



U.S. ENVIRONMENTAL PROTECTION AGENCY

Office of Pesticide Programs
Registration Division (7505P)
1200 Pennsylvania Ave., N.W.
Washington, D.C. 20460

EPA Reg. Number:

85678-62

Date of Issuance:

3/27/19

NOTICE OF PESTICIDE:

Registration
 Reregistration
(under FIFRA, as amended)

Term of Issuance:

Conditional

Name of Pesticide Product:

Flumioxazin 44% SC – Non-crop

Name and Address of Registrant (include ZIP Code):

Keeva Shultz
RedEagle International LLC
c/o Wagner Regulatory Associates, Inc.
P.O. Box 640
Hockessin, DE 19707

Note: Changes in labeling differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Registration Division prior to use of the label in commerce. In any correspondence on this product always refer to the above EPA registration number.

On the basis of information furnished by the registrant, the above named pesticide is hereby registered under the Federal Insecticide, Fungicide and Rodenticide Act.

Registration is in no way to be construed as an endorsement or recommendation of this product by the Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.

This product is conditionally registered in accordance with FIFRA section 3(c)(7)(A). You must comply with the following conditions:

1. Submit and/or cite all data required for registration/reregistration/registration review of your product under FIFRA when the Agency requires all registrants of similar products to submit such data.

Signature of Approving Official:

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

Date:

3/27/19

2. You are required to comply with the data requirements described in the DCI identified below:
 - a. Flumioxazin GDCI-129034-1236

You must comply with all of the data requirements within the established deadlines. If you have questions about the Generic DCI listed above, you may contact the Chemical Review Manager in the Pesticide Reevaluation Division: <http://iaspub.epa.gov/apex/pesticides/f?p=chemicalsearch:1>

3. Make the following label changes before you release the product for shipment:
 - Revise the EPA Registration Number to read, “EPA Reg. No. 85678-62.”
4. Submit one copy of the final printed label for the record before you release the product for shipment.

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.

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

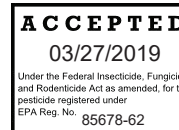
- Basic CSF dated 10/22/2018
- Alternate CSF 1 dated 10/22/2018

If you have any questions, please contact Nathan Mellor by phone at 703-347-8562, or via email at mellor.nathan@epa.gov.

Enclosure

[Master Label]

FLUMIOXAZIN	GROUP	14	HERBICIDE
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Flumioxazin 44% SC – Non-Crop

ABN: Flumioxazin 44% SC – Aquatic

ABN: Flumioxazin 44% SC IVM

Sub-Label A - Pages 2-9: Aquatics

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

Sub-Label B - Pages 10-20: Non-Crop/IVM

For Use to Maintain Bare Ground Non-Crop Areas, Conifer and Poplar Re-Forestation Sites

Sub-Label C - Pages 21-40: Aquatics, Non-Crop/IVM, and T&O

[For the Management of Undesirable Aquatic Vegetation in Slow Moving or Quiescent Waters]

[For Use to Maintain Bare Ground Non-Crop Areas, Conifer and Poplar Re-Forestation Sites]

[For Use in Container and Field Grown Conifers (Including Christmas Trees) and Deciduous Trees, Around Established Woody Ornamentals in Landscapes, and Maintain Non-Crop Areas and Dormant Bermudagrass]

Active Ingredient:

Flumioxazin* 44%

Other Ingredients: 56%

Total: 100%

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

Flumioxazin 44% SC – Non-Crop contains 4 lbs. flumioxazin per gallon.

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

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 by mouth-to-mouth if possible. Call a poison control center or doctor for further treatment advice.
IF IN EYES:	<ul style="list-style-type: none"> Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing. Call a poison control center or doctor for treatment advice.
IF SWALLOWED:	<ul style="list-style-type: none"> Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to by the poison control center or doctor. Do not give anything by mouth to an unconscious person.

HOTLINE NUMBERS

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**.

[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.]

Manufactured For:

RedEagle International LLC
5143 S. Lakeland Dr., Suite 4
Lakeland, FL 33813

EPA Reg. No.: 85678-XX

EPA Est. No.:

Net Contents:

[Sub-Label A - Pages 2-9: Aquatics]

FLUMIOXAZIN	GROUP	14	HERBICIDE
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Flumioxazin 44% SC – Non-Crop

ABN: Flumioxazin 44% SC – Aquatic

[For use in Aquatics Market Segment]

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

Active Ingredient:	By Wt.
Flumioxazin*.....	44%
Other Ingredients:	56%
Total:	100%

*2-[7-fluoro-3,4-dihydro-3-oxo-4-(2-propynyl)-2H-1,4-benzoxazin-6-yl]-4,5,6,7-tetrahydro-1H-isoindole-1,3(2H)-dione
Flumioxazin 44% SC – Aquatic contains 4 lbs. flumioxazin per gallon.

KEEP OUT OF REACH OF CHILDREN

CAUTION/PRECAUCION

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

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PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS
CAUTION

Avoid contact with skin, eyes, or clothing. Harmful if inhaled or absorbed through the skin. Causes moderate eye irritation. Avoid breathing spray mist. Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Applicators and other handlers must wear:

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

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

If not used in accordance with directions on the label, **Flumioxazin 44% SC – Aquatic** can be toxic to non-target plants and aquatic invertebrates. Do not apply directly to treated, finished drinking water reservoirs, or drinking water receptacles when the water is intended for human consumption. Drift and run-off may be hazardous to non-target plants and aquatic organisms in water adjacent to treated areas. Do not apply where run-off 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. Use strictly in accordance with the drift and run-off precautions on this label in order to minimize off-site exposures.

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 - 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 agent. 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.

