



# Flumioxazin 51% WDG – NonCrop

## Non-Crop Herbicide

**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, and Dormant Turfgrass**

**For The Management of Undesirable Aquatic Vegetation in Slow Moving or Quiescent Waters**

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

\*2-[7-fluoro-3,4-dihydro-3-oxo-4-(2-propynyl)-2H-1,4-benzoxazin-6-yl]-4,5,6,7-tetrahydro-1 H-isoindole- 1,3(2H)-dione

**KEEP OUT OF REACH OF CHILDREN**

**CAUTION/PRECAUCION**

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

Classified for  
“RESTRICTED USE”  
in New York State  
under 6NYCRR Part 326

ACCEPTED  
FOR REGISTRATION

OCT 20 2017

New York State Department  
of Environmental Conservation  
Division of Materials Management  
Pesticide Product Registration

Doc ID: 553982

<b>FIRST AID</b>	
<b>IF ON SKIN OR CLOTHING:</b>	<ul style="list-style-type: none"> <li>• Take off contaminated clothing.</li> <li>• Rinse skin immediately with plenty of water for 15-20 minutes.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
<b>IF INHALED:</b>	<ul style="list-style-type: none"> <li>• Move person to fresh air.</li> <li>• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth if possible.</li> <li>• Call a poison control center or doctor for further treatment advice.</li> </ul>
<b>IF IN EYES:</b>	<ul style="list-style-type: none"> <li>• Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li> <li>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
<b>IF SWALLOWED:</b>	<ul style="list-style-type: none"> <li>• Call a poison control center or doctor immediately for treatment advice.</li> <li>• Have person sip a glass of water if able to swallow.</li> <li>• Do not induce vomiting unless told to by the poison control center or doctor.</li> <li>• Do not give anything to an unconscious person.</li> </ul>
<b>HOT LINE NUMBER</b>	
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. For 24-Hour Medical Emergency Assistance (Human or Animal) call: <b>1-800-222-1222</b> . For Chemical Emergency Assistance (Spill, Leak, Fire, or Accident) call CHEMTREC: <b>1-800-424-9300</b> .	

**Manufactured in China For:** RedEagle International LLC  
5143 S. Lakeland Dr., Suite 3 Lakeland, FL 33813

**EPA Reg. No.: 85678-35**  
**EPA Est. No.: 91233-CHN-001**  
**Net Contents: 5 pounds**

## PRECAUTIONARY STATEMENTS

### HAZARDS TO HUMANS & DOMESTIC ANIMALS

#### CAUTION

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

#### PERSONAL PROTECTIVE EQUIPMENT (PPE)

Some of the materials that are chemical-resistant to this product are listed below.

#### Applicators and other handlers must wear:

- long-sleeved shirt and long pants
- chemical-resistant gloves made of any waterproof material such as polyethylene or polyvinyl chloride
- shoes and socks

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

#### USER SAFETY RECOMMENDATIONS

##### Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove clothing/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

**Flumioxazin 51% WDG – NonCrop** is toxic to non-target plants and aquatic invertebrates. Do not apply 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, if not used in accordance to the label directions. 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 **Flumioxazin 51% WDG – NonCrop** may have a potential to run-off to surface water or adjacent land. Where possible, use methods which reduce soil erosion, such as no till, limited till and contour plowing; these methods also reduce pesticide run-off. Use vegetation filter strips along rivers, creeks, streams, wetlands, or on the downhill side of fields, where run-off could occur to minimize water run-off.

#### **PHYSICAL OR CHEMICAL HAZARDS**

Do not mix or allow coming in contact with oxidizing agent. Hazardous chemical reaction may occur.

### **DIRECTIONS FOR USE - 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, and Dormant Turfgrass**

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, such as 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.

### RESISTANCE MANAGEMENT

**Flumioxazin 51% WDG – NonCrop** is a Group 14 herbicide. Any weed population may contain or develop plants naturally resistant to **Flumioxazin 51% WDG – NonCrop** and other Group 14 herbicides. Weed species with acquired resistance to Group 14 herbicides may eventually dominate the weed population if Group 14 herbicides are used repeatedly in the same field or in successive years as the primary method of control for targeted species. This may result in partial or total loss of control of those species by **Flumioxazin 51% WDG – NonCrop** or other Group 14 herbicides.

To delay herbicide resistance:

- Avoid using **Flumioxazin 51% WDG – NonCrop** or other target site of action Group 14 herbicides that might have a similar target site of action, on the same weed species.
- Use tank mixtures or premixes with herbicides from different target site of action Groups as long as the involved products are all registered for the same use, have different sites of action and are both effective at the tank mix or prepack rate on the weed(s) of concern.
- Base use on a comprehensive Integrated Pest Management (IPM) program.
- Monitor treated weed populations for loss of field efficacy.
- Contact your local extension specialist, certified crop advisors and/or manufacturer for herbicide resistance management and/or integrated weed management measures for specific crops and resistant weed biotypes.

