant Applications, Pre-Emergence Weed Control

Restrictions:

- For pre-plant weed control, use only on no-till or minimum tillage fields where the previous year's crops residue has not been incorporated into the soil.
- [Plant wheat no sooner than 7 days after **Flumioxazin 51WDG Prime** application in the states of DE, ID, KY, MD, MN, MT, NC, ND, NJ, OR, PA, SC, SD, TN, VA, WA, or WI.]
- [Plant wheat no sooner than 14 days after **Flumioxazin 51WDG Prime** application in the states of DE, ID, KY, MD, MN, MT, NC, ND, NJ, OR, PA, SC, SD, TN, VA, WA, or WI.]
- [**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" in height.

Burndown

Flumioxazin 51WDG Prime, applied as part of a burndown program, at 2 oz./A, may be used for residual weed control, as well as to assist in post-emergence burndown of many weeds where wheat will be planted directly into the residue of the previous crop. See **FALL BURNDOWN PROGRAMS IN FIELDS TO BE PLANTED TO BARLEY, FIELD PEAS, FLAX, LENTIL, SAFFLOWER, SUNFLOWER, AND SPRING WHEAT** for rates and timing of applications. For control of emerged weeds, **Flumioxazin 51WDG Prime** must be applied with an appropriate burndown tank mix partner. To ensure thorough coverage, use a minimum of 15 gals. of spray solution per acre. Refer

to tank mix partner's label for adjuvant systems. It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

Post-Plant, Pre-Emergence Weed Control

Flumioxazin 51WDG Prime, applied at 2 oz./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.

Restrictions - Post-Plant, Pre-Emergence Weed Control

- 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 **Flumioxazin 51WDG Prime** 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" in height.

HARVEST AID

Flumioxazin 51WDG Prime, 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 **Flumioxazin 51WDG Prime** with glyphosate will increase control of emerged weeds and aid in harvest. It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

To ensure coverage, use a minimum of 10 gals. spray solution per acre by ground application and a minimum of 5 gals. per acre by aerial application. Nozzle selection must meet manufacturer's gallonage and pressure guidelines for post-emergence application.

Restriction - Harvest Aid:

- **DO NOT** harvest within 10 days of application.

Timing to Wheat

Apply **Flumioxazin 51WDG Prime**, at 1.5 to 2 oz./A, after wheat reaches the hard dough stage and grain has no more than 30% moisture. Wheat can be harvested 10 days after application. Prime Source, LLC advises tank mixing with glyphosate.

BUSHBERRIES, CANEBERRY, CITRUS FRUIT, GRAPE, OLIVE, POME FRUIT, POMEGRANATE, STONE FRUIT, TREE NUTS, AND NON-BEARING FRUIT TREES

Bushberries (Subgroup 13-07B): Aronia Berry, Blueberry, Highbush; Blueberry, Lowbush; Buffalo Currant; Chilean Guava; Cranberry, Highbush; Currant, Black; Currant, Red; Elderberry, European Barberry, Gooseberry, Honeysuckle edible; Huckleberry; Jostaberry; Juneberry (Saskatoon Berry); Lingonberry; Native Currant; Salal; Sea Buckthorn; cultivars, varieties, and/or hybrids of these.

Caneberries (Subgroup 13-07A): Blackberry; Loganberry; Black Raspberry; Red Raspberry; Wild Raspberry; cultivars, varieties and/or hybrids of these.

Citrus Fruit (Crop Group 10-10): Australian Desert Lime; Australian Finger-lime; Australian Round Lime; Brown River Finger Lime; Calamondin; Citron; Citrus hybrids; Grapefruit; Japanese Summer Grapefruit; Kumquat; Lemon; Lime; Mediterranean Mandarin; Mount White Lime; New Guinea Wild Lime; Orange, Sour; Orange, Sweet; Pummelo; Russell River Lime; Satsuma Mandarin; Sweet Lime; Tachibana Orange; Tahiti Lime; Tangelo; Tangerine (mandarin); Tangor; Trifoliolate Orange; Uniq Fruit; cultivars, varieties and/or hybrids of these.

Tree Nuts (Crop Group 14-12): African Nut-tree; Almond, Beechnut; Brazil Nut; Brazilian Pine; Bunya; Bur Oak; Butternut; Cajou Nut; Candlenut; Cashew; Chestnut; Chinquapin; Coconut; Coquito Nut; Dika Nut; Ginkgo; Guiana Chestnut; Hazelnut (Filbert); Heartnut; Hickory Nut; Japanese Horse-chestnut; Macadamia Nut; Mongongo Nut; Monkey-pot; Monkey Puzzle Nut; Okari Nut; Pachira Nut; Peach Palm Nut; Pecan; Pequi; Pili Nut; Pine Nut; Pistachio; Sapucaia Nut; Tropical Almond; Walnut, Black; Walnut, English; Yellowhorn; cultivars, varieties and/or hybrids of these.

Pome Fruit (Crop Group 11-10): Apple; Azarole; Crabapple; Loquat; Mayhaw; Medlar; Pear; Pear, Asian; Quince; Quince, Chinese; Quince, Japanese; Tejocote; cultivars, varieties and/or hybrids of these.

Stone Fruit (Crop Group 12-12): Apricot; Apricot, Japanese; Capulin; Cherry, Black; Cherry, Nanking; Cherry, Sweet; Cherry, Tart; Jujube, Chinese; Nectarine; Peach; Plum; Plum, American; Plum, Beach; Plum, Canada; Plum, Cherry; Plum, Chickasaw; Plum, Damson; Plum, Japanese; Plum, Klamath; Plum, Prune; Plumcot; Sloe; and cultivars, varieties and/or hybrids of these.

Restrictions:

- Maximum Single Application Use Rate:
-**DO NOT** apply more than 12 oz. of **Flumioxazin 51WDG Prime** (0.383 lb. a.i.) per acre per application, except caneberries.
-**Caneberries: DO NOT** apply more than 6 oz. **Flumioxazin 51WDG Prime** (0.191 lb. a.i.) per acre per application.
- Maximum Annual Application Use Rate:
-**DO NOT** apply more than 24 oz. of **Flumioxazin 51WDG Prime** (0.765 lb. a.i.) per acre per year, except bushberries and caneberries.
-**Bushberries: DO NOT** apply more than 12 oz. of **Flumioxazin 51WDG Prime** (0.383 lb. a.i.) per acre per year.
-**Caneberries: DO NOT** apply more than 6 oz. **Flumioxazin 51WDG Prime** (0.191 lb. a.i.) per acre per year.
- **DO NOT** make more than 2 applications of **Flumioxazin 51WDG Prime** per acre per year.
- Retreatment Interval (RTI):
-**DO NOT** make a sequential application within 30 days of the first application, except tree nuts.
-**Tree nuts: DO NOT** make a sequential application within 60 days of the first application.
- **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 pome fruit and stone fruit.
- **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.
- For non-bearing fruit trees (avocado and fig), **DO NOT** harvest fruit from treated trees within 1 year of application.
- Pre-Harvest Interval (PHI):

Crop	PHI (Days)
Citrus Fruit	3
Bushberries and Caneberries	7
Grape, Olive, Pome Fruit, Pomegranate, Stone Fruit, and Tree Nuts	60

Precautions:

- Use a maximum **Flumioxazin 51WDG Prime** rate of 6 oz./A (0.191 lb. a.i.) 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.
- Raise mower height during all mowing to reduce dust. Dust created by mowing can 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).
- Irrigate after application with minimum of ¼ inch of water to activate the herbicide and to reduce wind displacement of soil.

Precautions - Bushberries:

- If bushberries are established less than 2 years, ensure that they are protected from spray contact by non-porous wrap, grow tubes or waxed containers.
- **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

Precautions - Grapes:

- If grapes are established less than 2 years, ensure that 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.
- Apply only to grapes that are trellised, staked, or are free standing.
- Avoid direct or indirect spray contact to foliage and green bark (non-barked vines, with the exception of undesirable suckers).
- Plant new plantings of "own-rooted varieties", including Concord, so that all roots are a minimum of 8" 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" - 5" above the vineyard floor.
- **Juice, Raisin and Wine Grapes:** If applied during the period after bud break through final harvest, use 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:** Apply **Flumioxazin 51WDG Prime** between final harvest up to bud break.

Precautions - Citrus Fruit, Olive, Pome Fruit, Pomegranate, Stone Fruit, and Tree Nuts:

- For pome fruit and stone fruit, **Flumioxazin 51WDG Prime** 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.
- For pome fruit and stone fruit, make application only to berms.
- For olive, pomegranate, and tree nuts, 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.
- If trees are established less than one year, ensure that they are protected from spray contact by non-porous wraps, grow tubes, paint, or waxed containers.
- For apples east of the Cascade Mountains in Washington, follow the restrictions above plus:
 - Apply between final harvest and January 1st.
 - 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 ½ inch of water within 48 hours after application.
 - Apply only to orchard berms.
- California Only: For almonds and stone fruit in the counties of Merced, San Joaquin and Stanislaus, refer to use precautions below.
- **DO NOT** apply to pears in the states of Oregon or Washington.
- **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

Precautions - Almonds and Stone Fruit in Defined Areas of Merced, San Joaquin, and Stanislaus Counties of California:

The use of **Flumioxazin 51WDG Prime** 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. Growers in the Defined Area must be aware and assume the risk of using **Flumioxazin 51WDG Prime** on almond or stone fruit crops. 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.

Precautions - Non-Bearing Fruit Trees (Avocado and Fig)

- If trees are established less than one year, ensure that they are protected from spray contact by non-porous wraps, grow tubes or waxed containers.
- If applied after flowering through leaf drop, use shielded application equipment and the applicator can ensure spray drift will not come in contact with the crop foliage.

Use Directions

For bushberries, caneberries, citrus fruit, grape, olive, pomegranate, tree nuts, and non-bearing fruit trees, apply **Flumioxazin 51WDG Prime** 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 stone fruit and pear, **Flumioxazin 51WDG Prime** can only be applied as a uniform band directed at the base of the trunk prior to "bud break". For apple, **Flumioxazin 51WDG Prime** can only be applied as a uniform band directed at the base of the trunk prior to "pink bud". For other pome fruit, check with your Prime Source, LLC representative for application timing. The preferred application timing for **Flumioxazin 51WDG Prime** 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.

Pre-Emergence Application

Apply 6 to 12 oz. (0.188 to 0.38 lb. a.i./A) (maximum of 6 oz./A for caneberries) of **Flumioxazin 51WDG Prime** per broadcast acre as a pre-emergence application. Make pre-emergence (to weed emergence) applications of **Flumioxazin 51WDG Prime** to a weed-free soil surface. Pre-emergence applications of **Flumioxazin 51WDG Prime** must be completed prior to weed emergence. Moisture is necessary to activate **Flumioxazin 51WDG Prime** on soil for residual weed control. Dry weather following application of **Flumioxazin**

51WDG Prime may reduce effectiveness. However, when adequate moisture is received after dry conditions, **Flumioxazin 51WDG Prime** will control susceptible germinating weeds.

Post-Emergence Application

If weeds are emerged at the time of application, apply 6 to 12 oz. (0.188 to 0.383 lb. a.i./A) (maximum 6 oz./A for caneberries) of **Flumioxazin 51WDG Prime** 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 **Flumioxazin 51WDG Prime** activity on emerged weeds. Thorough spray coverage is necessary to maximize the post-emergence activity of **Flumioxazin 51WDG Prime**. **Flumioxazin 51WDG Prime** will not control emerged weeds without the addition of a labeled burndown product.

Refer to Table 10 for weeds controlled by the residual activity of **Flumioxazin 51WDG Prime**. Tank mix **Flumioxazin 51WDG Prime** 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. Tank mixes with glyphosate or 2,4-D containing products are not advised during the period after bloom through final harvest to ensure crop safety from drift.

Residual weed control will be reduced if vegetation prevents the **Flumioxazin 51WDG Prime** from reaching the soil surface. If vegetation is heavy, it is advised to use a burndown herbicide with **Flumioxazin 51WDG Prime** and make a sequential **Flumioxazin 51WDG Prime** 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 gals. 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 guidelines.

Banded Application

Rates listed in the below Table 13, refer to a broadcast application covering the entire acre. Refer to the **BAND APPLICATION** table within the **PRODUCT INFORMATION** section to calculate amount needed per acre when making a banded application.