RESISTANCE MANAGEMENT

Flumioxazin 44% SC – Aquatic contains flumioxazin and is classified in the N-phenylphthalimide chemical class as a Group 14 herbicide, Inhibitor of protoporphyrinogen oxidase (Protox, PPO). Herbicide resistance is defined as the inherited ability of a plant to survive and reproduce following exposure to a dose of herbicide normally lethal to the wild type. In a plant, resistance may be naturally occurring or induced by such techniques as genetic engineering or selection of variants produced by tissue culture or mutagenesis. Any weed population may contain or develop plants that are naturally resistant to Flumioxazin 44% SC

– Aquatic 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 44% SC – Aquatic or other Group 14 herbicides.

For resistance management, **Flumioxazin 44% SC – Aquatic** is a Group 14 herbicide. Any weed population may contain or develop plants naturally resistant to **Flumioxazin 44% SC – Aquatic** 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, consider the below best practices for resistance management:

- Plant into weed-free fields and keep fields as weed-free as possible.
- To the extent possible, use a diversified approach toward weed management. Whenever possible incorporate multiple weed-control practices, for example mechanical cultivation, biological management practices, and crop rotation.
- Fields with difficult to control weeds should be rotated to crops that allow the use of herbicides with alternative mechanisms of action or different management practices.
- To the extent possible do not allow weed escapes to produce seeds, roots or tubers. Manage weed seeds at harvest and post-harvest to prevent a buildup of the weed seed-bank.
- Prevent field-to-field and within-field movement of weed seed or vegetative propagules. Thoroughly clean plant residues from equipment before leaving fields.
- Prevent an influx of weeds into the field by managing field borders.
- Identify weeds present in the field through scouting and field history and understand their biology. The weed-control program should consider all of the weeds present.
- Difficult to control weeds may require sequential applications of herbicides with differing mechanisms of action.
- Apply this herbicide at the correct timing and rate needed to control the most difficult weed in the field.
- Use a broad-spectrum soil-applied herbicide with a mechanism of action that differs from this product as a foundation in a weed-control program. Do not use more than two applications of this or any other herbicide with the same mechanism of action within a single year unless mixed with an herbicide with another mechanism of action with an overlapping spectrum for the difficult-to-control weeds.
- If resistance is suspected, treat weed escapes with an herbicide with a different MOA or use non-chemical methods to remove escapes.
- Monitor treated weed populations for loss of field efficacy.
- Scout field(s) before and after application.
- Report lack of performance to RedEagle International LLC or their representative.

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.

Contact your local sales representative, extension agent, or certified crop advisors to find out if suspected resistant weeds to this MOA have been found in your region. If resistant biotypes of target weeds have been reported, use the application rates of this product specified for your local conditions. Tank mix products so that there are multiple effective mechanisms of action for each target weed.

TANK MIXES NOTICE

Tank mixing and/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 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.

PRODUCT USE INFORMATION

Flumioxazin 44% SC – Aquatic 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 RESTRICTIONS

- Do not exceed 400 ppb of this product during any 1 application.
- Do not use treated water for irrigation purposes on food crops until at least 5 days after application.
- Do not re-treat the same section of water with this product more than 6 times per year.
- Do not use in water utilized for crawfish farming.
- Do not apply to intertidal or estuarine areas.

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.

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 MANAGEMENT

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 spray this product under circumstances where spray droplets may drift on to unprotected persons, plantings of food, forage or crops that might be damaged, or rendered unfit for sale, use or consumption. 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 wind velocity favors on-target product deposition. Apply only when the wind speed is less than or equal to 10 mph.
- 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, observe them.

APPLICATION AND SPRAYER INFORMATION

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 48 hours of mixing.

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 44% SC – Aquatic

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 the water to a quart jar. Use water from the same source and temperature as which will be used in the spray tank mixing operation.
2. Add 1 mL of **Flumioxazin 44% SC – Aquatic** to the quart jar for every 3 fl. oz. of this product per acre being applied (4 mL if 12 fl.

oz. per acre is the desired rate of **Flumioxazin 44% SC – Aquatic**), gently mix until product goes into suspension.

3. Add 1 mL of non-ionic surfactant, 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. If any of the following conditions are observed question the choice of adjuvant:
 - a) Layer of oil or globules on the mixture's surface.
 - b) Flocculation: fine particles in suspension or as a layer on the bottom of the jar.
 - c) Clabbering: Thickening texture (coagulated) like gelatin.

Sprayer Clean-Up

If spray equipment is dedicated to application of aquatic herbicides, the following steps are to clean the spray equipment:

- 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 44% SC – Aquatic**. The following steps must be used to clean the spray equipment:

1. Completely drain the spray tank and rinse the application equipment 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, aerial application of **Flumioxazin 44% SC – Aquatic**, must provide uniform coverage of surface weeds and sufficient contact time. When applied by air, this product may not provide adequate control of some submersed weeds. Do not apply by air when significant drift on to non-target plants may occur or when wind velocity is more than 10 mph. Avoid spraying **Flumioxazin 44% SC – Aquatic** within 200 ft. of dwellings, adjacent sensitive crops or environmentally sensitive areas. To obtain satisfactory application and avoid drift, the following directions must be observed:

- **Volume Pressure** - Apply **Flumioxazin 44% SC – Aquatic** in a minimum of 5 gallons of water per acre with a maximum spray pressure of 40 PSI. Application at less than 5 gallons 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 specifications.