### TANK MIXES NOTICE

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

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

## PRODUCT USE INFORMATION

**Flumioxazin 51% WDG – NonCrop** 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 51% WDG – NonCrop** 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 51% WDG – NonCrop** 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 51% WDG – NonCrop** 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 51% WDG – NonCrop** is a very active herbicide and the user must exercise responsible judgment and caution until familiarity is gained with **Flumioxazin 51% WDG – NonCrop**. 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.

## USE RESTRICTIONS

- 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. of this product per acre per application.
- Do not apply more than 24 oz. of this product per acre per year.

### **PRE-EMERGENCE APPLICATION**

Pre-emergence weed control with **Flumioxazin 51% WDG – NonCrop** is most effective when applied to clean, weed free soil surfaces prior to weed emergence. Moisture is necessary to activate **Flumioxazin 51% WDG – NonCrop** on soil for residual weed control. Dry weather following application of **Flumioxazin 51% WDG – NonCrop** 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 51% WDG – NonCrop** is applied to soil, weed control may be improved by utilizing shallow cultivation. If weeds begin to emerge, irrigate ( $\frac{1}{2}$ " of water) or cultivate uniformly with shallow tillage equipment that will not damage the crop. Do not deep cultivate **Flumioxazin 51% WDG – NonCrop**.

### **POST-EMERGENCE APPLICATION**

The most effective post-emergence weed control with **Flumioxazin 51% WDG – NonCrop** occurs when applied in combination with a surfactant to weeds less than 2 inches in height. Apply **Flumioxazin 51% WDG – NonCrop** 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 51% WDG – NonCrop** 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 51% WDG – NonCrop** 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. Nozzle selection must meet manufacturer's gallonage and pressure recommendation 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. Nozzle selection must meet manufacturer's gallonage and pressure recommendations for post-emergence herbicide application.

## **ADDITIVES**

### **Post-Emergence Application**

When applying **Flumioxazin 51% WDG – NonCrop** after weeds emerge, mix with an agronomically approved adjuvant. Mix **Flumioxazin 51% WDG – NonCrop** 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. Mixing compatibility should be verified by a jar test before using. Do not mix **Flumioxazin 51% WDG – NonCrop** with a surfactant when applying over the top of dormant woody ornamentals or conifer trees.

Add 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) 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.

### **JAR TEST TO DETERMINE COMPATIBILITY OF ADJUVANTS AND FLUMIOXAZIN 51% WDG – NONCROP 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. The water must be from the same source and have the same temperature as the water used in the spray tank mixing operation.
2. Add 3 grams (approximately 1 level tsp.) of **Flumioxazin 51% WDG – NonCrop** 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, do not use the 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 51% WDG – NonCrop**. Equipment with this product's residue remaining in the system may result in crop injury to subsequently treated crops.

### **SPRAYER PREPARATION**

Before applying **Flumioxazin 51% WDG – NonCrop**, 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 sulfonyleurea 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  $\frac{1}{2}$  -  $\frac{3}{4}$  of desired level with clean water.
2. To ensure a uniform spray mixture, pre-slurry the required amount of **Flumioxazin 51% WDG – NonCrop** with water prior to addition to the spray tank. Use a minimum of 1 gal. of water per 10 oz. of **Flumioxazin 51% WDG – NonCrop**.
3. While agitating, slowly add the pre-slurried to the spray tank. Agitation should create a rippling or rolling action on the water surface.
4. If tank mixing **Flumioxazin 51% WDG – NonCrop** 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 51% WDG – NonCrop** within 12 hours of mixing.

#### **SPRAYER CLEANUP**

Spray equipment must be cleaned each day following **Flumioxazin 51% WDG – NonCrop** application. After **Flumioxazin 51% WDG – NonCrop** is applied the following steps must be used 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. Then 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. Nozzles must be uniformly spaced on boom and frequently checked for accuracy.

#### **BROADCAST APPLICATION**

Apply **Flumioxazin 51% WDG – NonCrop** 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 51% WDG – NonCrop** per acre.

#### **BACKPACK APPLICATION**

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

**For terrestrial uses:**

- Do not apply more than 12 oz. of this product per acre per application.
- Do not apply more than 24 oz. of this product per acre per year.

**For Backpack Applications of Flumioxazin 51% WDG – NonCrop at 10 oz. per Acre**

Application Volume	Amount of Flumioxazin 51% WDG – NonCrop to mix in 1 gal. of water	Amount of Flumioxazin 51% WDG – NonCrop to mix in 2 gals. of water	Amount of Flumioxazin 51% WDG – NonCrop to mix in 3 gals. of water
1 gal. per 500 sq. ft. (= 87 GPA)	1 ¼ tsp.	2 ½ tsp.	3 ¾ tsp.
1 gal. per 750 sq. ft. (= 58 GPA)	1 ¾ tsp.	3 ¾ tsp.	5 ¼ tsp.
1 gal. per 1,000 sq. ft. (= 43.5 GPA)	2 ½ tsp.	5 tsp.	7 ½ tsp.