Table 13. Weeds Controlled by Post-Emergence Activity of Flumioxazin 51WDG Prime Tank Mixes

Broadleaf Weed Species			
Common Name	Scientific Name	Weed Height/Length (Inches)	Flumioxazin 51WDG Prime Rate
Bindweed, Field ¹	<i>Convolvulus arvensis</i>	8	6 to 12 oz./A
Carpetweed	<i>Mollugo verticillata</i>	4	
Chickweeds			
Common	<i>Stellaria media</i>	4	
Mouseear	<i>Cerastium vulgatum</i>	4	
Cocklebur, Common	<i>Xanthium strumarium</i>	4	
Evening Primrose, Cutleaf ²	<i>Oenothera laciniata</i>	12	
Filaree			
Broadleaf	<i>Erodium botrys</i>	4	
Redstem	<i>Erodium cicutarium</i>	4	
Florida Beggarweed	<i>Desmodium tortuosum</i>	2	
Hemp Sesbania	<i>Sesbania exaltata</i>	8	
Jimsonweed	<i>Datura stramonium</i>	4	
Lambsquarters, Common	<i>Chenopodium album</i>	4	
Morningglory			
Entireleaf	<i>Ipomoea hederacea</i> var. <i>integriuscula</i>	4	
Ivyleaf	<i>Ipomoea hederacea</i>	4	
Pitted	<i>Ipomoea lacunose</i>	6	
Red/Scarlet	<i>Ipomoea coccinea</i>	4	
Tall	<i>Ipomoea purpurea</i>	4	
Mustard, Wild	<i>Brassica kaber</i>	6	
Pigweeds			
Palmer Amaranth	<i>Amaranthus palmeri</i>	6	
Redroot	<i>Amaranthus retroflexus</i>	6	
Smooth	<i>Amaranthus hybridus</i>	6	
Plantain, Broadleaf	<i>Plantago major</i>	6	
Prickly Sida (Teaweed)	<i>Sida spinosa</i>	6	
Purslanes			
Common	<i>Portulaca oleracea</i>	4	
Rock	<i>Calandrinia</i> spp.	2	
Ragweeds			
Common	<i>Ambrosia artemisiifolia</i>	2	
Giant	<i>Ambrosia trifida</i>	4	
Rice Flatsedge	<i>Cyperus iria</i>	4	
Sicklepod	<i>Senna obtusifolia</i>	4	

Broadleaf Weed Species			
Common Name	Scientific Name	Weed Height/Length (Inches)	Flumioxazin 51WDG Prime Rate
Smartweeds			
Ladysthumb	<i>Polygonum persicaria</i>	4	
Pale	<i>Polygonum lapathifolium</i>	4	
Pennsylvania	<i>Polygonum pennsylvanicum</i>	4	
Spotted Spurge	<i>Euphorbia maculata</i>	4	
Velvetleaf	<i>Abutilon theophrasti</i>	4	
Venice Mallow	<i>Hibiscus trionum</i>	4	
Waterhemp			
Common	<i>Amaranthus rudis</i>	2	
Tall	<i>Amaranthus tuberculatus</i>	2	

¹Flumioxazin 51WDG Prime will only provide control of the above ground portion of bindweed. Repeated applications will be needed to control regrowth.

²For acceptable control, cutleaf evening primrose must be 12" 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

Flumioxazin 51WDG Prime may be tank mixed with oryzalin, simazine or diuron for additional residual weed control. It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

MAINTAIN BARE GROUND ON NON-CROP AREAS OF FARMS, ORCHARDS, AND VINEYARDS

Restrictions:

- **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.
- **DO NOT** apply more than 12 oz. Flumioxazin 51WDG Prime (0.383 lb. a.i.) per acre per application.
- **DO NOT** make more than 2 application of Flumioxazin 51WDG Prime per acre per year.
- **DO NOT** apply more than 24 oz. of Flumioxazin 51WDG Prime (0.766 lb. a.i.) per acre per year.

Flumioxazin 51WDG Prime, 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 under the "PRODUCT INFORMATION" section.

Flumioxazin 51WDG Prime offers residual and post-emergence 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. Flumioxazin 51WDG Prime can be tank mixed with the herbicides listed in Table 14 for increased residual or post-emergence 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. Flumioxazin 51WDG Prime rates of 6 to 12 oz./A are required to provide residual control of the weeds listed in Table 10.

Pre-Emergence Application

Apply 6 to 12 oz. (0.188 to 0.38 lb. a.i./A) of Flumioxazin 51WDG Prime per broadcast acre as a pre-emergence application. Make pre-emergence (prior to weed emergence) applications of Flumioxazin 51WDG Prime to a weed-free soil surface. Pre-emergence applications of Flumioxazin 51WDG Prime must be completed prior to weed emergence. Moisture is necessary to activate Flumioxazin 51WDG Prime on soil for residual weed control. Dry weather following application of Flumioxazin 51WDG Prime may reduce effectiveness. However, when adequate moisture is received after dry conditions, Flumioxazin 51WDG Prime will control susceptible germinating weeds.

Post-Emergence Application

Apply 6 to 12 oz. (0.188 to 0.38 lb. a.i./A) of Flumioxazin 51WDG Prime 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 Flumioxazin 51WDG Prime activity on emerged weeds. Thorough spray coverage is necessary to maximize the post-emergence activity of Flumioxazin 51WDG Prime. Emerged weeds are controlled post-emergence with Flumioxazin 51WDG Prime, however, translocation of Flumioxazin 51WDG Prime within a weed is limited, and control is affected by spray coverage and by the addition of an adjuvant. The most effective post-emergence weed control with Flumioxazin 51WDG Prime occurs when applied in combination with a surfactant to weeds less than 2" in height. Use a tank mix partner in combination with Flumioxazin 51WDG Prime for the post-emergence control of weeds larger than 2". Specified tank mix partners are listed in Table 14.

Tank Mixtures

It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

Table 14. Tank Mix Combination to Maintain Bare Ground on Non-Crop Areas

glyphosate	2,4-D	glufosinate	paraquat
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STORAGE AND DISPOSAL

DO NOT contaminate water, food or feed by storage, disposal or cleaning of equipment.

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.

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:

[Container statement for Nonrefillable container small enough to shake]

[Nonrefillable Container. DO NOT reuse or refill this container. Offer for recycling, if available. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling, if available or puncture and dispose of in a sanitary landfill.]

-or-

[Container statement for Nonrefillable container with liner greater than 50 lbs.]

[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 if 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 ¼ 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. Empty the rinsate 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.]

CONDITION 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 for 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 Prime Source, 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 Prime Source, LLC and Seller harmless for any claims relating to such factors.

Prime Source, 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 Prime Source, LLC, and Buyer and User assume the risk of any such use. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, PRIME SOURCE, LLC MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS STATED ABOVE.

To the extent consistent with applicable law, neither Prime Source, 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 PRIME SOURCE, 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 PRIME SOURCE, LLC OR SELLER, THE REPLACEMENT OF THE PRODUCT.**

Prime Source, LLC and Seller offer this product, and Buyer and User accept it, subject to the foregoing Conditions of Sale and Limitation of Warranty and Liability, which may not be modified except by written agreement signed by a duly authorized representative of Prime

Source, LLC.

[Chateau and Valor are registered trademarks of Valent U.S.A. Corporation.

Roundup and Roundup Readyare registered trademarks of Monsanto Co.]

[All trademarks are the property of their respective owners.]

[EPA approval date]

FLUMIOXAZIN	GROUP	14	HERBICIDE
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[Sub-Label B]

Flumioxazin 51WDG Prime

For Use in Container and Field Grown Conifers (Including Christmas Trees) and Deciduous Trees, Around Established Woody Ornamentals in Landscapes, To Maintain Bare Ground Non-Crop Areas, Conifer and Poplar Re-Forestation Sites, Dormant Turfgrass, Management of Undesirable Aquatic Vegetation in Slow Moving or Quiescent Waters, and to Maintain Bare Ground Non-Crop Areas

Contains flumioxazin, the active ingredient used in Valor® SX and Chateau®.

ACTIVE INGREDIENT:	% BY WT.
Flumioxazin: 2-[7-flouro-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	51.0%
OTHER INGREDIENTS:	49.0%
TOTAL:	100.0%

Flumioxazin 51WDG Prime is a water dispersible granule containing 51% active ingredient.

KEEP OUT OF REACH OF CHILDREN CAUTION

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)

FIRST AID	
IF ON SKIN OR CLOTHING:	<ul style="list-style-type: none"> • Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15-20 minutes. • Call a poison control center or doctor for treatment advice.
IF INHALED:	<ul style="list-style-type: none"> • Move person to fresh air. • If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible. • Call a poison control center or doctor for further treatment advice.
HOTLINE NUMBER	
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. For emergency information concerning this product, call your poison control center at 1-800-222-1222 .	

[Optional referral statements when booklets and container labels are used:

See Panel for First Aid Instructions and booklet for complete Precautionary Statements and Directions For Use.
See label booklet for complete Precautionary Statements, Directions For Use, and Storage and Disposal.
See label booklet for additional Precautionary Statements, Directions For Use, and Storage and Disposal.
See label booklet for complete Directions For Use.]

EPA Reg. No. 93647-30

EPA Est. No. XXXXX-XX-XXX

Net Contents: _____ [Lbs./Kg.]

Manufactured For:

Tigris, LLC
10025 Hwy. 264 Alternate
Middlesex, NC 27557

Flumioxazin 51WDG Prime is not manufactured, or distributed by Valent U.S.A. Corporation, seller of Valor and Chateau.

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION

Harmful if absorbed through skin. Harmful if inhaled. Avoid contact with skin, eyes, or clothing. Avoid breathing dust or spray mist. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove and wash contaminated clothing before reuse.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Socks and Shoes
- Chemical-resistant gloves made of any waterproof material.

USER SAFETY REQUIREMENTS

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

USER SAFETY RECOMMENDATIONS

Users should:

- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

ENVIRONMENTAL HAZARDS

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 or rinsate.

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, including no till, limited till and contour plowing; these methods also reduce pesticide run-off. Use of vegetation filter strips along rivers, creeks, streams, wetlands or on the downhill side of fields where run-off could occur will minimize water run-off.

Treatment of aquatic weeds can result in oxygen loss from decomposition of dead weeds. This loss can cause fish suffocation. Therefore, to minimize this hazard, treat 1/3 to 1/2 of the water area in a single operation and wait at least 10 to 14 days between treatments. Begin treatment along the shore and proceed outwards in bands to allow fish to move into untreated areas. Consult with the State agency with primary responsibility for regulating pesticides before applying to public waters to determine if a permit is needed.

[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.]

PHYSICAL OR CHEMICAL HAZARDS

DO NOT mix or allow coming in contact with oxidizing and reducing agents. A hazardous chemical reaction may occur.

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 instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

DO NOT enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 12 hours.

The following PPE is required for early entry into treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, including plants, soil, or water:

- Coveralls
- Chemical-resistant gloves made of any 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.

TANK MIXES NOTICE

It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

RESISTANCE MANAGEMENT

For resistance management, **Flumioxazin 51WDG Prime** is a Group 14 herbicide. Any weed population may contain or develop plants naturally resistant to **Flumioxazin 51WDG Prime** and other Group 14 herbicides. The resistant biotypes may dominate the weed population if these herbicides are used repeatedly in the same field. Appropriate resistance-management strategies should be followed.

To delay herbicide resistance take one or more of the following steps:

- Rotate the use of **Flumioxazin 51WDG Prime** or other Group 14 herbicides within a growing season sequence or among growing seasons with different herbicide groups that control the same weeds in a field.
- Use tank mixtures from a different group if such use is permitted; where information on resistance in target weed species is available, use the less resistance-prone partner at a rate that will control the target weed(s) equally as well as the more resistance-prone partner. Consult your local extension service or certified crop advisor if you are unsure as to which active ingredient is currently less prone to resistance.
- Adopt an integrated weed-management program for herbicide use that includes scouting and uses historical information related to herbicide use and crop rotation, and that considers tillage (or other mechanical control methods), cultural (e.g., higher crop seeding rates; precision fertilizer application method and timing to favor the crop and not the weeds), biological (weed-competitive crops or varieties) and other management practices.
- Scout after herbicide application to monitor weed populations for early signs of resistance development. Indicators of possible herbicide resistance include: (1) failure to control a weed species normally controlled by the herbicide at the dose applied, especially if control is achieved on adjacent weeds; (2) a spreading patch of non-controlled plants of a particular weed species; (3) surviving plants mixed with controlled individuals of the same species. If resistance is suspected, prevent weed seed production in the affected area by an alternative herbicide from a different group or by a mechanical method including hoeing or tillage. Prevent movement of resistant weed seeds to other fields by cleaning harvesting and tillage equipment when moving between fields, and planting clean seed.
- If a weed pest population continues to progress after treatment with this product, discontinue use of this product, and switch to another management strategy or herbicide with a different mode of action, if available.
- Contact your local extension specialist or certified crop advisors for additional pesticide resistance management and/or integrated weed-management directions for specific crops and weed biotypes.
- For further information or to report suspected resistance, contact Prime Source, LLC.