DIRECTIONS FOR USE TO CONTROL FLOATING AND EMERGED WEEDS USING SURFACE APPLICATION

Flumioxazin 44% SC – Aquatic will control weeds and algae listed in Table 1 when applied as a broadcast spray with appropriate equipment. For best results, apply **Flumioxazin 44% SC – Aquatic** 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>
Mosquito Fern	<i>Azolla</i> spp.
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>

*Coverage is essential for effective duckweed and watermeal control. Any duckweed and/or watermeal escapes left in the water column will quickly re-infest the water body. Apply 200 ppb concentration throughout the water body to control 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 44% SC – Aquatic** as a broadcast spray at 6 - 12 fl. oz. of formulated product per acre plus an adjuvant approved for use in aquatics.

Flumioxazin 44% SC – Aquatic 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 44% SC – Aquatic** in a minimum of 30 gals. 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

a treatment once the return of these weeds is first observed, but no sooner than 28 days after the last treatment.

Application of **Flumioxazin 44% SC – Aquatic** during early morning hours may 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.

Flumioxazin 44% SC – Aquatic 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 44% SC – Aquatic** 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 44% SC – Aquatic will control submersed and floating weeds listed in Table 2 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 Treatment

Apply **Flumioxazin 44% SC – Aquatic** at a rate that will produce an initial concentration of 200 - 400 ppb (of active ingredient flumioxazin) in the water column.

Flumioxazin 44% SC – Aquatic 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 44% SC – Aquatic** under these conditions may provide only partial weed control, and regrowth is likely. For best control, apply this product in a minimum of 30 gals. 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 44% SC – Aquatic** 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, make a treatment once the return of these weeds is first observed, but no sooner than 28 days after the last treatment.

When applying **Flumioxazin 44% SC – Aquatic** 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.

Flumioxazin 44% SC – Aquatic 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 **Flumioxazin 44% SC – Aquatic** 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 44% SC – Aquatic** 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 44% SC – Aquatic** will cause some discoloration and loss of growing tips, but regrowth will be rapid.

Tank mixing **Flumioxazin 44% SC – Aquatic** with other registered herbicides is advised, especially if hydrilla is approaching maturity or biomass is heavy.

Table 3. Subsurface Application Rates

Water Depth (Feet)	Pints of Flumioxazin 44% SC – Aquatic 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

Example: To achieve an initial concentration of 200 ppb of flumioxazin in a 4 ft. deep water column, apply 4.2 pts. of **Flumioxazin 44% SC – Aquatic** per surface acre.

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. For help with any spill, leak, fire or exposure involving this material, call day or night **CHEMTREC (800) 424-9300**.

PESTICIDE DISPOSAL

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

CONTAINER HANDLING

[Note to Reviewer: The following statement will be included on all Final Printed Labels bearing multiple Container Disposal (Container Handling) statements] **“NOTE:** This product is available in multiple containers. Refer to the Net Contents section of this products labeling for the applicable “No refillable” or “Refillable” designation. Follow the container disposal [handling] instructions below that apply to your container type / size.”

[Note to Reviewer: The bracketed section headers will be included when multiple container types / sizes are listed on the label.]

[Nonrefillable Containers 5 gallons or less:] 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 and drain for 10 seconds after the flow begins to drip. 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 or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by State and local authorities. Plastic containers are also disposable by incineration, or, if allowed by State and local authorities, by burning. If burned stay out of smoke.

[Nonrefillable containers larger than 5 gallons:] Nonrefillable container. Do not reuse or refill this container. Offer for recycling if available. If recycling or reconditioning not available, puncture and dispose of in a sanitary landfill, or by other procedures approved by State and local authorities. Plastic containers are also disposable by incineration, or, if allowed by State and local authorities, by burning. If burned stay out of smoke. Triple rinse or pressure 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. 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. **Pressure rinse as follows:** Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

[Refillable containers larger than 5 gallons:] Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or a mix tank. Fill the container about 10% full with water. Agitate vigorously or recirculate water with the pump for two minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures allowed by State and local authorities.

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.

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

[Sub-Label B - Pages 10-20: Non-Crop/IVM]

FLUMIOXAZIN

GROUP

14

HERBICIDE



Flumioxazin 44% SC – Non-Crop

ABN: Flumioxazin 44% SC IVM

[For use in Non-crop and Industrial Vegetation Management Market Segment]

For Use to Maintain Bare Ground Non-Crop Areas, *Conifer and Poplar Re-Forestation Sites

*Not for use in California.

Active Ingredient:	By Wt.
Flumioxazin*	44%
Other Ingredients:	56%
Total:	100%

*2-[7-fluoro-3,4-dihydro-3-oxo-4-(2-propynyl)-2H-1,4-benzoxazin-6-yl]-4,5,6,7-tetrahydro-1H-isoindole-1,3(2H)-dione
Flumioxazin 44% SC – Non-Crop contains 4 lbs. flumioxazin per gallon.

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	
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 by mouth-to-mouth if possible. • Call a poison control center or doctor for further treatment advice.
IF IN EYES:	<ul style="list-style-type: none"> • Hold eye open and rinse slowly and gently with water for 15-20 minutes. • Remove contact lenses, if present, after the first 5 minutes, then continue rinsing. • Call a poison control center or doctor for treatment advice.
IF SWALLOWED:	<ul style="list-style-type: none"> • Call a poison control center or doctor immediately for treatment advice. • Have person sip a glass of water if able to swallow. • Do not induce vomiting unless told to by the poison control center or doctor. • Do not give anything by mouth to an unconscious person.
HOTLINE NUMBERS	
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 .	

[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.]