1 level teaspoon (tsp.) holds 2.8 grams of **Flumioxazin 51% WDG – NonCrop**.

**Example:** Applicator wants to spray 1 gal. of **Flumioxazin 51% WDG – NonCrop** solution per 1,000 sq. ft. of ground bed, and wants to mix up 2 gals. of spray solution. Therefore, mix 5 teaspoons of **Flumioxazin 51% WDG – NonCrop** in 2 gals. of water.

**AERIAL APPLICATION**

To obtain satisfactory weed control with aerial application of **Flumioxazin 51% WDG – NonCrop**, coverage must be uniform. Do not spray when drift is possible or when wind velocity is more than 10 mph. Do not spray **Flumioxazin 51% WDG – NonCrop** 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 51% WDG – NonCrop** 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 generally provide more consistent weed control.

**Nozzles and Nozzle Operation**

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

### CALIBRATION TABLE

Flumioxazin 51% WDG – NonCrop Rates Oz./A	Flumioxazin 51% WDG – NonCrop Rates Grams/Gal.	Flumioxazin 51% WDG – NonCrop Rates Per Gal.
8	2.3	¾ tsp.
10	2.8	1 level tsp.
12	3.4	1 ¼ tsp.

### SPRAY DRIFT REDUCTION

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 these factors when making decisions.

Do not apply under circumstances where possible drift to unprotected persons or to food, forage or other plantings that might be damaged or crops thereof rendered unfit for sale, use or consumption can occur.

- Use the largest droplet size consistent with acceptable efficacy. Formation of very small droplets may be minimized by appropriate nozzle selection, by orienting nozzles away from the air stream as much as possible and by avoiding excessive spray boom pressure. For ground boom and aerial applications, use medium or coarser spray nozzles according to ASAE 572 definition for standard nozzles or a volume mean diameter (VMD) of 300 microns or greater for spinning atomizer nozzles.
- Make aerial or ground applications when the wind velocity favors on-target product deposition. Apply only when the wind speed is less than or equal to 10 mph. For all non-aerial applications, wind speed must be measured adjacent to the application site on the upwind side, immediately prior to application.
- Do not make aerial or ground applications into areas of temperature inversions. Inversions are characterized by stable air and increasing temperatures with increasing distance above the ground. Mist or fog may indicate the presence of an inversion in humid areas. Where permissible by local regulations, the applicator may detect the presence of an inversion by producing smoke and observing a smoke layer near the ground surface.
- Low humidity and high temperatures increase the evaporation rate of spray droplets and therefore the likelihood of increased spray drift. Avoid spraying during conditions of low humidity and/or high temperatures.
- All aerial and ground application equipment must be properly maintained and calibrated using appropriate carriers.
- For ground boom applications, apply with nozzle height no more than 4 ft. above the ground or crop canopy.

Properly maintain and calibrate all aerial and ground application equipment.

Where states have more stringent regulations, they should be observed.

### WEEDS CONTROLLED

When **Flumioxazin 51% WDG – NonCrop** 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 51% WDG – NonCrop**

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>

\*pre-emergence control only.

(continued)

<b>COMMON NAME</b>	<b>SCIENTIFIC NAME</b>
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	
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>

\*pre-emergence control only.

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COMMON NAME	SCIENTIFIC NAME
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>

\*pre-emergence control only.

(continued)

<b>COMMON NAME</b>	<b>SCIENTIFIC NAME</b>
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>
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>

\*pre-emergence control only.

(continued)

COMMON NAME	SCIENTIFIC NAME
Spiderwort, Tropical	<i>Commelina benghalensis</i>
Spurge	
Petty	<i>Euphorbia peplus</i>
Prostrate	<i>Euphorbia humistrata</i> Engelm
Spotted	<i>Euphorbia maculata</i>
Starbur, Bristly*	<i>Acanthospermum hispidum</i>
Tassel-flower	<i>Emilia</i> spp.
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  
IN ESTABLISHED CONTAINER AND FIELD GROWN CONIFERS  
(INCLUDING CHRISTMAS TREES)**