PRODUCT USE INFORMATION

Flumioxazin 51WDG Prime is a pre-emergence and early post-emergence herbicide for control of selected grass and broadleaf weeds in and around ornamental woody shrubs, deciduous trees and conifers (including Christmas trees) grown outdoors in containers or in the field (in ground), to maintain bare ground non-crop areas, conifer and poplar re-forestation, and dormant warm season turfgrass.

Flumioxazin 51WDG Prime controls weeds by inhibiting protoporphyrinogen oxidase, an essential enzyme required by plants for chlorophyll biosynthesis. Seedling weeds are controlled pre-emergence when exposed to sunlight following contact with the soil applied herbicide.

Flumioxazin 51WDG Prime may cause spotting or speckling on foliage if the spray solution directly contacts actively growing plant foliage or green bark. Leaves that receive indirect (drift) spray contact may be affected in a similar manner. Translocation of **Flumioxazin 51WDG Prime** is limited, and under most conditions established and vigorously growing woody ornamentals will rapidly outgrow any injury symptoms. **However, direct application to actively growing foliage can cause severe injury or death with sensitive ornamental plant species, especially in herbaceous bedding plants and flowers.**

IMPORTANT: When applied as directed, plants listed on this label have shown tolerance to this product. However, **Flumioxazin 51WDG Prime** is a very active herbicide and the user must exercise responsible judgment and caution until familiarity is gained with **Flumioxazin 51WDG Prime**. Due to variability within species, crop growth stage, environmental conditions and application techniques, test this product under local growing conditions on a small number of plants and evaluate for 4 - 6 weeks for phytotoxicity. Testing this product on a small number of plants will determine if the herbicide can be used safely on a widespread application. Neither the seller nor the manufacturer of this product has investigated the safety to plants not listed on the label.

Flumioxazin 51WDG Prime Rate Summary	
Ounces of Flumioxazin 51WDG Prime	Pounds of Flumioxazin
0.5	0.016
1	0.032
1.5	0.049
2	0.064
2.5	0.080
4	0.128
6	0.191
8	0.255
12	0.383
24	0.765

PRODUCT INFORMATION

Flumioxazin 51WDG Prime is a fast acting contact herbicide that controls selected submersed, emergent, and floating aquatic weeds. It is most effective when applied to young, actively growing weeds in water with a pH of less than 8.5.

Flumioxazin 51WDG Prime may be applied to the following quiescent or slow moving bodies of water:

- Bayous
- Canals
- Drainage ditches
- Lakes
- Marshes
- Ponds (including golf course ponds)
- Reservoirs

Application of **Flumioxazin 51WDG Prime** to public aquatic areas may require special approval and/or permits. Consult with local State agencies, if required.

Restrictions - For Terrestrial Uses

- **DO NOT** apply in enclosed greenhouse structures if plants are present.
- **DO NOT** move plants for 24 hours into enclosed greenhouses until the area treated with this product has been watered.
- **DO NOT** apply when weather conditions favor spray drift from treated areas.
- **DO NOT** graze treated fields or hay to livestock.
- **DO NOT** incorporate into soil after application.
- **DO NOT** apply this product through any type of irrigation system.
- **DO NOT** apply when plants are under stress from insects, diseases, animals or winter injury, planting shock or any other stresses.
- **DO NOT** apply to stressed or diseased trees and ornamentals - only apply to healthy established trees and ornamentals.
- **DO NOT** apply more than 12 oz. (0.383 lb. a.i.) of this product per acre per application.
- **DO NOT** apply more than 24 oz. (0.765 lb. a.i.) of this product per acre per year.
- **DO NOT** apply more than 2 applications at 12 oz. (0.383 lb. a.i.) or 3 applications at 8 oz. (0.255 lb. a.i.) per acre per year.
- **DO NOT** re-apply **Flumioxazin 51WDG Prime** within 30 days.
- Not for homeowner use.

Precautions - For Surface & Subsurface Water Treatment

- There is no post-application holding restriction against use of treated water for drinking or recreational purposes (e.g., swimming, fishing).
- Treated water may be used for irrigation purposes on turf and landscape ornamentals as outlined in the **IRRIGATION RESTRICTIONS FOLLOWING APPLICATION** table.

Restrictions - For Surface & Subsurface Water Treatment

- **DO NOT** apply to intertidal or estuarine areas.

- **DO NOT** retreat the same section of water within 28 days of application. In areas with dense weed vegetation, only treat ½ the water body at one time and wait 10 - 14 days before treating the remaining area.
- **DO NOT** use treated water for irrigation purposes on food crops until at least five (5) days after application.
- **DO NOT** use in water utilized for crawfish farming.
- **DO NOT** retreat the same section of water with this product more than 6 times per year.
- **DO NOT** exceed 400 ppb of this product during any one application.
- Not for homeowner use.

Restrictions - For IVM

- **DO NOT** apply when weather conditions favor spray drift from treated areas.
- **DO NOT** incorporate into soil after application.
- **DO NOT** apply this product through any type of irrigation system.
- **DO NOT** apply more than 12 oz. (0.383 lb. a.i.) of this product per acre per application.
- **DO NOT** apply more than 24 oz. (0.765 lb. a.i.) of this product per acre per year.
- **DO NOT** apply to moist or wet desirable plant foliage.
- **DO NOT** apply within 300 feet of non-dormant pome or stone fruit crops.
- **DO NOT** apply when the crop or weeds are under stress due to drought, excessive water and extremes in temperatures or disease.

Precautions - For IVM

- Treatment of powdery, dry soil or light sandy soil when there is little to no likelihood of rainfall soon after may result in off target movement and possible damage to actively growing susceptible crops when soil particles are moved by wind or water. **DO NOT** apply when these soil and environmental conditions are present.
- Spray equipment used to apply **Flumioxazin 51WDG Prime** should not be used to make applications with other products to any desirable plant foliage, as equipment with product residue remaining may result in crop injury to subsequently treated crops or plants.

Pre-Emergence Application

Pre-emergence weed control with **Flumioxazin 51WDG Prime** is most effective when applied to clean, weed free soil surfaces prior to weed emergence. Moisture is necessary to activate **Flumioxazin 51WDG Prime** on soil for residual weed control. Dry weather following application of **Flumioxazin 51WDG Prime** may reduce effectiveness. However, when adequate moisture is received after dry conditions, this product will control susceptible germinating weeds.

When adequate moisture is not received soon after **Flumioxazin 51WDG Prime** is applied to soil, weed control may be improved by utilizing shallow cultivation. If weeds begin to emerge, irrigate (½" of water) or cultivate uniformly with shallow tillage equipment that will not damage the crop. **DO NOT** deep cultivate as this reduces the effectiveness of **Flumioxazin 51WDG Prime**.

Post-Emergence Application

The most effective post-emergence weed control with **Flumioxazin 51WDG Prime** occurs when applied in combination with a surfactant to weeds less than 2 inches in height. Apply **Flumioxazin 51WDG Prime** only to actively growing weeds. Applying this product under conditions that **DO NOT** promote active weed growth will reduce herbicide effectiveness. This product is most effective when applied under sunny conditions at temperatures above 65°F.

Flumioxazin 51WDG Prime is rainfast 1 hour after application. **DO NOT** apply if rain is expected within 1 hour of application or efficacy may be reduced.

Soil Characteristics

Application of **Flumioxazin 51WDG Prime** to soils with high organic matter and/or high clay content may require higher dosages than with soils with low organic matter and/or low clay content. Application to cloddy seedbeds can result in reduced weed control.

Carrier Volume And Spray Pressure

Pre-Emergence Application

To ensure uniform coverage when using boom sprayers, use 10 - 30 gals. of spray solution per acre. When making backpack applications, apply 50 - 100 gals. of spray solution per acre. Ensure that nozzle selection meets manufacturer's gallonage and pressure specifications for pre-emergence herbicide application.

Post-Emergence Application

To ensure thorough coverage when using boom sprayers, apply 15 - 30 gals. of spray solution per acre. Apply 20 - 30 gals. per acre when using a boom sprayer if dense vegetation or heavy residue is present on the soil surface. When applying with a backpack sprayer, apply 1 gal. of spray solution per 500 - 1,000 sq. ft. Ensure nozzle selection meets manufacturer's gallonage and pressure specifications for post-emergence herbicide application.

Carrier Volume And Spray Pressure - For IVM

Pre-Emergence Application

To ensure uniform coverage, use at least 10 gals. of spray solution per acre. Nozzle selection should meet manufacturer's gallonage and pressure specifications for pre-emergence herbicide application.

Post-Emergence Application

To ensure thorough coverage, use at least 15 gals. of spray solution per acre. Use at least 20 gals. per acre if dense vegetation or heavy

residue is present on the soil surface. Nozzle selection should meet manufacturer's gallonage and pressure specifications for post-emergence herbicide application.

Additives

Post-Emergence Application

When applying **Flumioxazin 51WDG Prime** after weeds emerge, mix with an agronomically approved adjuvant. Mix **Flumioxazin 51WDG Prime** with a crop oil concentrate that contains at least 15% emulsifiers and 80% oil or a non-ionic surfactant containing at least 80% active ingredient when applying this product as part of a post-emergence weed control program. Verify mixing compatibility with a jar test before using. **DO NOT** mix **Flumioxazin 51WDG Prime** with a surfactant when applying over the top of dormant woody ornamentals or conifer trees.

A spray-grade nitrogen source (either ammonium sulfate at 2.0 - 2.5 lbs./A or a 28 - 32% nitrogen solution at 1 - 2 qts./A) may be added to the spray mixture along with a crop oil concentrate or non-ionic surfactant to enhance weed control. The addition of a nitrogen source does not replace the need for crop oil concentrate or non-ionic surfactant.

Additives

When applying **Flumioxazin 51WDG Prime** to the foliage of floating or emerged aquatic weeds, mix with an adjuvant approved for use in aquatic sites. Mix **Flumioxazin 51WDG Prime** with a non-ionic surfactant containing at least 80% active ingredient. Follow adjuvant manufacturer's label rates. Verify mixing compatibility with a jar test before using.

Jar Test To Determine Compatibility Of Adjuvants And Flumioxazin 51wdg Prime Herbicide

Perform a jar test before mixing commercial quantities of this product, when using this product for the first time, when using new adjuvants, or when a new water source is being used.

1. Add 1 pt. of water to a quart jar. Make sure that the water is from the same source and is the same temperature as the water used in the spray tank mixing operation.
2. Add 3 grams (approximately 1 level tsp.) of **Flumioxazin 51WDG Prime** for the 8 oz./A rate or 4 grams (approximately 1 ½ tsp.) for 12 oz./A rate to the jar. Gently mix until product disperses.
3. Add 60 mL (4 Tbsp. or 2 fl. oz.) of additive to the quart jar and gently mix.
4. If nitrogen is being used, add 16 mL (1 Tbsp.) of the 28 - 32% nitrogen source to the quart jar. If ammonium sulfate is being used, add 19 grams of AMS to the quart jar in place of the 28 - 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. If any of the following conditions are observed, reconsider the choice of adjuvant:
 - a) Layer of oil or globules on the solution surface.
 - b) Flocculation: Fine particles in suspension or as a layer on the bottom of the jar.
 - c) Clabbering: Thickening texture (coagulated) like gelatin.

Application Equipment

IMPORTANT: Thoroughly clean spray equipment, including all tanks, hoses, booms, screens, and nozzles, after application of **Flumioxazin 51WDG Prime**. Equipment with this product's residue remaining in the system may result in crop injury to subsequently treated crops.

Sprayer Preparation

Before applying **Flumioxazin 51WDG Prime**, clean the spray tank, as well as all hoses and booms 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, are active at very small amounts and can cause crop injury when applied to susceptible crops. Clean spray equipment according to the manufacturer's directions for the last product used before the equipment is used to apply this product. If 2 or more products were tank mixed prior to this product application, follow the most restrictive cleanup procedure on the label of all products.

Mixing Instructions

1. Fill clean spray tank ½ - ¾ of desired level with clean water.
2. To ensure a uniform spray mixture, pre-slurry the required amount of **Flumioxazin 51WDG Prime** with water prior to addition to the spray tank. Use a minimum of 1 gal. of water per 10 oz. of **Flumioxazin 51WDG Prime**.
3. While agitating, slowly add the pre-slurried mixture to the spray tank. Agitation should create a rippling or rolling action on the water surface.
4. If tank mixing **Flumioxazin 51WDG Prime** 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.
5. Add any required adjuvants.
6. Fill spray tank to desired level with water. Continue agitation until spray solution has been applied.
7. Mix only the amount of spray solution that can be applied the day of mixing. Apply **Flumioxazin 51WDG Prime** within 12 hours of mixing.

Mixing Instructions

1. Mix with water having pH of 5 - 7. If pH is higher than 7, use an appropriate buffer to reduce pH to desirable range
2. Fill clean spray tank ½ full of desired level with water and add buffering agent if necessary.
3. Add the required amount of this product to the spray tank while agitating.