Manufactured For:

RedEagle International LLC
5143 S. Lakeland Dr., Suite 4
Lakeland, FL 33813

EPA Reg. No.: 85678-XX

EPA Est. No.:

Net Contents:

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION

Avoid contact with skin, eyes, or clothing. Harmful if inhaled or absorbed through the skin. Causes moderate eye irritation. Avoid breathing spray mist. Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Applicators and other handlers must wear:

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

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

If not used in accordance with directions on the label, **Flumioxazin 44% SC IVM** is toxic to non-target plants and aquatic invertebrates. For terrestrial uses: Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark. Drift and run-off may be hazardous to non-target plants and aquatic organisms in water adjacent to treated areas. Do not apply where run-off 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. Use 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 agent. 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.

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 (WPS) for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural crops on farms, forests, 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 the treated area until sprays have dried.

RESISTANCE MANAGEMENT

Flumioxazin 44% SC IVM contains flumioxazin and is classified in the N-phenylphthalimide chemical class as a Group 14 herbicide, Inhibitor of protoporphyrinogen oxidase (Protox, PPO). Herbicide resistance is defined as the inherited ability of a plant to survive and reproduce following exposure to a dose of herbicide normally lethal to the wild type. In a plant, resistance may be naturally occurring or induced by such techniques as genetic engineering or selection of variants produced by tissue culture or mutagenesis. Any weed population may contain or develop plants that are naturally resistant to **Flumioxazin 44% SC IVM** 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 44% SC IVM** or other Group 14 herbicides.

For resistance management, Flumioxazin 44% SC IVM is a Group 14 herbicide. Any weed population may contain or develop plants naturally resistant to Flumioxazin 44% SC IVM 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, consider the below best practices for resistance management:

- Plant into weed-free fields and keep fields as weed-free as possible.
- To the extent possible, use a diversified approach toward weed management. Whenever possible incorporate multiple weed-control practices, for example mechanical cultivation, biological management practices, and crop rotation.
- Fields with difficult to control weeds should be rotated to crops that allow the use of herbicides with alternative mechanisms of action or different management practices.
- To the extent possible do not allow weed escapes to produce seeds, roots or tubers. Manage weed seeds at harvest and post-harvest to prevent a buildup of the weed seed-bank.
- Prevent field-to-field and within-field movement of weed seed or vegetative propagules. Thoroughly clean plant residues from equipment before leaving fields.
- Prevent an influx of weeds into the field by managing field borders.
- Identify weeds present in the field through scouting and field history and understand their biology. The weed-control program should consider all of the weeds present.
- Difficult to control weeds may require sequential applications of herbicides with differing mechanisms of action.
- Apply this herbicide at the correct timing and rate needed to control the most difficult weed in the field.
- Use a broad-spectrum soil-applied herbicide with a mechanism of action that differs from this product as a foundation in a weed-control program. Do not use more than two applications of this or any other herbicide with the same mechanism of action within a single year unless mixed with an herbicide with another mechanism of action with an overlapping spectrum for the difficult-to-control weeds.
- If resistance is suspected, treat weed escapes with an herbicide with a different MOA or use non-chemical methods to remove escapes.
- Monitor treated weed populations for loss of field efficacy.
- Scout field(s) before and after application.
- Report lack of performance to RedEagle International LLC or their representative.

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.

Contact your local sales representative, extension agent, or certified crop advisors to find out if suspected resistant weeds to this MOA have been found in your region. If resistant biotypes of target weeds have been reported, use the application rates of this product specified for your local conditions. Tank mix products so that there are multiple effective mechanisms of action for each target weed.

TANK MIXES NOTICE

Tank mixing and/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 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.

PRODUCT USE INFORMATION

Flumioxazin 44% SC IVM is a selective herbicide to maintain bare ground non-crop areas when used in accordance with this label. This product is effective as a pre-emergence and/or post-emergence herbicide for control of selected grass and broadleaf weeds.

Flumioxazin 44% SC IVM 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.

USE RESTRICTIONS

- Do not apply more than 2 applications at 12 fl. oz. (0.38 lb. a.i.) per acre or 3 applications at 8 fl. oz. (0.25 lb. a.i.) per acre per year.
- Do not apply more than 12 fl. oz. (0.38 lb. a.i.) of this product per acre per application.
- Do not apply more than 24 fl. oz. (0.75 lb. a.i.) of this product per acre per year.
- 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 to moist or wet desirable plant foliage.
- Do not apply within 300 feet of non-dormant pome or stone fruit crops.

USE PRECAUTIONS

- Treatment of powdery, dry soil or light sandy 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.

Pre-Emergence Application

Make the pre-emergence application of **Flumioxazin 44% SC IVM** prior to weed emergence. Moisture is necessary to activate this product for residual weed control. Moisture is needed to move this product into the soil for pre-emergence weed control. Dry weather following application of **Flumioxazin 44% SC IVM** may reduce effectiveness.

Post-Emergence Application

Apply **Flumioxazin 44% SC IVM** only to actively growing weeds. Applying this product under conditions that do not promote active weed growth will reduce herbicide effectiveness. Do not apply this product when the weeds are under stress due to drought, excessive water and extremes in temperatures or disease. This product is most effective when applied under sunny conditions at temperatures above 65°F.

Flumioxazin 44% SC IVM is rainfast 1 hour after application. Do not make applications if rain is expected within 1 hour of application or efficacy may be reduced.

SPRAY DRIFT MANAGEMENT

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. Drift potential is lowest between wind speeds of 2 - 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 at the lowest boom height which provides uniform coverage and reduces exposure to evaporation and wind.

APPLICATION AND SPRAYER INFORMATION

Application Equipment

Important: Thoroughly clean spray equipment, including all tanks, hoses, booms, screens, and nozzles. **Do not use spray equipment used to apply this product to apply other materials to any desirable plant foliage.** Equipment with this product's residue remaining in the system may result in crop injury to subsequently treated crops.