Apply **Flumioxazin 51% WDG – NonCrop** 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 51% WDG – NonCrop** only when the product is applied to dormant or hardened off plant material. If applied over the top of plant foliage, apply **Flumioxazin 51% WDG – NonCrop** 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 51% WDG – NonCrop** 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. **Flumioxazin 51% WDG – NonCrop** 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 51% WDG – NonCrop** 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 51% WDG – NonCrop** as a directed spray, taking care to minimize direct contact or drift of sprays onto foliage. Mechanically incorporating **Flumioxazin 51% WDG – NonCrop** after application will disturb soil surfaces, which may reduce herbicidal efficacy. When applied before weed germination, **Flumioxazin 51% WDG – NonCrop** 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 51% WDG – NonCrop** per broadcast acre after weeds have emerged. **Flumioxazin 51% WDG – NonCrop** 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 51% WDG – NonCrop** 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 51% WDG – NonCrop** 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 51% WDG – NonCrop** will provide post-emergence control of broadleaf weeds and grasses listed in Table 1. Post-emergence control of **Flumioxazin 51% WDG – NonCrop** 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 51% WDG – NonCrop** with other pre-emergence and post-emergence herbicides registered for use on conifers may provide a broader spectrum of weed control than **Flumioxazin 51% WDG – NonCrop** applied alone, apply **Flumioxazin 51% WDG – NonCrop** as part of a post-emergence burndown program for control of annual and perennial weeds. Tank mixing **Flumioxazin 51% WDG – NonCrop** with glyphosate will increase the speed of burndown compared to glyphosate applied alone.

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

Clethodim	glyphosate*	oryzalin	prodiamine	simazine*
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\*Do not apply glyphosate or simazine to containerized ornamentals.

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

**TOLERANT CONIFERS**

**Flumioxazin 51% WDG – NonCrop** may be applied to the conifer species listed in Table 2. If a desired conifer species is not listed in Table 2, evaluate the safety of **Flumioxazin 51% WDG – NonCrop** on a small number of plants under commercial growing conditions, and monitor plant response for 4 - 6 weeks for phytotoxicity. Testing **Flumioxazin 51% WDG – NonCrop** 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 2 applications at 12 oz./A or 3 applications at 8 oz./A per year.
- Do not re-apply **Flumioxazin 51% WDG – NonCrop** within 30 days.

**Table 2. Tolerant Conifers**

COMMON NAME	SCIENTIFIC NAME
<b>Arborvitae</b>	
American	<i>Thuja occidentalis</i>
Oriental	<i>Thuja orientalis</i>
<b>Fir</b>	
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>
<b>Hemlock</b>	
Eastern	<i>Tsuga canadensis</i>
Western	<i>Tsuga heterophylla</i>

(continued)

<b>Juniper</b>	
Blue Star	<i>Juniperus scopularum</i>
Creeping	<i>Juniperus horizontalis</i>
Japanese Garden	<i>Juniperus chinensis</i>
Tamarix	<i>Juniperus sabina</i>
<b>Pine</b>	
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>
<b>Spruce</b>	
Blue	<i>Picea pungens</i>
Dwarf Alberta	<i>Picea glauca conica</i>
Norway	<i>Picea abies</i>
Sitka	<i>Picea sitchensis</i>
<b>Yew</b>	
English	<i>Taxus baccata</i>
Japanese	<i>Taxus cuspidata</i>

## DIRECTIONS FOR USE

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

Apply **Flumioxazin 51% WDG – NonCrop** as a 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 51% WDG – NonCrop** only when applied to the soil and base of plants. Application of **Flumioxazin 51% WDG – NonCrop** to deciduous foliage or green bark may result in unacceptable injury.

Apply **Flumioxazin 51% WDG – NonCrop** 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 51% WDG – NonCrop** 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 51% WDG – NonCrop** after bud swell may cause injury if herbicide contacts foliage. Avoid application 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 51% WDG – NonCrop** per broadcast acre as a pre-emergence (to weed emergence) application. Apply **Flumioxazin 51% WDG – NonCrop** 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, Apply **Flumioxazin 51% WDG – NonCrop** 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 51% WDG – NonCrop** will disturb soil surfaces, which may reduce herbicidal efficacy. Use spray shields that limit exposure of foliage and bark to **Flumioxazin 51% WDG – NonCrop**. 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 51% WDG – NonCrop** 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 51% WDG – NonCrop** when weeds are actively growing and are no larger than 2 inches in height. The addition of a surfactant enhances **Flumioxazin 51% WDG – NonCrop** activity on emerged weeds. Thorough spray

coverage is necessary to maximize the post-emergence activity of **Flumioxazin 51% WDG – NonCrop**. When applied after weed germination, **Flumioxazin 51% WDG – NonCrop** 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 51% WDG – NonCrop**.

Post-emergence control of **Flumioxazin 51% WDG – NonCrop** 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 51% WDG – NonCrop** 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. Apply **Flumioxazin 51% WDG – NonCrop** as part of a post-emergence burndown program of control of annual and perennial weeds. Tank mixing **Flumioxazin 51% WDG – NonCrop** with glyphosate will increase the speed of burndown compared to glyphosate applied alone.

Tank mix **Flumioxazin 51% WDG – NonCrop** 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 51% WDG – NonCrop**. 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 51% WDG – NonCrop** 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 51% WDG – NonCrop** 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 2 applications at 12 oz./A or 3 applications at 8 oz./A per year.
- Do not re-apply **Flumioxazin 51% WDG – NonCrop** within 30 days.