4. Fill spray tank to desired level with water. Ensure that this product is thoroughly mixed before making applications. Agitation should continue until spray solution has been applied.
5. Mix only the amount of spray solution that can be applied the day of mixing. Apply this product within 12 hours of mixing.

Sprayer Cleanup

If spray equipment is dedicated to application of aquatic herbicides, be sure to completely drain the spray tank and rinse the application equipment thoroughly, including the inside and outside of the tank and all in-line screens.

Except for dedicated bare ground herbicide application equipment, spray equipment must be cleaned each day following **Flumioxazin 51WDG Prime** application. After **Flumioxazin 51WDG Prime** is applied, use the following steps to clean the spray equipment:

1. Completely drain the spray tank and rinse the sprayer thoroughly, including the inside and outside of the tank and all in-line screens.
2. Fill the tank with clean water and flush all hoses, booms, screens, and nozzles.
3. Top off tank with clean water and household ammonia. Use 1 gal. of 3% household ammonia for every 100 gals. of water.
4. Circulate through sprayer for 5 minutes.
5. Flush all hoses, booms, screens, and nozzles for a minimum of 15 minutes.
6. Loosen any diaphragms before flushing the spray system, allowing cleaning solution to spray through the open diaphragm.
7. Drain tank completely.
8. Add enough clean water to the spray tank to flush hoses, booms, screens, and nozzles for 2 minutes.
9. Remove all nozzles and screens and rinse them with clean water.

Application Equipment

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

Broadcast Application

Apply **Flumioxazin 51WDG Prime** and this product's tank mixes, with ground equipment using standard commercial sprayers equipped with nozzles designed to deliver the desired spray pressure and spray volume.

Band Application

When banding, use proportionately less water and **Flumioxazin 51WDG Prime** per acre.

Backpack Application

When applying **Flumioxazin 51WDG Prime** with a backpack sprayer, follow all above restrictions. Calibrate backpack sprayers to deliver 1 gal. of spray solution per 500 - 1,000 sq. ft.

Application Volume	Amount of Flumioxazin 51WDG Prime to mix in 1 gal. of water	Amount of Flumioxazin 51WDG Prime to mix in 2 gals. of water	Amount of Flumioxazin 51WDG Prime to mix in 3 gals. of water
1 gal. per 500 sq. ft. (= 87 GPA)	0.12 oz. (0.004 lb. a.i.)	0.25 oz. (0.008 lb. a.i.)	0.37 oz. (0.012 lb. a.i.)
1 gal. per 750 sq. ft. (= 58 GPA)	0.17 oz. (0.005 lb. a.i.)	0.34 oz. (0.011 lb. a.i.)	0.52 oz. (0.016 lb. a.i.)
1 gal. per 1,000 sq. ft. (= 43.5 GPA)	0.25 oz. (0.008 lb. a.i.)	0.49 oz. (0.016 lb. a.i.)	0.74 oz. (0.024 lb. a.i.)

Example: Applicator wants to spray 1 gal. of **Flumioxazin 51WDG Prime** solution per 1,000 sq. ft. of ground bed, and wants to mix up 2 gals. of spray solution. Therefore, applicator would mix 0.49 oz. (0.016 lb. a.i.) of **Flumioxazin 51WDG Prime** in 2 gals. of water.

Handgun Application

Applications may also be made using a handgun sprayer. Use a spray volume of at least 40 gals. per acre to insure uniform coverage.

Aerial Application

[Aerial applications are limited to maintaining weed free railroad beds, railroad yards and surrounding areas and military installations.]

To obtain satisfactory weed control with aerial application of **Flumioxazin 51WDG Prime**, coverage must be uniform. When applied by air, this product may not provide adequate control of some submersed weeds. **DO NOT** spray when drift is possible or when wind velocity is more than 10 mph. **DO NOT** spray **Flumioxazin 51WDG Prime** within 200 feet of dwellings, adjacent sensitive crops or environmentally sensitive areas. To obtain satisfactory application and drift, the following directions must be observed.

Volume Pressure

Apply **Flumioxazin 51WDG Prime** in 5 - 10 gals. of water per acre, with a maximum spray pressure of 40 PSI. Application at less than 5 gals. per acre may not provide adequate weed control. Higher gallonage applications provide more consistent weed control.

Nozzles and Nozzle Operation

Use nozzles that produce flat or hollow cone spray patterns. Use non-drip type nozzles including diaphragm type nozzles to avoid unwanted discharge of spray solution. The nozzle 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

Refer to the additive section or the tank mix partners label for adjuvant directions.

CALIBRATION TABLE

Flumioxazin 51WDG Prime Rates Oz./A	Flumioxazin 51WDG Prime Rates Oz./Gal.
8	0.07 (0.002 lb. a.i.)
10	0.01 (0.003 lb. a.i.)
12	0.12 (0.04 lb. a.i.)

IRRIGATION RESTRICTIONS FOLLOWING APPLICATION

Application Method	Application Rate	Average Water Depth	Turf and Landscape Ornamentals	Ornamentals Grown for Production in Greenhouse and Nursery
Surface Spray	6 - 12 oz. per surface acre	Greater than 3 feet	None	5 days
		Less than 3 feet	12 hours	5 days
Subsurface	Less than 200 ppb	N/A	1 day	5 days
	200 - 300 ppb	N/A	2 days	5 days
	300 - 400 ppb	N/A	3 days	5 days

MANDATORY SPRAY DRIFT**Aerial Applications**

- **DO NOT** release spray at a height greater than 10 ft. above the vegetative canopy, unless a greater application height is necessary for pilot safety.
- For all applications, applicators are required to use a medium or coarser spray droplet size (ASABE S572.1).
- The boom length must not exceed 65% of the wingspan for airplanes or 75% of the rotor blade diameter for helicopters.
- Applicators must use ½ swath displacement upwind at the downwind edge of the field.
- Nozzles must be oriented so the spray is directed toward the back of the aircraft.
- **DO NOT** apply when wind speeds exceed 10 miles per hour at the application site.
- **DO NOT** apply during temperature inversions.

Ground Applications

- Apply with the nozzle height recommended by the manufacturer, but no more than 3 feet above the ground or crop canopy.
- For all applications, applicators are required to use a medium or coarser spray droplet size (ASABE S572.1).
- **DO NOT** apply when wind speeds exceed 10 miles per hour at the application site.
- **DO NOT** apply during temperature inversions.

Boom-less Ground Applications:

- Applicators are required to use a medium or coarser droplet size (ASABE S572.1) for all applications.
- **DO NOT** apply when wind speeds exceed 10 miles per hour at the application site.
- **DO NOT** apply during temperature inversions.

SPRAY DRIFT ADVISORIES

THE APPLICATOR IS RESPONSIBLE FOR AVOIDING OFF-SITE SPRAY DRIFT. BE AWARE OF NEARBY NON-TARGET SITES AND ENVIRONMENTAL CONDITIONS.

IMPORTANCE OF DROPLET SIZE

An effective way to reduce spray drift is to apply large droplets. Use the largest droplets that provide target pest control. While applying larger droplets will reduce spray drift, the potential for drift will be greater if applications are made improperly or under unfavorable environmental conditions.

Controlling Droplet Size - Ground Boom

- **Volume** - Increasing the spray volume so that larger droplets are produced will reduce spray drift. Use the highest practical spray volume for the application. If a greater spray volume is needed, consider using a nozzle with a higher flow rate.
- **Pressure** - Use the lowest spray pressure recommended for the nozzle to produce the target spray volume and droplet size.
- **Spray Nozzle** - Use a spray nozzle that is designed for the intended application. Consider using nozzles designed to reduce drift.

Controlling Droplet Size - Aircraft

- **Adjust Nozzles** - Follow nozzle manufacturers recommendations for setting up nozzles. Generally, to reduce fine droplets, nozzles should be oriented parallel with the airflow in flight.

BOOM HEIGHT - Ground Boom

Use the lowest boom height that is compatible with the spray nozzles that will provide uniform coverage. For ground equipment, the boom should remain level with the crop and have minimal bounce.

RELEASE HEIGHT - Aircraft

Higher release heights increase the potential for spray drift. When applying aerially to crops, **DO NOT** release spray at a height greater than 10 ft. above the crop canopy, unless a greater application height is necessary for pilot safety.

SHIELDED SPRAYERS

Shielding the boom or individual nozzles can reduce spray drift. Consider using shielded sprayers. Verify that the shields are not interfering with the uniform deposition of the spray on the target area.

TEMPERATURE AND HUMIDITY

When making applications in hot and dry conditions, use larger droplets to reduce effects of evaporation.

TEMPERATURE INVERSIONS

Drift potential is high during a temperature inversion. Temperature inversions are characterized by increasing temperature with altitude and are common on nights with limited cloud cover and light to no wind. The presence of an inversion can be indicated by ground fog or by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing. Avoid applications during temperature inversions.

WIND

Drift potential generally increases with wind speed. AVOID APPLICATIONS DURING GUSTY WIND CONDITIONS. Applicators need to be familiar with local wind patterns and terrain that could affect spray drift.

Boom-less Ground Applications:

- Setting nozzles at the lowest effective height will help to reduce the potential for spray drift.

Handheld Technology Applications:

- Take precautions to minimize spray drift.

WEEDS CONTROLLED

When **Flumioxazin 51WDG Prime** is applied pre-emergence or post-emergence at specified rates and weed stages, the following grasses and broadleaf weeds are controlled:

Table 1. Weeds Controlled by Flumioxazin 51WDG Prime

COMMON NAME	SCIENTIFIC NAME
Alyssum, Hoary	<i>Berteroa incana</i>
Amaranth	
Palmer	<i>Amaranthus palmeri</i>
Spiny	<i>Amaranthus spinosus</i>
American Burnweed	<i>Erechtites hieracifolia</i>
Barnyardgrass*	<i>Echinochloa crus-galli</i>
Beggarweed, Florida	<i>Desmodium tortuosum</i>
Bittercress, Hairy	<i>Cardamine hirsuta</i>
Bluegrass, Annual*	<i>Poa annua</i>
Burclover, California	<i>Medicago polymorpha</i>
Carpetweed	<i>Mollugo verticillata</i>
Chamberbitter	<i>Phyllanthus urinaria</i>
Chickweed	
Common	<i>Stellaria media</i>
Mouseear	<i>Cerastium vulgatum</i>
Crabgrass	
Large*	<i>Digitaria sanguinalis</i>
Smooth*	<i>Digitaria ischaemum</i>
Southern*	<i>Digitaria ciliaris</i>
Croton, Tropic	<i>Croton glandulosus var. septentrionalis</i>
Dandelion*	<i>Taraxacum officinale</i>
Dogfennel	<i>Eupatorium capillifolium</i>
Doveweed	<i>Murdannia nudiflora</i>
Eclipta	<i>Eclipta prostrata</i>
Filaree, Redstem*	<i>Erodium cicutarium</i>
Foxtail	

COMMON NAME	SCIENTIFIC NAME
Bristly*	<i>Setaria verticillata</i>
Giant*	<i>Setaria faberi</i>
Green*	<i>Setaria viridis</i>
Yellow*	<i>Setaria glauca</i>
Galinsoga, Hairy	<i>Galinsoga ciliata</i>
Geranium, Carolina	<i>Geranium carolinianum</i>
Goosegrass*	<i>Eleusine indica</i>
Groundsel, Common	<i>Senecio vulgaris</i>
Groundsel Tree	<i>Baccharis halimifolia</i>
Henbit	<i>Lamium amplexicaule</i>
Horseweed*	<i>Conyza Canadensis</i>
Indigo, Hairy	<i>Indigofera hirsute</i>
Ivy, Ground*	<i>Glechoma hederacea</i>
Jimsonweed	<i>Datura stramonium</i>
Kochia	<i>Kochia scoparia</i>
Kyllinga, Green*	<i>Kyllinga brevifolia</i>
Lady's Thumb	<i>Polygonum persicaria</i>
Lambsquarters, Common	<i>Chenopodium album</i>
Liverwort	<i>Marchantia polymorpha</i>
Lovegrass, California*	<i>Eragrostis diffusa</i>
Mallow	
Common	<i>Malva neglecta</i>
Little	<i>Malva parviflora</i>
Venice	<i>Hibiscus trionum</i>
Marsh Parsley	<i>Apium leptophyllum</i>
Marsh Yellowcress	<i>Rorippa islandica</i>
Mayweed*	<i>Anthemis cotula</i>
Morningglory	
Entireleaf	<i>Ipomoea hederacea var. integruscula</i>
Ivyleaf	<i>Ipomoea hederacea</i>
Red/Scarlet	<i>Ipomoea coccinea</i>
Smallflower	<i>Jacquemontia tamnifolia</i>
Tall	<i>Ipomoea purpurea</i>
Moss	<i>Bryum spp.</i>
Mulberry Weed	<i>Fatoua villosa</i>
Mustard	
Tumble	<i>Sisymbrium altissimum</i>
Wild	<i>Brassica kaber</i>
Nightshade	
Black	<i>Solanum nigrum</i>
Eastern Black	<i>Solanum ptycanthum</i>
Hairy	<i>Solanum sarrachoides</i>
Northern Willowherb	<i>Epilobium ciliatum</i>
Panicum	
Fall*	<i>Panicum dichotomiflorum</i>
Texas*	<i>Panicum texanum</i>
Parsley Piert	<i>Alchemilla arvensis</i>
Pearlwort, Birdseye*	<i>Sagina procumbens</i>
Pennycress, Field	<i>Thlaspi arvense</i>
Phyllanthus, Longstalked	<i>Phyllanthus tenellus</i>
Pigweed	
Prostrate	<i>Amaranthus blitoides</i>
Redroot	<i>Amaranthus retroflexus</i>
Smooth	<i>Amaranthus hybridus</i>
Tumble	<i>Amaranthus albus</i>
Pineapple-weed*	<i>Matricaria matricarioides</i>
Plantain	
Broadleaf*	<i>Plantago major</i>