Sprayer Preparation

Before applying this product, start with clean, well maintained application equipment. 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 the 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's application, follow the most restrictive clean-up procedure.

Mixing Instructions

1. Fill clean spray tank $\frac{1}{2}$ - $\frac{3}{4}$ of desired level with clean water.

2. Agitate solution. Agitation creates a rippling or rolling action on the water surface.
3. If tank mixing this product 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.
4. Add any required adjuvants.
5. Fill spray tank to desired level with water. **Continue agitation until all spray solution has been applied.**
6. Mix only the amount of spray solution that can be applied the day of mixing. Apply this product within 48 hours of mixing.

Sprayer Clean-Up

If spray equipment is dedicated to herbicide applications, the following steps are to clean the spray equipment:

- 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 herbicides, it must be thoroughly cleaned following application of **Flumioxazin 44% SC IVM**. 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 suitable commercial spray tank cleaning material, following label directions, or add 1 gallon of 3% household ammonia for every 100 gallons of water, circulate through sprayer for 5 minutes, and then flush all hoses, booms, screens, and nozzles 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 with clean water.

WEEDS CONTROLLED

Table 1. Weeds Controlled By Flumioxazin 44% SC IVM

When **Flumioxazin 44% SC IVM** is applied pre-emergence or post-emergence at directed rates and weed stages, the following grasses and broadleaf weeds are controlled:

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</i> var. <i>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>
Lovegrass, California*	<i>Eragrostis diffusa</i>
Liverwort	<i>Marchantia polymorpha</i>
Mallow	
Common	<i>Malva neglecta</i>
Little	<i>Malva parviflora</i>
Venice	<i>Hibiscus trionum</i>
Marsh Parsley	<i>Apium leptophyllum</i>
Mayweed*	<i>Anthemis cotula</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>
Moss	<i>Bryum</i> spp.
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>
Buckhorn*	<i>Plantago lanceolate</i>
Poinsettia, Wild	<i>Euphorbia heterophylla</i>
Pondweed, Sago	<i>Potamogeton pectinatus</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</i> Engelm
Spotted	<i>Euphorbia maculata</i>
Starbur, Bristly*	<i>Acanthospermum hispidum</i>
Tassle-flower	<i>Emilia</i> spp.
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 MAINTAIN BARE GROUND NON-CROP AREAS

Flumioxazin 44% SC IVM can be used for non-selective vegetation control to maintain bare ground non-crop areas that must be kept weed-free. Apply **Flumioxazin 44% SC IVM** only to:

- Bare ground under guard rails, above-ground pipelines, railroad beds, railroad yards, and surrounding areas.
- Bare ground in parking and storage areas, 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 around farm buildings and along ungrazed fence rows, wind breaks, and shelter belts.
- Road surfaces, improved roadside areas, and gravel shoulders.

Follow all applicable directions as outlined above under **PRODUCT USE INFORMATION**. Follow all applicable directions as outlined above under **PRODUCT USE INFORMATION**. See Table 1 under **WEEDS CONTROLLED** section for a list of broadleaf weeds and grasses controlled by **Flumioxazin 44% SC IVM**.

Flumioxazin 44% SC IVM offers residual and post-emergence control of susceptible broadleaf and grass weeds as well as additional mode of action to assist in the control of ALS (acetolactate synthase) 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 fl. oz. (0.25 - 0.38 lb. a.i./A) of **Flumioxazin 44% SC IVM** per broadcast acre as a pre-emergence application. Make pre-emergence (to weed emergence) applications of **Flumioxazin 44% SC IVM** to a weed free soil surface. Pre-emergence applications of **Flumioxazin 44% SC IVM** must be completed prior to weed emergence. Moisture is necessary to activate **Flumioxazin 44% SC IVM** on soil for residual weed control. Dry weather following application of **Flumioxazin 44% SC IVM** may reduce effectiveness. However, when adequate moisture is received after dry conditions, **Flumioxazin 44% SC IVM** will control susceptible germinating weeds.

Post-Emergence Application

Apply 8 - 12 fl. oz. (0.25 - 0.38 lb. a.i./A) of **Flumioxazin 44% SC IVM** 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 this product activity on emerged weeds. Thorough spray coverage is necessary to maximize the post-emergence activity of **Flumioxazin 44% SC IVM**. Emerged weeds are controlled post-emergence with **Flumioxazin 44% SC IVM**, however, translocation of this product 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 this product occurs when applied in combination with a surfactant to weeds less than 2 inches in height.

Soil Characteristics

Application of **Flumioxazin 44% SC IVM** 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, use 10 - 30 gals. of spray solution per acre. Nozzle selection must meet manufacturer's gallonage and pressure directions for pre-emergence herbicide application.

Post-Emergence Application

To ensure thorough coverage, use 15 - 30 gals. of spray solution per acre. Use 20 - 30 gals. per acre if dense vegetation or heavy residue is present on the soil surface. Nozzle selection must meet manufacturer's gallonage and pressure directions for post-emergence herbicide application.

ADDITIVES

Post-Emergence Application

When applying **Flumioxazin 44% SC IVM** after weed emergence, mix with an agronomically approved adjuvant. Use a crop oil concentrate which contains at least 15% emulsifiers and 80% oil or a non-ionic surfactant containing at least 80% active ingredient

when applying **Flumioxazin 44% SC IVM** as part of a post-emergence weed control program. Verify mixing compatibility by a jar test before using.

A spray grade nitrogen source (either ammonium sulfate at 2.0 - 2.5 lbs./A or a 28 to 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.