**Table 3. Tolerant Deciduous Tree Species**

<b>COMMON NAME</b>	<b>SCIENTIFIC NAME</b>
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, **Flumioxazin 51% WDG – NonCrop** must only be applied by commercial licensed applicators. Application of **Flumioxazin 51% WDG – NonCrop** in the vicinity of ornamental plants is limited to directed sprays around well established woody shrubs and trees such as azalea, euonymus, holly, and the conifers and deciduous trees listed in Tables 2 and 3.

**Flumioxazin 51% WDG – NonCrop** maintains 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 51% WDG – NonCrop** within any enclosed structure in residential or commercial landscapes.

**Flumioxazin 51% WDG – NonCrop** 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 such as 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. Do not apply this product under conditions that favor drift of sprays onto desired ornamentals or turfgrass. Use spray shields that limit the plant exposure to this product when 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 1 ¼ - 2 ½ tsp. of **Flumioxazin 51% WDG – NonCrop** 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 51% WDG – NonCrop** to weed free soil, mulch or gravel surfaces. Moisture is necessary to activate **Flumioxazin 51% WDG – NonCrop** 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 51% WDG – NonCrop** 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 51% WDG – NonCrop** 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 1 ¼ - 2 ½ tsp. of **Flumioxazin 51% WDG – NonCrop** 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 51% WDG – NonCrop** 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 51% WDG – NonCrop** 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 51% WDG – NonCrop** 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 51% WDG – NonCrop** with other products, always follow the most restrictive use conditions on either label.

#### **RESTRICTION**

- Do not apply more than 2 applications per year.

#### **DIRECTIONS FOR USE**

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

**Flumioxazin 51% WDG – NonCrop**, 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 51% WDG – NonCrop** 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 General Information. See Table 1 for a list of grasses and broadleaf weeds controlled by **Flumioxazin 51% WDG – NonCrop**.

**Flumioxazin 51% WDG – NonCrop** 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 51% WDG – NonCrop** per broadcast acre as a pre-emergence application. Pre-emergence (to weed emergence) applications of **Flumioxazin 51% WDG – NonCrop** must be made to weed-free surfaces. Moisture is necessary to activate **Flumioxazin 51% WDG – NonCrop** for residual weed control. Dry weather following application of **Flumioxazin 51% WDG – NonCrop** 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 51% WDG – NonCrop** 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 51% WDG – NonCrop** 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 51% WDG – NonCrop**, 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 51% WDG – NonCrop** occurs when applied in combination with a surfactant to weeds less than 2 inches in height.

#### **RESTRICTIONS**

- Do not apply more than 2 applications at 12 oz./A or 3 applications at 8 oz./A per year.
- Do not re-apply **Flumioxazin 51% WDG – NonCrop** within 30 days.

**DIRECTIONS FOR USE**  
**IN CONIFER RE-FORESTATION SITES FOLLOWING TIMBER HARVEST**  
**Not for use in California.**

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

Apply **Flumioxazin 51% WDG – NonCrop** 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 51% WDG – NonCrop** per acre over the top of trees prior to budbreak in the spring or after dormancy in fall. Do not apply **Flumioxazin 51% WDG – NonCrop** over the top of trees after budbreak or needle spotting and defoliation may occur. **Flumioxazin 51% WDG – NonCrop** 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 51% WDG – NonCrop**, but may also increase the potential for injury when applied over the top of various plants. Therefore, tank mixtures of these materials with **Flumioxazin 51% WDG – NonCrop** 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 51% WDG – NonCrop** with any adjuvant or fertilizer.

**IMPORTANT:** When applied as directed, the conifers listed in Table 4 have shown tolerance to **Flumioxazin 51% WDG – NonCrop**. However, **Flumioxazin 51% WDG – NonCrop** 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 51% WDG – NonCrop** 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 51% WDG – NonCrop** 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 51% WDG – NonCrop**.

#### RESTRICTIONS

- Do not apply more than 2 applications at 12 oz./A or 3 applications at 8 oz./A per year.
- Do not re-apply **Flumioxazin 51% WDG – NonCrop** within 30 days.

**Table 4. Tolerant Conifer Tree Species: Common**

COMMON NAME	SCIENTIFIC NAME
<b>Fir</b>	
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>
<b>Hemlock</b>	
Eastern	<i>Tsuga canadensis</i>
Western	<i>Tsuga heterophylla</i>
Tamarix	<i>Juniperus sabina</i>
<b>Pine</b>	
Austrian	<i>Pinus nigra</i>
Eastern White	<i>Pinus strobus</i>
Jack	<i>Pinus banksiana</i>

(continued)

COMMON NAME	SCIENTIFIC NAME
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>
<b>Spruce</b>	
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 51% WDG – NonCrop** 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. Use **Flumioxazin 51% WDG – NonCrop** 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 51% WDG – NonCrop** per acre. Transplant operations must take place at least 3 months after application. To obtain optimal weed control, apply **Flumioxazin 51% WDG – NonCrop** before weed emergence or after a burndown herbicide has controlled existing vegetation. If existing weed canopy is less than 40%, tank mix **Flumioxazin 51% WDG – NonCrop** with a burndown herbicide to provide pre-emergence weed control.