COMMON NAME	SCIENTIFIC NAME
Buckhorn*	<i>Plantago lanceolate</i>
Poinsettia, Wild	<i>Euphorbia heterophylla</i>
Puncturevine	<i>Tribulus terrestris</i>
Purslane, Common	<i>Portulaca oleracea</i>
Pusley, Florida	<i>Richardia scabra</i>
Ragweed	
Common	<i>Ambrosia artemisiifolia</i>
Giant	<i>Ambrosia trifida</i>
Redmaids	<i>Calandrinia ciliata</i>
Redweed	<i>Melochia corchorifolia</i>
Rocket, Yellow	<i>Barbarea vulgaris</i>
Senna, Coffee	<i>Cassia occidentalis</i>
Sesbania, Hemp	<i>Sesbania exaltata</i>
Shepherd's Purse	<i>Capsella bursa-pastoris</i>
Sida, Prickly (Teaweed)	<i>Sida spinosa</i>
Signalgrass*	<i>Brachiaria platyphylla</i>
Smartweed, Pennsylvania	<i>Polygonum pennsylvanicum</i>
Sowthistle, Annual	<i>Sonchus oleraceus</i>
Spiderwort, Tropical	<i>Commelina benghalensis</i>
Spurge	
Petty	<i>Euphorbia peplus</i>
Prostrate	<i>Euphorbia humistrata Engelm</i>
Spotted	<i>Euphorbia maculata</i>
Starbur, Bristly*	<i>Acanthospermum hispidum</i>
Tassel-flower	<i>Emilia spp.</i>
Thickhead	<i>Crassocephalum crepidioides</i>
Thistle	
Canada*	<i>Cirsium arvense</i>
Russian	<i>Salsola iberica</i>
Velvetleaf	<i>Abutilon theophrasti</i>
Waterhemp	
Common	<i>Amaranthus rudis</i>
Tall	<i>Amaranthus tuberculatus</i>
Woodsorrel, Yellow*	<i>Oxalis stricta</i>

*pre-emergence control only.

DIRECTIONS FOR USE

TO CONTROL FLOATING AND EMERGED WEEDS USING SURFACE APPLICATION

Flumioxazin 51WDG Prime will control weeds and algae listed in Table 1 when applied as a broadcast spray with appropriate equipment. For best results, apply **Flumioxazin 51WDG Prime** to the foliage of actively growing weeds.

Table 1. Floating and Emerged Weeds

COMMON NAME	SCIENTIFIC NAME
Alligator Weed	<i>Alternanthera philoxeroides</i>
Duckweed*	<i>Lemna spp.</i>
Frog's-bit	<i>Limnobium spongia</i>
Water Fern	<i>Salvinia spp.</i>
Water Lettuce	<i>Pistia stratiotes</i>
Watermeal*	<i>Wolffia spp.</i>
Water Pennywort	<i>Hydrocotyle spp.</i>
Filamentous Algae	<i>Pithophora</i>
Filamentous Algae	<i>Cladophora</i>

*200 ppb water concentration is required to treat duckweed and watermeal – see **DIRECTIONS FOR USE TO CONTROL SUBMERSED AND FLOATING WEEDS USING SUBSURFACE APPLICATIONS** section for additional application information.

Surface Application

Flumioxazin 51WDG Prime product as a broadcast spray at 6 - 12 ounces of formulated product per acre plus an adjuvant approved for use in aquatics.

Flumioxazin 51WDG Prime is a contact herbicide that quickly degrades in the water column so plants that **DO NOT** initially come in contact with the herbicide will not be controlled. Apply **Flumioxazin 51WDG Prime** in a minimum of 30 gallons of water per acre to all areas of the water body where weeds exist. Coverage is essential for effective control as all floating weeds need to be exposed to lethal concentrations in all parts of the water body. Any untreated escapes or re-introductions of plants that were not treated will reestablish in areas where surface weeds had previously been controlled. If a second application is required to provide control, make the treatment once weeds are first observed, but no sooner than 28 days after the last treatment.

Application of **Flumioxazin 51WDG Prime** during early morning hours enhances weed control. When applying to densely packed actively growing surface weeds, ensure adequate coverage. Rapid decomposition of vegetation resulting from herbicide treatment can result in loss of oxygen in water. A sudden decrease in dissolved oxygen can result in fish suffocation. If aquatic vegetation is dense, treat floating surface weeds in sections to avoid a rapid decrease in dissolved oxygen.

Flumioxazin 51WDG Prime may be tank mixed with 2,4-D, diquat, glyphosate or other registered foliar applied herbicides for enhanced control of floating and emergent weeds.

Consult a manufacturer's label for specific rate restrictions and weeds controlled. Always follow the most restrictive label restrictions and precautions for all products used when making an applications involving tank mixes.

Application Equipment

Apply **Flumioxazin 51WDG Prime** with sprayers equipped with nozzles designed to deliver the desired spray pressure and spray volume. Apply by backpack or handgun sprayer, airboat, helicopter, airplane or other application equipment that will ensure thorough coverage of target plant foliage.

Restrictions:

- **DO NOT** apply more than 12 oz. (0.383 lb. a.i.) per acre per single application.
- **DO NOT** apply more than 24 oz. (0.765 lb. a.i.) per acre per year.
- **DO NOT** apply more than 2 applications per acre per year.
- **DO NOT** re-apply **Flumioxazin 51WDG Prime** within 28 days.

DIRECTIONS FOR USE IN ESTABLISHED CONTAINER AND FIELD GROWN CONIFERS (INCLUDING CHRISTMAS TREES)

Apply **Flumioxazin 51WDG Prime** as a single or split application to established container and field grown conifers, which includes applications to Christmas tree plantations. The conifers listed in Table 2 have exhibited tolerance to **Flumioxazin 51WDG Prime** only when the product is applied to dormant or hardened off plant material. If applied over the top of plant foliage, apply **Flumioxazin 51WDG Prime** before spring bud break or after conifers have sufficiently hardened off. During periods of cool, cloudy weather, use caution to ensure conifers have hardened off prior to herbicide application. **DO NOT** apply to conifers within 1 year of seedling emergence.

Pre-Emergence Application

Apply 8 - 12 oz. (0.25 - 0.38 lb. a.i./A) of **Flumioxazin 51WDG Prime** per broadcast acre before weeds emerge. Apply to weed free, established conifers grown in containers or in the field (in ground). If possible, irrigate treated area with 0.5 - 0.75 inch of water immediately following application. Spray **Flumioxazin 51WDG Prime** directly over conifers listed in Table 2, provided bud break has not occurred or plants are hardened off. Needle burn may be observed on new flush if plants are actively growing at time of application. However, **Flumioxazin 51WDG Prime** will typically not effect subsequent growth. If conifers are not dormant or hardened off at time of application, and foliar injury cannot be tolerated, apply **Flumioxazin 51WDG Prime** as a directed spray, taking care to minimize direct contact or drift of sprays onto foliage. Mechanically incorporating **Flumioxazin 51WDG Prime** after application will disturb soil surfaces, which may reduce herbicidal efficacy. When applied before weed germination, **Flumioxazin 51WDG Prime** will control broadleaf and grassy weeds listed in Table 1.

Post-Emergence Application

Apply 8 - 12 oz. (0.25 - 0.38 lb. a.i./A) of **Flumioxazin 51WDG Prime** per broadcast acre after weeds have emerged. **Flumioxazin 51WDG Prime** may be sprayed directly over conifers listed in Table 2, provided bud break has not occurred or plants are hardened off. Needle burn may be observed on new flush if plants are actively growing at time of application. However, **Flumioxazin 51WDG Prime** will typically not affect subsequent growth. If conifers are not dormant or hardened off at the time of application, and foliar injury cannot be tolerated, apply **Flumioxazin 51WDG Prime** as a directed spray, taking care to minimize direct contact or drift of sprays onto foliage.

If applied when weeds are actively growing and no larger than 2 inches in height, **Flumioxazin 51WDG Prime** will provide post-emergence control of broadleaf weeds and grasses listed in Table 1. Post-emergence control of **Flumioxazin 51WDG Prime** may be more effective with certain weed species, and may not control mature, stressed or hardened off weeds that are not actively growing at the time of application.

Tank Mixtures For Container And Field Grown Conifers

Tank mixing **Flumioxazin 51WDG Prime** with other pre-emergence and post-emergence herbicides registered for use on conifers may provide a broader spectrum of weed control than **Flumioxazin 51WDG Prime** applied alone, **Flumioxazin 51WDG Prime** may also be applied as part of a post-emergence burndown program for control of annual and perennial weeds. Tank mixing **Flumioxazin 51WDG Prime** with glyphosate will increase the speed of burndown compared to glyphosate applied alone.

Flumioxazin 51WDG Prime may be tank mixed with products containing the following active ingredients labeled for use in conifers:

Clethodim	glyphosate*	oryzalin	proflumicafone	simazine*
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*DO NOT apply glyphosate or simazine to containerized ornamentals.

IMPORTANT: It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

Tolerant Conifers

Apply **Flumioxazin 51WDG Prime** to the conifer species listed in Table 2. If a desired conifer species is not listed in Table 2, evaluate the safety of **Flumioxazin 51WDG Prime** on a small number of plants under commercial growing conditions, and monitor plant response for 4 - 6 weeks for phytotoxicity. Testing **Flumioxazin 51WDG Prime** on a small number of plants will determine if this product can be used safely on a widespread basis.

Restrictions:

- **DO NOT** apply more than 12 oz. (0.383 lb. a.i.) per acre per single application.
- **DO NOT** apply more than 24 oz. (0.765 lb. a.i.) per acre per year.
- **DO NOT** apply more than 2 applications at 12 oz. (0.383 lb. a.i./A) or 3 applications at 8 oz. (0.255 lb. a.i.) per acre per year.
- **DO NOT** re-apply **Flumioxazin 51WDG Prime** within 30 days.

Table 2. Tolerant Conifers

COMMON NAME	SCIENTIFIC NAME
Arborvitae	
American	<i>Thuja occidentalis</i>
Oriental	<i>Thuja orientalis</i>
Fir	
Concolor	<i>Abies concolor</i>
Cork Bark	<i>Abies lasiocarpa</i>
Douglas	<i>Pseudotsuga menziesii</i>
Fraser	<i>Abies fraseri</i>
Grand	<i>Abies grandis</i>
Noble	<i>Abies procera</i>
Turkish	<i>Abies bornmuelleriana</i>
Hemlock	
Eastern	<i>Tsuga canadensis</i>
Western	<i>Tsuga heterophylla</i>
Juniper	
Blue Star	<i>Juniperus scopulorum</i>
Creeping	<i>Juniperus horizontalis</i>
Japanese Garden	<i>Juniperus chinensis</i>
Tamarix	<i>Juniperus sabina</i>
Pine	
Austrian	<i>Pinus nigra</i>
Eastern White	<i>Pinus strobus</i>
Jack	<i>Pinus banksiana</i>
Japanese Black	<i>Pinus thunbergiana</i>
Loblolly	<i>Pinus taeda</i>
Lodgepole	<i>Pinus contorta</i>
Longleaf	<i>Pinus palustris</i>
Mugo	<i>Pinus mugo</i>
Ponderosa	<i>Pinus ponderosa</i>
Sand	<i>Pinus clausa</i>
Scotch	<i>Pinus sylvestris</i>
Shortleaf	<i>Pinus echinata</i>
Slash	<i>Pinus elliotii</i>
Virginia	<i>Pinus virginiana</i>
Spruce	
Blue	<i>Picea pungens</i>
Dwarf Alberta	<i>Picea glauca conica</i>
Norway	<i>Picea abies</i>
Sitka	<i>Picea sitchensis</i>
Yew	
English	<i>Taxus baccata</i>
Japanese	<i>Taxus cuspidata</i>

DIRECTIONS FOR USE
TO CONTROL SUBMERSED AND FLOATING WEEDS USING SUBSURFACE APPLICATIONS

This product controls submersed and floating weeds listed in Table 2, **Submersed and Floating Weeds Controlled by Subsurface Application**, when applied subsurface with appropriate equipment.