Jar Test to Determine Compatibility of Adjuvants and Flumioxazin 44% SC IVM

When using **Flumioxazin 44% SC IVM** and an adjuvant, including in stale seed bed, lay-by, hooded/shielded or reduced tillage situations, 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 the water to a quart jar. Use water from the same source and temperature as which will be used in the spray tank mixing operation.
2. Add 1 mL of **Flumioxazin 44% SC IVM** to the quart jar for every 3 fl. oz. of this product per acre being applied (4 mL if 12 fl. oz. per acre is the desired rate of **Flumioxazin 44% SC IVM**), gently mix until product goes into suspension.
3. Add 60 mL of crop 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 of the 28 to 32% nitrogen source to the quart jar. If ammonium sulfate is being used, add 19 g AMS to the quart jar in place of the 28 to 32% nitrogen.
5. Place cap on jar, invert 10 times, let stand for 15 minutes, evaluate.
6. An ideal tank mix combination will be uniform. If any of the following conditions are observed question the choice of adjuvant:
 - a) Layer of oil or globules on the mixture's surface.
 - b) Flocculation: fine particles in suspension or as a layer on the bottom of the jar.
 - c) Clabbering: Thickening texture (coagulated) like gelatin.

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 44% SC IVM** 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 44% SC IVM** per acre.

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

To obtain satisfactory weed control with aerial applications of **Flumioxazin 44% SC IVM**, uniform coverage must be obtained. Do not spray when drift is possible or when wind velocity is more than 10 mph. Avoid spraying this product within 200 ft. of dwellings, adjacent sensitive crops or environmentally sensitive areas. To obtain satisfactory application and drift, the following directions must be observed:

- **Volume Pressure** - Use this product in 5 - 10 gals. of water per acre with a maximum spray pressure of 40 PSI. Application at less than 5 gals. per acre will provide inadequate 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 partner's label for adjuvant specifications.

Tank Mix Applications

In addition to weeds controlled by **Flumioxazin 44% SC IVM** used alone, tank mixtures with other pre-emergence and post-emergence herbicides registered for use in non-crop areas provide a broader spectrum of weed control. **Flumioxazin 44% SC IVM** must be tank mixed with other non-crop herbicides including, but not limited to those products listed below.

Tank Mix Combinations For Non-Selective Vegetation Control

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

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

Restrictions

- Do not apply more than 2 applications at 12 fl. oz. (0.38 lb. a.i.) per acre or 3 applications at 8 fl. oz. (0.25 lb. a.i.) per acre per year.
- Do not re-apply this product within 30 days.

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

Flumioxazin 44% SC IVM 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. **Flumioxazin 44% SC IVM** may be used 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 fl. oz. of **Flumioxazin 44% SC IVM** per acre. Transplant operations must take place at least 3 months after application. To obtain optimal weed control, apply this product before weed emergence or after a burndown herbicide has controlled existing vegetation. If existing weed canopy is less than 40%, **Flumioxazin 44% SC IVM** may be tank mixed with a burndown herbicide to provide pre-emergence weed control.

Apply **Flumioxazin 44% SC IVM** 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 fl. oz. of **Flumioxazin 44% SC IVM** per acre over-the-top of trees prior to budbreak in the Spring or after dormancy in Fall. Do not apply this product over-the-top of trees after budbreak or needle spotting and defoliation may occur. **Flumioxazin 44% SC IVM** will not affect new growth of trees. See Table 2 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 44% SC IVM**, but may also increase the potential for injury when applied over-the-top of various plants. Therefore, tank mixtures of these materials with **Flumioxazin 44% SC IVM** 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 44% SC IVM** with any adjuvant or fertilizer.

IMPORTANT: When applied as directed, the conifers listed in Table 2 have shown tolerance to **Flumioxazin 44% SC IVM**. However, **Flumioxazin 44% SC IVM** is a very active herbicide. Exercise responsible judgment and caution until familiarity is gained with this product. If a desired conifer species is not listed in Table 2, evaluate the safety of **Flumioxazin 44% SC IVM** 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 this product 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 44% SC IVM**.

Restrictions

- Do not apply more than 2 applications at 12 fl. oz. (0.38 lb. a.i.) per acre or 3 applications at 8 fl. oz. (0.25 lb. a.i.) per acre per year.
- Do not re-apply this product within 30 days.

Table 2. Tolerant Conifer Tree Species

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 scopularum</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 strobes</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 cuspidate</i>

DIRECTIONS FOR USE IN POPLAR PLANTATIONS AND TIMBER RE-FORESTATION SITES

Not for use in California.

Flumioxazin 44% SC IVM 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 44% SC IVM** 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 fl. oz. of **Flumioxazin 44% SC IVM** per acre. Transplant operations must take place at least 3 months after application. To obtain optimal weed control, apply **Flumioxazin 44% SC IVM** before weed emergence or after a burndown herbicide has controlled existing vegetation. If existing weed canopy is less than 40%, **Flumioxazin 44% SC IVM** may be tank mixed with a burndown herbicide to provide pre-emergence weed control.

Apply **Flumioxazin 44% SC IVM** 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 fl. oz. of **Flumioxazin 44% SC IVM** per acre over-the-top of trees prior to budbreak in the Spring or after dormancy in Fall. Do not apply this product over-the-top of trees after budbreak or leaf spotting and defoliation may occur. This product will 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 44% SC IVM**, but may also increase the potential for injury when applied over-the-top of various plants. Therefore, tank mixtures of these materials with this product may be more injurious than **Flumioxazin 44% SC IVM** 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 44% SC IVM** 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 44% SC IVM**. However, **Flumioxazin 44% SC IVM** is a very active herbicide. Exercise responsible judgment and caution until familiarity is gained with **Flumioxazin 44% SC IVM**. 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 this product over-the-top unless trees are more than 1 year old.