Apply **Flumioxazin 51% WDG – NonCrop** 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 51% WDG – NonCrop** per acre over the top of trees prior to budbreak in the spring or after dormancy in fall. Do not apply **Flumioxazin 51% WDG – NonCrop** over the top of trees after budbreak or leaf spotting and defoliation may occur. **Flumioxazin 51% WDG – NonCrop** 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 51% WDG – NonCrop**, but may also increase the potential for injury when applied over the top of various plants. Therefore, tank mixtures of these materials with **Flumioxazin 51% WDG – NonCrop** 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 51% WDG – NonCrop** 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 51% WDG – NonCrop**. However, **Flumioxazin 51% WDG – NonCrop** is a very active herbicide and the user must exercise responsible judgment and caution until familiarity is gained with **Flumioxazin 51% WDG – NonCrop**. 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 51% WDG – NonCrop** over the top unless trees are more than 1 year old.

#### **RESTRICTIONS**

- Do not apply more than 2 applications at 12 oz./A or 3 applications at 8 oz./A per year.
- Do not re-apply **Flumioxazin 51% WDG – NonCrop** 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 51% WDG – NonCrop** as a single or split application to well established dormant turfgrass listed in Table 5 to control winter annual weeds found in Table 1. Apply **Flumioxazin 51% WDG – NonCrop** 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 51% WDG – NonCrop** 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 51% WDG – NonCrop** to actively growing turfgrass (warm season and cool season) or during green-up will cause unacceptable injury. **Flumioxazin 51% WDG – NonCrop** will injure warm season turf grown in southern areas where grass does not become completely dormant.

#### **BROADCAST APPLICATIONS**

Apply 8 - 12 oz. of **Flumioxazin 51% WDG – NonCrop** per broadcast acre as a pre-emergence (to weed emergence) application. If weeds are present at the time of application apply **Flumioxazin 51% WDG – NonCrop** plus an adjuvant (0.25% v/v non-ionic surfactant). Make post-emergence (to weed emergence) applications of **Flumioxazin 51% WDG – NonCrop** 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 51% WDG – NonCrop**. When applied after weed germination, **Flumioxazin 51% WDG – NonCrop** will provide pre-emergence and post-emergence control of broadleaf weeds and grasses listed in Table 1. Post-emergence control of **Flumioxazin 51% WDG – NonCrop** 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.

Make a second application of **Flumioxazin 51% WDG – NonCrop** 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 2 ½ tsp. per gal. of **Flumioxazin 51% WDG – NonCrop** and 2 tsp. (⅓ 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 51% WDG – NonCrop** with other pre-emergence and post-emergence herbicides registered for use in dormant turfgrass may provide a broader spectrum of weed control than **Flumioxazin 51% WDG – NonCrop** alone.

**IMPORTANT:** Turfgrass must be completely dormant at application. Any turfgrass that is not dormant will be injured by applications of **Flumioxazin 51% WDG – NonCrop**. 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 51% WDG – NonCrop**. When tank mixing **Flumioxazin 51% WDG – NonCrop** with other herbicides, always follow the most restrictive limitations and precautions on the label of any tank mix partner.

## USE PRECAUTIONS

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

## 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 2 applications at 12 oz./A or 3 applications at 8 oz./A per year.
- Do not re-apply **Flumioxazin 51% WDG – NonCrop** 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.

**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	<i>Zoysia</i> spp.

## **DIRECTIONS FOR USE - For The Management of Undesirable Aquatic Vegetation in Slow Moving or Quiescent Waters**

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.

### **RESISTANCE MANAGEMENT**

**Flumioxazin 51% WDG – NonCrop** is a Group 14 herbicide. Any weed population may contain or develop plants naturally resistant to **Flumioxazin 51% WDG – NonCrop** and other Group 14 herbicides. Weed species with acquired resistance to Group 14 herbicides may eventually dominate the weed population if Group 14 herbicides are used repeatedly in the same field or in successive years as the primary method of control for targeted species. This may result in partial or total loss of control of those species by **Flumioxazin 51% WDG – NonCrop** or other Group 14 herbicides.