Table 2. Submersed and Floating Weeds Controlled by Subsurface Application

COMMON NAME	SCIENTIFIC NAME
Coontail	<i>Ceratophyllum demersum</i>
Duckweed*	<i>Lemna</i> spp.
Fanwort	<i>Cabomba caroliniana</i>
Hydrilla	<i>Hydrilla verticillata</i>
Hygrophila	<i>Hygrophila polysperma</i>
Naiad, Southern	<i>Najas guadalupensis</i>
Pondweed, Curlyleaf	<i>Potamogeton crispus</i>
Pondweed, Sago	<i>Potamogeton pectinatus</i>
Pondweed, Variable-Leaf	<i>Potamogeton diversifolius</i>
Water Fern	<i>Salvinia</i> spp.
Water Lettuce	<i>Pistia stratiotes</i>
Watermeal	<i>Wolffia</i> spp.
Watermilfoil, Eurasian	<i>Myriophyllum spicatum</i>
Watermilfoil, Variable-Leaf	<i>Myriophyllum heterophyllum</i>

Subsurface Application

Apply this product at a rate that will produce an initial concentration of 200 to 400 ppb (of active ingredient flumioxazin) in the water column.

This product is rapidly absorbed by target plants, but also breaks down quickly in water with a pH greater than 8.5. The pH of water surrounding mats of submersed vegetation can exceed 8.5 by early to mid-day, due to photosynthetic processes. Application of this product under these conditions may provide only partial weed control, and regrowth is likely. For best control, apply this product in a minimum of 30 gallons of water per acre in the early morning to actively growing weeds and early in the season before surface matting occurs. Complete coverage and sufficient contact time of submersed weeds with this product is required for optimal performance. Application of this product with subsurface trailing hoses designed to distribute the herbicide within the plant stand will provide more effective and longer term control of submersed weeds. Use Table 3, **Subsurface Application Rates** to determine the amount of this product needed to achieve desired concentration at different water depths. Use higher concentrations when weed biomass is heavy and/or weeds are more mature and topped out. Any untreated plants that are left in the water column can re-infest treated areas that had previously been controlled. If a second application is required to provide control, it is recommended that a treatment be made once the return of these weeds is first observed, but no sooner than 28 days after the last treatment.

When applying this product to densely packed actively growing submersed weeds, a rapid decomposition of vegetation resulting from herbicide treatment can result in loss of oxygen in water. A sudden decrease in dissolved oxygen can result in fish suffocation. If aquatic vegetation is dense, treat submersed weeds in sections to avoid a rapid decrease in dissolved oxygen.

This product may be tank mixed with other registered submersed applied herbicides for enhanced control of submersed and floating weeds.

Application Equipment For Water Column Treatment

To improve distribution in the water column and ensure adequate coverage, when possible apply this product with subsurface trailing hoses in order to place the herbicide under the surface and throughout the biomass of aquatic vegetation. Keep swath width to a minimum in order to maximize contact with submersed aquatic vegetation. In small shallow water bodies, surface sprays may be required to apply this product. Apply by backpack or handgun sprayer or other application equipment that will ensure adequate coverage of target plant.

Information On *Hydrilla* Control In Florida

Apply this product as a subsurface treatment for *Hydrilla* control. For best control of *Hydrilla* apply during the late Winter/early Spring and/or early to late Fall. Efficacy of this product will be enhanced at these timings due to lower potential biomass present and lower pH of the water. If applied to mature topped out *Hydrilla*, this product will cause some discoloration and loss of growing tips, but regrowth will be rapid.

Tank mix this product with other registered herbicides, especially if *Hydrilla* is approaching maturity or biomass is heavy.

Table 3. Subsurface Application Rates

DO NOT exceed 400 ppb of this product during any one application.

Water Depth (feet)	Pounds of Flumioxazin 51WDG Prime Required Per Surface Acre to Achieve Desired Water Concentration		
	200 ppb	300 ppb	400 ppb
1	1.1 (0.561 lb. a.i.)	1.6 (0.816 lb. a.i.)	2.1 (1.071 lbs. a.i.)

Water Depth (feet)	Pounds of Flumioxazin 51WDG Prime Required Per Surface Acre to Achieve Desired Water Concentration		
	200 ppb	300 ppb	400 ppb
2	2.1 (1.071 lbs. a.i.)	3.2 (1.632 lbs. a.i.)	4.2 (2.142 lbs. a.i.)
3	3.2 (1.632 lbs. a.i.)	4.8 (2.448 lbs. a.i.)	6.4 (3.264 lbs. a.i.)
4	4.2 (2.142 lbs. a.i.)	6.4 (3.264 lbs. a.i.)	8.5 (4.335 lbs. a.i.)
5	5.3 (2.703 lbs. a.i.)	8.0 (4.08 lbs. a.i.)	10.6 (5.406 lbs. a.i.)
6	6.4 (3.264 lbs. a.i.)	9.5 (4.845 lbs. a.i.)	12.7 (6.477 lbs. a.i.)
7	7.4 (3.774 lbs. a.i.)	11.1 (5.661 lbs. a.i.)	14.8 (7.548 lbs. a.i.)

Example: To achieve an initial concentration of 200 ppb of flumioxazin in a 4 foot deep water column, apply 4.2 lbs. (2.142 lbs. a.i.) of this product per surface acre.

Restrictions:

- **DO NOT** apply more than 400 ppb of this product per single application.
- **DO NOT** apply more than 90.58 lb. a.i. per year.
- **DO NOT** apply more than 12 applications per acre per year.
- **DO NOT** re-apply **Flumioxazin 51WDG Prime** within 28 days.
- Not for homeowner use.

DIRECTIONS FOR USE

IN CONTAINER AND FIELD GROWN DECIDUOUS TREES AND NON-BEARING FRUIT AND NON-BEARING NUT TREES

Apply **Flumioxazin 51WDG Prime** as single or split application to container and field grown deciduous trees with an established root system. The deciduous trees listed in Table 3 have exhibited tolerance to **Flumioxazin 51WDG Prime** only when applied to the soil and base of plants. Application of **Flumioxazin 51WDG Prime** to deciduous foliage or green bark may result in unacceptable injury.

Apply **Flumioxazin 51WDG Prime** to established (or transplanted) container and field grown deciduous trees. **DO NOT** apply to trees that are less than 1 year old or have been transplanted less than 1 year, unless completely protected by non-porous wraps, grow tubes, waxed protectors or other forms of protection to young foliage and/or bark. **DO NOT** harvest fruit or nuts from treated trees within 1 year of application.

IMPORTANT: Direct application of **Flumioxazin 51WDG Prime** to the soil surface and away from plant foliage and bark. Avoid direct spray contact on plant surfaces, foliage and green bark or injury may result. Application of **Flumioxazin 51WDG Prime** after bud swell may cause injury if herbicide contacts foliage. **DO NOT** apply under environmental conditions that favor drift to non-targeted areas.

Pre-Emergence Application

Apply 8 - 12 oz. (0.25 - 0.38 lb. a.i./A) of **Flumioxazin 51WDG Prime** per broadcast acre as a pre-emergence (to weed emergence) application. Apply **Flumioxazin 51WDG Prime** to weed free deciduous trees grown in containers or in the field (in-ground). If possible, irrigate treated area with 0.5 to 0.75 inch of water immediately following application and apply **Flumioxazin 51WDG Prime** to the soil surface and base of deciduous trees, provided that direct and indirect (drift) applications to plant foliage, flowers and green bark does not occur. Mechanically incorporating **Flumioxazin 51WDG Prime** will disturb soil surfaces, which may reduce herbicidal efficacy. Use spray shields that limit exposure of foliage and bark to **Flumioxazin 51WDG Prime**. When applied before weed germination, this product will control broadleaf and grassy weeds listed in Table 1.

Post-Emergence Application

Apply 8 - 12 oz. (0.25 - 0.38 lb. a.i./A) of **Flumioxazin 51WDG Prime** per broadcast acre plus an adjuvant (0.25% v/v non-ionic surfactant or 1 qt./A crop oil concentrate). Make post-emergence (to weed emergence) applications of **Flumioxazin 51WDG Prime** when weeds are actively growing and are no larger than 2 inches in height. The addition of a surfactant enhances **Flumioxazin 51WDG Prime** activity on emerged weeds. Thorough spray coverage is necessary to maximize the post-emergence activity of **Flumioxazin 51WDG Prime**. When applied after weed germination, **Flumioxazin 51WDG Prime** will provide pre-emergence and post-emergence control of broadleaf weeds and grasses listed in Table 1. If plant injury is a concern, use a spray shield to limit the exposure of trees to **Flumioxazin 51WDG Prime**.

Post-emergence control of **Flumioxazin 51WDG Prime** may be more effective with certain weed species, and may not control mature, stressed or hardened off weeds that are not actively growing at the time of application.

Tank Mixtures For Field And Container Grown Deciduous Trees

Tank mixing **Flumioxazin 51WDG Prime** with other pre-emergence and post-emergence herbicides registered for use on deciduous trees may provide a broader spectrum of weed control than this product alone. **Flumioxazin 51WDG Prime** may also be applied as part of a post-emergence burndown program of control of annual and perennial weeds. Tank mixing **Flumioxazin 51WDG Prime** with glyphosate will increase the speed of burndown compared to glyphosate applied alone. Tank mix **Flumioxazin 51WDG Prime** with products containing the following active ingredient labeled for use in deciduous trees:

Clethodim	glyphosate*	metolachlor	oryzalin
Pendimethalin	prodiamine	simazine*	

***DO NOT** apply glyphosate or simazine to containerized plants.

IMPORTANT: Completely read and follow the label of any herbicides mixed with **Flumioxazin 51WDG Prime**. When tank mixing this product with other herbicides, always follow the most restrictive limitations and precautions on the label of any tank mix partner.

Tolerant Deciduous Trees, Non-Bearing Fruit And Non-Bearing Nut Trees

Apply **Flumioxazin 51WDG Prime** as a directed spray to the deciduous, non-bearing fruit and non-bearing nut trees species listed in Table 3. If a desired tree species is not listed in Table 3, evaluate the safety of **Flumioxazin 51WDG Prime** on a small number of plants under commercial growing conditions and monitor plant response for 4 - 6 weeks for phytotoxicity. Testing this product on a small number of plants will determine if this product can be used safely on a widespread basis.

Restrictions:

- **DO NOT** apply more than 12 oz. (0.383 lb. a.i.) per acre per single application.
- **DO NOT** apply more than 24 oz. (0.765 lb. a.i.) per acre per year.
- **DO NOT** apply more than 2 applications at 12 oz. (0.383 lb. a.i.) or 3 applications at 8 oz. (0.255 lb. a.i.) per acre per year.
- **DO NOT** re-apply **Flumioxazin 51WDG Prime** within 30 days.

Table 3. Tolerant Deciduous Tree Species

COMMON NAME	SCIENTIFIC NAME
Apricot*	<i>Prunus</i> spp.
Ash	<i>Fraxinus</i> spp.
Birch	<i>Betula</i> spp.
Buckeye	<i>Aesculus</i> spp.
Cherry*	<i>Prunus</i> spp.
Chestnut	<i>Castanea</i> spp.
Citrus*	<i>Citrus</i> spp.
Dogwood	<i>Comus</i> spp.
Eucalyptus	<i>Eucalyptus</i> spp.
Ginkgo	<i>Ginkgo</i> spp.
Hawthorn	<i>Crataegus</i> spp.
Honeylocust	<i>Gleditsia</i> spp.
Larch	<i>Larix</i> spp.
Lilac	<i>Syringa</i> spp.
Maple**	<i>Acer</i> spp.
Myrtle, Crepe	<i>Lagerstroemia indica</i>
Oak	<i>Quercus</i> spp.
Poplar	<i>Populus</i> spp.
Peach*	<i>Prunus</i> spp.
Plum*	<i>Prunus</i> spp.
Pecan*	<i>Carya</i> spp.
Redbud	<i>Cercis canadensis</i>
Sweetgum	<i>Liquidambar styraciflua</i>
Sycamore	<i>Platanus</i> spp.
Walnut, Black	<i>Juglans nigra</i>
Willow	<i>Salix</i> spp.

*Non-bearing trees only.