Restrictions

- Do not apply more than 2 applications at 12 fl. oz. (0.38 lb. a.i.) per acre or 3 applications at 8 fl. oz. (0.25 lb. a.i.) per acre per year.
- Do not re-apply this product within 30 days.

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. For help with any spill, leak, fire or exposure involving this material, call day or night **CHEMTREC (800) 424-9300**.

PESTICIDE DISPOSAL

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

CONTAINER HANDLING

[Note to Reviewer: The following statement will be included on all Final Printed Labels bearing multiple Container Disposal (Container Handling) statements] **NOTE:** This product is available in multiple containers. Refer to the Net Contents section of this products labeling for the applicable “No refillable” or “Refillable” designation. Follow the container disposal [handling] instructions below that apply to your container type / size.”

[Note to Reviewer: The bracketed section headers will be included when multiple container types / sizes are listed on the label.]

[Nonrefillable Containers 5 gallons or less:] 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 and drain for 10 seconds after the flow begins to drip. 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 or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by State and local authorities. Plastic containers are also disposable by incineration, or, if allowed by State and local authorities, by burning. If burned stay out of smoke.

[Nonrefillable containers larger than 5 gallons:] Nonrefillable container. Do not reuse or refill this container. Offer for recycling if available. If recycling or reconditioning not available, puncture and dispose of in a sanitary landfill, or by other procedures approved by State and local authorities. Plastic containers are also disposable by incineration, or, if allowed by State and local authorities, by burning. If burned stay out of smoke. Triple rinse or pressure 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. 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. **Pressure rinse as follows:** Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

[Refillable containers larger than 5 gallons:] Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or a mix tank. Fill the container about 10% full with water. Agitate vigorously or recirculate water with the pump for two minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures allowed by State and local authorities.

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.

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

FLUMIOXAZIN	GROUP	14	HERBICIDE
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[Sub-Label C - Pages 21-40: Aquatics, Non-Crop/IVM, and T&O]



Flumioxazin 44% SC – Non-Crop

[For the Management of Undesirable Aquatic Vegetation in Slow Moving or Quiescent Waters]

[For Use to Maintain Bare Ground Non-Crop Areas, *Conifer and Poplar Re-Forestation Sites

*Not for use in California.]

[For Use in Container and Field Grown Conifers (Including Christmas Trees) and Deciduous Trees, Around Established Woody Ornamentals in Landscapes, and Maintain Non-Crop Areas and Dormant Bermudagrass]

Active Ingredient:	By Wt.
Flumioxazin*	44%
Other Ingredients:	56%
Total:	100%
*2-[7-fluoro-3,4-dihydro-3-oxo-4-(2-propynyl)-2H-1,4-benzoxazin-6-yl]-4,5,6,7-tetrahydro-1H-isoindole-1,3(2H)-dione	
Flumioxazin 44% SC – Non-Crop contains 4 lbs. flumioxazin per gallon.	

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	
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 by mouth-to-mouth if possible. • Call a poison control center or doctor for further treatment advice.
IF IN EYES:	<ul style="list-style-type: none"> • Hold eye open and rinse slowly and gently with water for 15-20 minutes. • Remove contact lenses, if present, after the first 5 minutes, then continue rinsing. • Call a poison control center or doctor for treatment advice.
IF SWALLOWED:	<ul style="list-style-type: none"> • Call a poison control center or doctor immediately for treatment advice. • Have person sip a glass of water if able to swallow. • Do not induce vomiting unless told to by the poison control center or doctor. • Do not give anything by mouth to an unconscious person.
HOTLINE NUMBERS	
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 .	

[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.]

Manufactured For:

RedEagle International LLC
5143 S. Lakeland Dr., Suite 4
Lakeland, FL 33813

EPA Reg. No.: 85678-XX

EPA Est. No.:

Net Contents:

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

Avoid contact with skin, eyes, or clothing. Harmful if inhaled or absorbed through the skin. Causes moderate eye irritation. Avoid breathing spray mist. Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Applicators and other handlers must wear:

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

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

If not used in accordance with directions on the label, **Flumioxazin 44% SC – Non-Crop** is toxic to non-target plants and aquatic invertebrates. For terrestrial uses: Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not apply directly to treated, finished drinking water reservoirs, or drinking water receptacles when water is intended for human consumption. Drift and run-off may be hazardous to non-target plants and aquatic organisms in water adjacent to treated areas. Do not apply where run-off 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. Use strictly in accordance with the drift and run-off precautions on this label in order to minimize off-site exposures.

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 $\frac{1}{3}$ to $\frac{1}{2}$ of the water area in a single operation and wait at least 10 - 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 agent. 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 (WPS), 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 users 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 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 (WPS) for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural crops on farms, forests, 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 the treated area until sprays have dried.

RESISTANCE MANAGEMENT

Flumioxazin 44% SC – Non-Crop contains flumioxazin and is classified in the N-phenylphthalimide chemical class as a Group 14 herbicide, Inhibitor of protoporphyrinogen oxidase (Protox, PPO). Herbicide resistance is defined as the inherited ability of a plant to survive and reproduce following exposure to a dose of herbicide normally lethal to the wild type. In a plant, resistance may be naturally occurring or induced by such techniques as genetic engineering or selection of variants produced by tissue culture or mutagenesis. Any weed population may contain or develop plants that are naturally resistant to **Flumioxazin 44% SC – Non-Crop** 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 44% SC – Non-Crop** or other Group 14 herbicides.