To delay herbicide resistance:

- Do not use **Flumioxazin 51% WDG – NonCrop** or other target site of action Group 14 herbicides that might have a similar target site of action, on the same weed species.
- Use tank mixtures or premixes with herbicides from different target site of action Groups as long as the involved products are all registered for the same use, have different sites of action and are both effective at the tank mix or prepack rate on the weed(s) of concern.
- Base use on a comprehensive Integrated Pest Management (IPM) program.
- Monitor treated weed populations for loss of field efficacy.
- Contact your local extension specialist, certified crop advisors and/or manufacturer for herbicide resistance management and/or integrated weed management measures for specific crops and resistant weed biotypes.

### **TANK MIXES NOTICE**

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

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

### **PRODUCT USE INFORMATION**

This product 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.

This product 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 this product to public aquatic areas may require special approval and/or permits. Consult with local state agencies, if required.

#### **USE PRECAUTIONS**

- There is no post-application holding restriction against use of treated water for drinking or recreational purposes (e.g. swimming, fishing).
- 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 retreat the same section of water within 28 days of application.
- Treated water may be used for irrigation purposes on turf and landscape ornamentals as outlined in the Irrigation Restrictions Following Application table.

#### **USE RESTRICTIONS**

- Do not apply to intertidal or estuarine areas.
- Do not use treated water irrigation purposes on food crops until at least five (5) days after application.
- Do not use in water utilized for crawfish farming.
- Do not re-treat 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.

#### **ADDITIVES**

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

#### **JAR TEST TO DETERMINE COMPATIBILITY OF ADJUVANTS AND FLUMIOXAZIN 51% WDG – NONCROP 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. The water must be from the same source and have the same temperature as the water used in the spray tank mixing operation.
2. Add 3 grams (approximately 1 level tsp.) of **Flumioxazin 51% WDG – NonCrop** 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. Place cap on jar, invert 10 times, let stand for 15 minutes, evaluate.
5. An ideal tank mix combination will be uniform and free of suspended particles. If any of the following conditions are observed do not use the 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.

#### **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. Continue agitation 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, completely drain the spray tank and rinse the application equipment thoroughly, including the inside and outside of the tank and all in-line screens.

If spray equipment will be used for purposes other than applying aquatic herbicides, it must be thoroughly cleaned following application of **Flumioxazin 51% WDG – NonCrop**. The following steps must be used 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.
4. Circulate through sprayer for 5 minutes.
5. Then flush all hoses, booms, screens, and nozzles for a minimum of 15 minutes.
6. Drain tank completely.
7. Remove all nozzles and screens and rinse them with clean water.

### **AERIAL APPLICATION**

To obtain satisfactory weed control with aerial application of **Flumioxazin 51% WDG – NonCrop**, 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 51% WDG – NonCrop** 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 51% WDG – NonCrop** 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 generally provide more consistent weed control.

#### **Nozzles and Nozzle Operation**

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

## 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

## SPRAY DRIFT REDUCTION

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 these factors when making decisions.

Do not apply under circumstances where possible drift to unprotected persons or to food, forage or other plantings that might be damaged or crops thereof rendered unfit for sale, use or consumption can occur. These precautions are not applicable for subsurface injection by closed systems.

- Use the largest droplet size consistent with acceptable efficacy. Formation of very small droplets may be minimized by appropriate nozzle selection, by orienting nozzles away from the air stream as much as possible and by avoiding excessive spray boom pressure. For ground boom and aerial applications, use medium or coarser spray nozzles according to ASAE 572 definition for standard nozzles or a volume mean diameter (VMD) of 300 microns or greater for spinning atomizer nozzles.
- Make aerial, ground, or watercraft-based surface applications when the wind velocity favors on-target product deposition. Apply only when the wind speed is less than or equal to 10 mph. For all non-aerial applications, wind speed must be measured adjacent to the application site on the upwind side, immediately prior to application.
- Do not make aerial or ground applications into areas of temperature inversions. Inversions are characterized by stable air and increasing temperatures with increasing distance above the ground. Mist or fog may indicate the presence of an inversion in humid areas. Where permissible by local regulations, the applicator may detect the presence of an inversion by producing smoke and observing a smoke layer near the ground surface.

- Low humidity and high temperatures increase the evaporation rate of spray droplets and therefore the likelihood of increased spray drift. Avoid spraying during conditions of low humidity and/or high temperatures.

Properly maintain and calibrate all aerial, ground, and water based application equipment.

Where states have more stringent regulations, they should be observed.

### DIRECTIONS FOR USE

#### TO CONTROL FLOATING AND EMERGED WEEDS USING SURFACE APPLICATION

**Flumioxazin 51% WDG – NonCrop** will control weeds and algae listed in Table 1 when applied as a broadcast spray with appropriate equipment. For best results, apply **Flumioxazin 51% WDG – NonCrop** 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</i> spp.
Frog's-bit	<i>Limnobium spongia</i>
Water Fern	<i>Salvinia</i> spp.
Water Lettuce	<i>Pistia stratiotes</i>
Watermeal*	<i>Wolffia</i> spp.
Water Pennywort	<i>Hydrocotyle</i> spp.
Filamentous Algae	<i>Pithophora</i>
Filamentous Algae	<i>Cladophora</i>

\*200 ppb water concentration rate may be 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

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

**Flumioxazin 51% WDG – NonCrop** 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 51% WDG – NonCrop** 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. Make a second application if required to provide control once the return of these weeds is first observed, but no sooner than 28 days after the last treatment.