**Not for use on maple trees used for production of maple sap or syrup.

DIRECTIONS FOR USE**AROUND ESTABLISHED WOODY LANDSCAPE ORNAMENTALS AND TO MAINTAIN BARE GROUND NON-CROP AREAS**

In residential and commercial landscapes, application of **Flumioxazin 51WDG Prime** must be done by commercial licensed applicators. Application of **Flumioxazin 51WDG Prime** in the vicinity of ornamental plants is limited to directed sprays around well-established woody shrubs and trees including azalea, euonymus, holly, and the conifers and deciduous trees listed in Tables 2 and 3.

Apply **Flumioxazin 51WDG Prime** to maintain bare ground in non-crop areas in apartment complexes, fence rows, gravel surfaces, ground mats, golf courses, lumberyards, office complexes, parks, parking areas, recreational sites, schools, sidewalks, storage areas and other similar industrial sites. **DO NOT** apply **Flumioxazin 51WDG Prime** within any enclosed structure in residential or commercial landscapes.

Flumioxazin 51WDG Prime offers post-emergence and residual control of susceptible grasses and broadleaf weeds, as well as additional mode of action to assist in the control of resistant weeds. The length of residual control is dependent on the rate applied, rainfall and temperature. Length of residual control will decrease as temperature and precipitation increase.

IMPORTANT: Contact with spray or spray drift of this product may cause severe injury or destruction of certain desirable plants, especially herbaceous species including bedding plants or direct seeded annual and perennial flowers. Therefore, **DO NOT** apply this product over the top of ornamental plants growing in the landscape, and **DO NOT** allow spray of this product to contact, drift or splash from soil onto the foliage, green stems, exposed roots or fruit of desirable plants. Avoid application of this product under conditions that favor drift of sprays onto desired ornamentals or turfgrass. Limit the plant exposure to this product applying this product near desirable plants.

DO NOT apply this product around landscape ornamentals until plants have been actively growing for at least 30 days after transplanting, or for at least 2 months before ornamentals will be planted into treated areas.

Pre-Emergence Application (No Weeds Are Present)

Mix 0.12 – 0.25 oz. (0.004 – 0.008 lb. a.i.) of **Flumioxazin 51WDG Prime** per gal. (10 oz./A) of spray solution, and apply 1 gal. of spray solution to 500 - 1,000 sq. ft. (10 oz./A) prior to weed germination (see **CALIBRATION TABLE** for backpack sprayers). Apply **Flumioxazin 51WDG Prime** to weed free soil, mulch or gravel surfaces. Moisture is necessary to activate **Flumioxazin 51WDG Prime** on soil for residual weed control. When applied before weed germination, this product will control the broadleaf weeds and grasses listed in Table 1.

Established landscape ornamentals have shown tolerance to **Flumioxazin 51WDG Prime** only when applied to the soil at the base of the plant. For maximum plant safety when using around desirable ornamentals, direct applications of **Flumioxazin 51WDG Prime** to the soil, and leave a sufficient untreated buffer to ensure spray solution does not contact desired plants. **DO NOT** harvest fruit or nuts from treated trees within 1 year of application.

Post-Emergence Application (Weeds Are Present)

Mix 0.12 – 0.25 oz. (0.004 – 0.008 lb. a.i.) of **Flumioxazin 51WDG Prime** per gal. (10 oz./A) and apply 1 gal. of spray solution to 500 - 1,000 sq. ft. to actively growing weeds (see **CALIBRATION TABLE** for backpack sprayers). Tank mixing **Flumioxazin 51WDG Prime** with glyphosate will increase the spectrum of post-emergent weed control over this product alone, provide faster post-emergence weed control than glyphosate alone, and provide pre and post-emergence control of the broadleaf weeds and grasses listed in Table 1.

Established landscape ornamentals have shown tolerance to applications of **Flumioxazin 51WDG Prime** plus glyphosate only when applied to the soil at the base of the plant, and sprays **DO NOT** directly contact or drift onto desirable plants. For maximum plant safety when using around desirable ornamentals, direct applications of **Flumioxazin 51WDG Prime** plus glyphosate towards the soil, and leave a sufficient non-treated buffer to ensure spray solution does not contact desired plants.

Thorough spray coverage of weeds is necessary to maximize weed control. Spray coverage must be uniform, but **DO NOT** spray to the point of runoff.

DO NOT harvest fruit or nuts from treated trees within 1 year of application.

IMPORTANT: Completely read and follow the glyphosate label. When tank mixing **Flumioxazin 51WDG Prime** with other products, always follow the most restrictive use conditions on either label.

Restriction:

- **DO NOT** apply more than 10 oz. (0.32 lb. a.i.) per acre per single application.
- **DO NOT** apply more than 20 oz. (0.64 lb. a.i.) per acre per year.
- **DO NOT** apply more than 2 applications per year.
- **DO NOT** re-apply **Flumioxazin 51WDG Prime** within 30 days.

DIRECTIONS FOR USE

TO MAINTAIN BARE GROUND NON-CROP AREAS IN AND AROUND ORNAMENTAL NURSERIES

Flumioxazin 51WDG Prime, when used as directed, can be used for non-selective vegetation control to maintain bare ground non-crop areas that must be kept weed-free. Apply **Flumioxazin 51WDG Prime** only to:

- Bare ground areas around buildings and other structures. **DO NOT** apply within any enclosed structure.
- Bare ground along fence rows.
- Gravel surfaces and driveways.
- Ground matting and gravel pads prior to the addition of containerized plants (conifers, deciduous trees and ornamentals).

IMPORTANT: Follow all applicable directions as outlined above under Product Information. See Table 1 for a list of grasses and broadleaf weeds controlled by **Flumioxazin 51WDG Prime**.

Flumioxazin 51WDG Prime offers residual and post-emergence control of susceptible grasses and broadleaf weeds as well as additional mode of action to assist in the control of resistant weeds. 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.

Pre-Emergence Application

Apply 8 - 12 oz. (0.25 - 0.38 lb. a.i./A) of **Flumioxazin 51WDG Prime** per broadcast acre as a pre-emergence application. Make pre-emergence (to weed emergence) applications of **Flumioxazin 51WDG Prime** to weed free surfaces. Moisture is necessary to activate **Flumioxazin 51WDG Prime** for residual weed control. Dry weather following application of **Flumioxazin 51WDG Prime** may reduce effectiveness. However, when adequate moisture is received after dry conditions, this product will control susceptible germinating weeds.

Post-Emergence Application

Apply 8 - 12 oz. (0.25 - 0.38 lb. a.i./A) of **Flumioxazin 51WDG Prime** per broadcast acre plus a surfactant (0.25% v/v non-ionic surfactant or 1 qt./A crop oil concentrate). The addition of a surfactant enhances **Flumioxazin 51WDG Prime** activity on emerged weeds.

Thorough spray coverage is necessary to maximize the post-emergence activity of this product. Emerged weeds are controlled post-emergence with **Flumioxazin 51WDG Prime**, however, translocation of this product within a weed is limited, and control is affected by spray coverage and by the addition of a surfactant. The most effective post-emergence weed control with **Flumioxazin 51WDG Prime** occurs when applied in combination with a surfactant to weeds less than 2 inches in height.

Restrictions:

- **DO NOT** apply more than 12 oz. (0.383 lb. a.i.) per acre per single application.
- **DO NOT** apply more than 24 oz. (0.765 lb. a.i.) per acre per year.
- **DO NOT** apply more than 2 applications at 12 oz. (0.383 lb. a.i.) or 3 applications at 8 oz. (0.255 lb. a.i.) per acre per year.
- **DO NOT** re-apply **Flumioxazin 51WDG Prime** within 30 days.

DIRECTIONS FOR USE TO MAINTAIN BARE GROUND NON-CROP AREAS

Flumioxazin 51WDG Prime can be used for non-selective vegetation management to maintain bare ground non-crop areas that must be kept free of weed. Apply **Flumioxazin 51WDG Prime** only to:

- Bare ground areas under guard rails, above-ground pipelines, railroad beds, railroad yards and surrounding areas.
- Bare ground areas in parking lots and storage areas, industrial plant sites, substations, pumping stations, and tank farms.
- Bare ground areas of airports, brick yards, industrial plant sites, lumber yards, military installations, and storage areas.
- Bare ground areas around farm buildings and along ungrazed fence rows, wind breaks and shelter belts.
- Improved roadside areas, road surfaces, and gravel shoulders.

Follow all applicable directions as outlined above under Product Information. See Table 1 for a list of broadleaf weeds and grasses controlled by **Flumioxazin 51WDG Prime**.

Flumioxazin 51WDG Prime provides residual and post-emergence control of susceptible broadleaf and grass weed species as well as additional mode of action to assist in the control of ALS (acetolactate synthase) resistant weeds. The timing of residual of control depends on the application rate, as well as on rainfall and temperature conditions. The length of control will be reduced as temperature and precipitation increase.

Pre-Emergence Application

Make a pre-emergence application of 8 to 12 oz. (0.25 - 0.38 lb. a.i./A) of **Flumioxazin 51WDG Prime** per broadcast acre. Make pre-emergence (up to weed emergence) applications of **Flumioxazin 51WDG Prime** to surfaces that are free of weeds. Pre-emergence applications of **Flumioxazin 51WDG Prime** must be completed before weeds emerge. For residual weed control and optimal performance on soil, moisture is necessary to activate **Flumioxazin 51WDG Prime**. Dry weather or lack of moisture following application of **Flumioxazin 51WDG Prime** may reduce effectiveness. When adequate moisture is received after dry conditions, this product will control susceptible weeds that are germinating.

Post-Emergence Application

Make a post-emergence application of 8 to 12 oz. (0.25 - 0.38 lb. a.i./A) of **Flumioxazin 51WDG Prime** per broadcast acre plus a surfactant (0.25% v/v non-ionic surfactant or 1 qt./A crop oil concentrate). Adding a surfactant enhances the activity of **Flumioxazin 51WDG Prime** on emerged weeds. Thorough spray coverage is necessary to maximize the post-emergence activity of this product. Weeds that have emerged are controlled with a post-emergence application of **Flumioxazin 51WDG Prime**. However, translocation of this product within a weed is limited, and control is improved by ensuring thorough spray coverage and by the addition of a surfactant. The most effective post-emergence weed control with **Flumioxazin 51WDG Prime** results when application is made in combination with a surfactant and to weeds that are less than 2 inches in height.

Tank Mix Applications

Tank mixtures with other pre- and post-emergence herbicides registered for use in non-crop areas provide a broader spectrum of weed control in addition to weeds controlled by **Flumioxazin 51WDG Prime** used alone, **Flumioxazin 51WDG Prime** must be tank mixed with other herbicides registered for use in bare ground vegetation management, (non-crop uses) including, but not limited to those products listed below.

Tank Mixture Combinations For Non-Selective Vegetation Management Weed Control

2,4-D	Glyphosate	Norflurazon	Proflam
Bromacil	Hexazinone	Oryzalin	Simazine
Chlorsulfuro	Imazapic	Pendimethalin	Sulfometuron-methyl
Clopyralid	Imazapyr	Picloram	Tebuthiuron
Dicamba	Metsulfuron-methyl	Pramitol	Triclopyr
Diuron			

IMPORTANT:

It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

Restrictions:

- **DO NOT** apply more than 12 oz. (0.383 lb. a.i.) per acre per single application.
- **DO NOT** apply more than 24 oz. (0.765 lb. a.i.) per acre per year.
- **DO NOT** make more than 2 applications at 12 oz. (0.383 lb. a.i.) or 3 applications at 8 oz. (0.255 lb. a.i.) per acre per year.
- **DO NOT** make an additional application of **Flumioxazin 51WDG Prime** within 30 days.

**DIRECTIONS FOR USE
IN CONIFER RE-FORESTATION SITES FOLLOWING TIMBER HARVEST**

Not for use in California.

Flumioxazin 51WDG Prime is a pre-emergence and post-emergence herbicide for control of selected grass and broadleaf weeds in conifer re-forestation sites following timber harvest operations. Apply **Flumioxazin 51WDG Prime** as a site preparation treatment prior to transplanting of conifers or as a conifer release treatment after stand establishment.

Site Preparation — Application Before Transplanting

Apply 8 - 12 oz. of **Flumioxazin 51WDG Prime** per acre. Transplant operations must take place at least 3 months after application. To obtain optimal weed control, apply **Flumioxazin 51WDG Prime** before weed emergence or after a burndown herbicide has controlled existing vegetation. If existing weed canopy is less than 40%, tank mix **Flumioxazin 51WDG Prime** with a burndown herbicide to provide pre-emergence weed control.

Apply **Flumioxazin 51WDG Prime** in at least 10 gals. of water per acre to achieve uniform spray coverage using ground or aerial spray equipment.

Conifer Release Treatments — Applications Only Within 3 Years After Transplanting

Apply 8 - 12 oz. of **Flumioxazin 51WDG Prime** per acre over the top of trees prior to budbreak in the spring or after dormancy in fall. **DO NOT** apply **Flumioxazin 51WDG Prime** over the top of trees after budbreak or needle spotting and defoliation may occur. **Flumioxazin 51WDG Prime** should not affect new growth of trees. See Table 4 for a list of tolerant conifers for over the top treatments.