Apply **Flumioxazin 51% WDG – NonCrop** during early morning hours to enhance 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.

Tank mix **Flumioxazin 51% WDG – NonCrop** 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 51% WDG – NonCrop** 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.

#### **DIRECTIONS FOR USE**

##### **TO CONTROL SUBMERSED AND FLOATING WEEDS USING SUBSURFACE APPLICATIONS**

**Flumioxazin 51% WDG – NonCrop** will control 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**

<b>COMMON NAME</b>	<b>SCIENTIFIC NAME</b>
Coontail	<i>Ceratophyllum demersum</i>
Duckweed	<i>Lemna</i> spp.
Fanwort	<i>Cabomba caroliniana</i>

(continued)

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 **Flumioxazin 51% WDG – NonCrop** at a rate that will produce an initial concentration of 200 to 400 ppb (of active ingredient flumioxazin) in the water column.

**Flumioxazin 51% WDG – NonCrop** 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 **Flumioxazin 51% WDG – NonCrop** 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 **Flumioxazin 51% WDG – NonCrop** 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. Make a second application to provide control once the return of these weeds is first observed, but no sooner than 28 days after the last treatment.

When applying **Flumioxazin 51% WDG – NonCrop** 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.

Tank mix **Flumioxazin 51% WDG – NonCrop** 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 are 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 **Flumioxazin 51% WDG – NonCrop** 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 **Flumioxazin 51% WDG – NonCrop** 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*, **Flumioxazin 51% WDG – NonCrop** will cause some discoloration and loss of growing tips, but regrowth will be rapid.

Tank mixing 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 51% WDG – NonCrop Required Per Surface Acre to Achieve Desired Water Concentration		
	200 ppb	300 ppb	400 ppb
1	1.1	1.6	2.1
2	2.1	3.2	4.2
3	3.2	4.8	6.4
4	4.2	6.4	8.5
5	5.3	8.0	10.6
6	6.4	9.5	12.7
7	7.4	11.1	14.8

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

## **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.

## **WARRANTY AND DISCLAIMER STATEMENT**

**NOTICE:** Read the entire Directions for Use, Conditions, Disclaimer of Warranties and Limitations of Liability before using this product. If terms are not acceptable, return the unopened product container at once. By using this product, user or buyer accepts the following Conditions, Disclaimer of Warranties and Limitations of Liability.

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

**DISCLAIMER OF WARRANTIES:** TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, REDEAGLE INTERNATIONAL LLC MAKES NO WARRANTIES, EXPRESS OR IMPLIED, OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE OR OTHERWISE, THAT EXTEND BEYOND THE STATEMENTS MADE ON THIS LABEL. No agent of RedEagle International LLC is authorized to make any warranties beyond those contained herein or to modify the warranties contained herein. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, REDEAGLE INTERNATIONAL LLC DISCLAIMS ANY LIABILITY WHATSOEVER FOR SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT.

**LIMITATIONS OF LIABILITY:** TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER FOR ANY AND ALL LOSSES, INJURIES OR DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, WHETHER IN CONTRACT, WARRANTY, TORT, NEGLIGENCE, STRICT LIABILITY OR OTHERWISE, SHALL NOT EXCEED THE PURCHASE PRICE PAID, OR AT REDEAGLE INTERNATIONAL LLC'S ELECTION, THE REPLACEMENT OF PRODUCT.



Group

14

Herbicide

# Flumioxazin 51% WDG – NonCrop

## Non-Crop Herbicide

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, and Dormant Turfgrass

For The Management of Undesirable Aquatic Vegetation in Slow Moving or Quiescent Waters

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

\*2-[7-fluoro-3,4-dihydro-3-oxo-4-(2-propynyl)-2H-1,4-benzoxazin-6-yl]-4,5,6,7-tetrahydro-1 H-isoindole- 1,3(2H)-dione

**KEEP OUT OF REACH OF CHILDREN**

### CAUTION/PRECAUCION

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted detalle.

(If you do not understand the label, find someone to explain it to you in detail.)

#### FIRST AID

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

#### HOT LINE NUMBER

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. For 24-Hour Medical Emergency Assistance (Human or Animal) call: **1-800-222-1222**. For Chemical Emergency Assistance (Spill, Leak, Fire, or Accident) call CHEMTREC: **1-800-424-9300**.

**Manufactured in China For:** RedEagle International LLC  
5143 S. Lakeland Dr., Suite 3 Lakeland, FL 33813

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PULL HERE TO OPEN AND PRESS TO RESEAL ▲