TANK MIXING — Conifer Release Treatments

Certain liquid formulations of other pesticides may increase the post-emergence activity of **Flumioxazin 51WDG Prime**, but may also increase the potential for injury when applied over the top of various plants. Therefore, tank mixtures of these materials with **Flumioxazin 51WDG Prime** may be more injurious than this product applied alone and need to be tested to determine if they can be used safely on a widespread basis.

ADJUVANTS — Conifer Release Treatments

When using as a Conifer Release Treatment, **DO NOT** mix **Flumioxazin 51WDG Prime** with any adjuvant or fertilizer.

IMPORTANT: When applied as directed, the conifers listed in Table 4 have shown tolerance to **Flumioxazin 51WDG Prime**. However, **Flumioxazin 51WDG Prime** is a very active herbicide and the user must exercise responsible judgment and caution until familiarity is gained with this product. If a desired conifer species is not listed in Table 4, evaluate the safety of **Flumioxazin 51WDG Prime** on a small number of plants under commercial growing conditions, and monitor plant response for 4 - 6 weeks for phytotoxicity. Test this product on a small number of plants to determine if this product can be used safely on a widespread basis. **DO NOT** apply **Flumioxazin 51WDG Prime** over the top of conifers until trees have been growing in the treated area for at least 1 year. The use of nylon mesh wraps, commonly used to deter animal browsing, may increase plant injury if placed on plants after over the top application of **Flumioxazin 51WDG Prime**.

Restrictions:

- **DO NOT** apply more than 12 oz. (0.383 lb. a.i.) per acre per single application.
- **DO NOT** apply more than 24 oz. (0.765 lb. a.i.) per acre per year.
- **DO NOT** apply more than 2 applications at 12 oz. (0.383 lb. a.i.) or 3 applications at 8 oz. (0.255 lb. a.i.) per acre per year.
- **DO NOT** re-apply **Flumioxazin 51WDG Prime** within 30 days.

Table 4. Tolerant Conifer Tree Species: Common

COMMON NAME	SCIENTIFIC NAME
Fir	
Concolor	<i>Abies concolor</i>
Cork Bark	<i>Abies lasiocarpa</i>
Douglas	<i>Pseudotsuga menziesii</i>
Fraser	<i>Abies fraseri</i>
Grand	<i>Abies grandis</i>
Noble	<i>Abies procera</i>
Turkish	<i>Abies bornmuelleriana</i>
Hemlock	
Eastern	<i>Tsuga canadensis</i>
Western	<i>Tsuga heterophylla</i>
Tamarix	<i>Juniperus sabina</i>
Pine	

COMMON NAME	SCIENTIFIC NAME
Austrian	<i>Pinus nigra</i>
Eastern White	<i>Pinus strobus</i>
Jack	<i>Pinus banksiana</i>
Japanese Black	<i>Pinus thunbergiana</i>
Loblolly	<i>Pinus taeda</i>
Lodgepole	<i>Pinus contorta</i>
Longleaf	<i>Pinus palustris</i>
Mugo	<i>Pinus mugo</i>
Ponderosa	<i>Pinus ponderosa</i>
Sand	<i>Pinus clausa</i>
Scotch	<i>Pinus sylvestris</i>
Shortleaf	<i>Pinus echinata</i>
Slash	<i>Pinus elliottii</i>
Virginia	<i>Pinus virginiana</i>
Spruce	
Blue	<i>Picea pungens</i>
Dwarf Alberta	<i>Picea glauca conica</i>
Norway	<i>Picea abies</i>
Sitka	<i>Picea sitchensis</i>

**DIRECTIONS FOR USE
IN POPLAR PLANTATIONS AND TIMBER RE-FORESTATION SITES
Not for use in California.**

Flumioxazin 51WDG Prime is a pre-emergence and post-emergence herbicide for control of selected grass and broadleaf weeds in poplar plantations and timber re-forestation sites following timber harvest operations. **Flumioxazin 51WDG Prime** may be used as a site preparation treatment prior to transplanting of trees or as a release treatment after stand establishment.

Site Preparation — Application Before Transplanting

Apply 8 - 12 oz. of **Flumioxazin 51WDG Prime** per acre. Transplant operations must take place at least 3 months after application. To obtain optimal weed control, apply **Flumioxazin 51WDG Prime** before weed emergence or after a burndown herbicide has controlled existing vegetation. If existing weed canopy is less than 40%, **Flumioxazin 51WDG Prime** may be tank mixed with a burndown herbicide to provide pre-emergence weed control.

Apply **Flumioxazin 51WDG Prime** in at least 10 gals. of water per acre to achieve uniform spray coverage using ground or aerial spray equipment.

Release Treatments — Applications Within 3 Years After Transplanting

Apply 8 - 12 oz. of **Flumioxazin 51WDG Prime** per acre over the top of trees prior to budbreak in the spring or after dormancy in fall. **DO NOT** apply **Flumioxazin 51WDG Prime** over the top of trees after budbreak or leaf spotting and defoliation may occur. **Flumioxazin 51WDG Prime** should not affect new growth of trees of tolerant poplars for over the top treatments.

TANK MIXING — Poplar Release Treatments

Certain liquid formulations of other pesticides may increase the post-emergence activity of **Flumioxazin 51WDG Prime**, but may also increase the potential for injury when applied over the top of various plants. Therefore, tank mixtures of these materials with **Flumioxazin 51WDG Prime** may be more injurious than this product applied alone and need to be tested to determine if they can be used safely on a widespread basis.

ADJUVANTS — Poplar Release Treatments

When applying Release Treatments, **DO NOT** mix **Flumioxazin 51WDG Prime** with any adjuvant or fertilizer.

IMPORTANT: When applied as directed, poplars (*Populus balsamifera*, *P. niger* and *P. tremuloides*), hybrid poplars (*P. sp. x sp.*), and cottonwoods (*P. deltoids* and *P. trichocarpa*) have shown tolerance to **Flumioxazin 51WDG Prime**. However, **Flumioxazin 51WDG Prime** is a very active herbicide and the user should exercise responsible judgment and caution until familiarity is gained with **Flumioxazin 51WDG Prime**. Test this product on a small number of plants to determine if this product can be used safely on a widespread basis. **DO NOT** apply **Flumioxazin 51WDG Prime** over the top unless trees are more than 1 year old.

Restrictions:

- **DO NOT** apply more than 12 oz. (0.383 lb. a.i.) per acre per single application.
- **DO NOT** apply more than 24 oz. (0.765 lb. a.i.) per acre per year.
- **DO NOT** apply more than 2 applications at 12 oz. (0.383 lb. a.i.) or 3 applications at 8 oz. (0.255 lb. a.i.) per acre per year.
- **DO NOT** re-apply **Flumioxazin 51WDG Prime** within 30 days.

**DIRECTIONS FOR USE ON DORMANT WARM-SEASON TURFGRASS GROWN ON RESIDENTIAL SITES, GOLF COURSES,
SOD PRODUCTION AND SIMILAR AREAS
Not for use in California.**

Only for use in the following states: Alabama, Arizona, Arkansas, Colorado, Delaware, Florida, Georgia, Iowa, Indiana, Illinois, Kansas, Kentucky, Louisiana, Maryland, Mississippi, Missouri, Nebraska, Nevada, New Mexico, New Jersey, North Carolina, Oklahoma, Ohio, Pennsylvania, South Carolina, Tennessee, Texas, Virginia, and West Virginia

Apply **Flumioxazin 51WDG Prime** as a single or split application to well established dormant turfgrass listed in Table 5, and will control winter annual weeds found in Table 1. Apply **Flumioxazin 51WDG Prime** to dormant turfgrass in such areas as apartment complexes, golf courses, sod farms, roadsides, sports fields, campgrounds, office complexes, parks, parking areas, recreational sites, schools, and other similar sites. Dormant bermudagrass, centipedegrass, seashore paspalum, St. Augustine and zoysiagrass have exhibited tolerance to **Flumioxazin 51WDG Prime** only when applied after turf has become dormant in the late fall and before turf breaks dormancy in the late winter/early spring. Application of **Flumioxazin 51WDG Prime** to actively growing turfgrass (warm season and cool season) or during green-up will cause unacceptable injury. **Flumioxazin 51WDG Prime** will injure warm season turf grown in southern areas where grass does not become completely dormant.

Broadcast Applications

Apply 8 - 12 oz. of **Flumioxazin 51WDG Prime** per broadcast acre as a pre-emergence (to weed emergence) application. If weeds are present at the time of application apply **Flumioxazin 51WDG Prime** plus an adjuvant (0.25% v/v non-ionic surfactant). Make post-emergence (to weed emergence) applications of **Flumioxazin 51WDG Prime** when weeds are actively growing and no larger than 2 inches in height. Thorough spray coverage is necessary to maximize the post-emergence activity of **Flumioxazin 51WDG Prime**. When applied after weed germination, **Flumioxazin 51WDG Prime** will provide pre-emergence and post-emergence control of broadleaf weeds and grasses listed in Table 1. Post-emergence control of **Flumioxazin 51WDG Prime** may be more effective on certain weed species, and may not control mature, stressed or hardened off weeds that are not actively growing at the time of application.

A second application of **Flumioxazin 51WDG Prime** may be required to provide adequate season-long weed control. Apply the second application using the above mentioned rate guidelines prior to the turfgrass breaking spring dormancy.

Spot Treatments

Mix 0.25 oz. (0.008 lb. a.i.) per gal. of **Flumioxazin 51WDG Prime** and 2 tsp. (½ fl. oz.) of non-ionic surfactant in 1 gal. of water and apply 1 gal. of spray solution per 1,000 sq. ft. Occasionally shake the spray solution while spraying to ensure the spray solution remains well mixed. Spray the target weeds until the leaves are wet.

Tank Mixing With Other Turfgrass Herbicides

Tank mixing **Flumioxazin 51WDG Prime** with other pre-emergence and post-emergence herbicides registered for use in dormant turfgrass may provide a broader spectrum of weed control than **Flumioxazin 51WDG Prime** alone.

IMPORTANT: Turfgrass must be completely dormant at application. Any turfgrass that is not dormant will be injured by applications of **Flumioxazin 51WDG Prime**. Scout area to be sprayed for any turf that is green in color and if encountered, delay application until turfgrass is completely dormant. Read and follow the label of any herbicides mixed with **Flumioxazin 51WDG Prime**. When tank mixing **Flumioxazin 51WDG Prime** with other herbicides, always follow the most restrictive limitations and precautions on the label of any tank mix partner.

Precautions:

- Exercise good judgment and caution when applying to dormant turfgrass until familiarity is gained with **Flumioxazin 51WDG Prime**.

Restrictions:

- **DO NOT** apply to golf course putting greens.
- **DO NOT** apply to warm season turfgrass that has been over-seeded with cool season turfgrass (ex. perennial rye).
- **DO NOT** irrigate within 1 hour before or after application.
- **DO NOT** apply if rain is expected within 1 hour after application.
- **DO NOT** mow turfgrass within 12 hours after application.
- **DO NOT** apply within 30 days prior to cutting or lifting sod.
- **DO NOT** apply more than 12 oz. (0.383 lb. a.i.) per acre per single application.
- **DO NOT** apply more than 24 oz. (0.765 lb. a.i.) per acre per year.
- **DO NOT** apply more than 2 applications at 12 oz. (0.383 lb. a.i.) or 3 applications at 8 oz. (0.255 lb. a.i.) per year.
- **DO NOT** re-apply **Flumioxazin 51WDG Prime** within 30 days.
- **DO NOT** apply in fall before turfgrass has ceased active growth or in late winter/early spring after turfgrass has resumed active growth.
- Allow 8 weeks between application and seeding or sodding of turfgrass.
- Not for homeowner use.

Table 5. Tolerant Turfgrass Species

COMMON NAME	SCIENTIFIC NAME
Bermudagrass	<i>Cynodon</i> spp.
Centipedegrass	<i>Eremochloa ophiuroides</i>
Seashore Paspalum	<i>Paspalum vaginatum</i>
St. Augustinegrass	<i>Stenotaphrum secundatum</i>

Zoysiagrass

Zoysia spp.

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

[Non-refillable 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 and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. 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 non-refillable container with liner] [**Non-refillable 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 if 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 non-refillable drum with liner] [**Non-refillable 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. Empty the rinsate 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.]

CONDITION 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 for 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 Prime Source, 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 Prime Source, LLC and Seller harmless for any claims relating to such factors.

Prime Source, 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 Prime Source, LLC, and Buyer and User assume the risk of any such use. **TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, PRIME SOURCE, LLC MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS STATED ABOVE.**

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