For resistance management, Flumioxazin 44% SC – Non-Crop is a Group 14 herbicide. Any weed population may contain or develop plants naturally resistant to Flumioxazin 44% SC – Non-Crop 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, consider the below best practices for resistance management:

- Plant into weed-free fields and keep fields as weed-free as possible.
- To the extent possible, use a diversified approach toward weed management. Whenever possible incorporate multiple weed-control practices, for example mechanical cultivation, biological management practices, and crop rotation.
- Fields with difficult to control weeds should be rotated to crops that allow the use of herbicides with alternative mechanisms of action or different management practices.
- To the extent possible do not allow weed escapes to produce seeds, roots or tubers. Manage weed seeds at harvest and post-harvest to prevent a buildup of the weed seed-bank.
- Prevent field-to-field and within-field movement of weed seed or vegetative propagules. Thoroughly clean plant residues from equipment before leaving fields.
- Prevent an influx of weeds into the field by managing field borders.
- Identify weeds present in the field through scouting and field history and understand their biology. The weed-control program should consider all of the weeds present.
- Difficult to control weeds may require sequential applications of herbicides with differing mechanisms of action.
- Apply this herbicide at the correct timing and rate needed to control the most difficult weed in the field.
- Use a broad-spectrum soil-applied herbicide with a mechanism of action that differs from this product as a foundation in a weed-control program. Do not use more than two applications of this or any other herbicide with the same mechanism of action within a single year unless mixed with an herbicide with another mechanism of action with an overlapping spectrum for the difficult-to-control weeds.
- If resistance is suspected, treat weed escapes with an herbicide with a different MOA or use non-chemical methods to remove escapes.
- Monitor treated weed populations for loss of field efficacy.
- Scout field(s) before and after application.
- Report lack of performance to RedEagle International or their representative.

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.

Contact your local sales representative, extension agent, or certified crop advisors to find out if suspected resistant weeds to this MOA have been found in your region. If resistant biotypes of target weeds have been reported, use the application rates of this product specified for your local conditions. Tank mix products so that there are multiple effective mechanisms of action for each target weed.

TANK MIXES NOTICE

Tank mixing and/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 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.

PRODUCT USE INFORMATION

Flumioxazin 44% SC – Non-Crop is a fast acting contact herbicide for use in the management of undesirable aquatic vegetation in slow moving or quiescent waters, to maintain non-crop areas, conifer and poplar re-forestation sites, container and field grown conifers (including Christmas trees) and deciduous trees, around established woody ornamentals in landscapes, and dormant Bermudagrass.

Flumioxazin 44% SC – Non-Crop is also effective as a pre-emergence and/or post-emergence herbicide for control of selected grass and broadleaf weeds.

Flumioxazin 44% SC – Non-Crop 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 44% SC – Non-Crop 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 44% SC – Non-Crop** 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 **Flumioxazin 44% SC – Non-Crop**. However, **Flumioxazin 44% SC – Non-Crop** is a very active herbicide. Exercise responsible judgment and caution until familiarity is gained with **Flumioxazin 44% SC – Non-Crop**. Due to variability within species, crop growth stage, environmental conditions and application techniques, it is directed that users test **Flumioxazin 44% SC – Non-Crop** under local growing conditions on a small number of plants and evaluate for 4 - 6 weeks for phytotoxicity. Testing **Flumioxazin 44% SC – Non-Crop** 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.

Pre-Emergence Application

Make the pre-emergence application of **Flumioxazin 44% SC – Non-Crop** prior to weed emergence. Moisture is necessary to activate **Flumioxazin 44% SC – Non-Crop** for residual weed control. Moisture is needed to move **Flumioxazin 44% SC – Non-Crop** into the soil for pre-emergence weed control. Dry weather following application of **Flumioxazin 44% SC – Non-Crop** may reduce effectiveness. However, when adequate moisture is received after dry conditions, **Flumioxazin 44% SC – Non-Crop** will control susceptible germinating weeds.

When adequate moisture is not received soon after **Flumioxazin 44% SC – Non-Crop** is applied to soil, weed control may be improved by using shallow cultivation. If weeds begin to emerge, irrigate (½" of water) or cultivate uniformly with shallow tillage equipment that will not damage the crop. Deep cultivation reduces the effectiveness of **Flumioxazin 44% SC – Non-Crop** and must be avoided.

Post-Emergence Application

For best results, apply **Flumioxazin 44% SC – Non-Crop** to actively growing weeds. The most effective post-emergence weed control with **Flumioxazin 44% SC – Non-Crop** occurs when applied in combination with a surfactant to weeds less than 2 inches in height. Applying **Flumioxazin 44% SC – Non-Crop** under conditions that do not promote active weed growth will reduce herbicide effectiveness. Do not apply **Flumioxazin 44% SC – Non-Crop** when the weeds are under stress due to drought, excessive water and extremes in temperatures or disease. **Flumioxazin 44% SC – Non-Crop** is most effective when applied under sunny conditions at temperatures above 65°F. **Flumioxazin 44% SC – Non-Crop** is rainfast 1 hour after application. Do not make applications if rain is expected within 1 hour of application or efficacy may be reduced.

Soil Characteristics

Application of **Flumioxazin 44% SC – Non-Crop** 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.

TANK MIXING INSTRUCTIONS

In addition to weeds controlled by **Flumioxazin 44% SC – Non-Crop** used alone, tank mixtures with other herbicides provides a broader spectrum of weed control. **Flumioxazin 44% SC – Non-Crop** can be tank mixed with other herbicides including, but not limited to those products listed below.

Tank Mix Combinations For Non-Selective Vegetation Control

2,4-D	Glyphosate	Norflurazon	Prodiamine
Bromacil	Hexazinone	Oryzalin	Simazine

Chlorsulfuron	Imazapic	Pendimethalin	Sulfometuron-methyl
Clopyralid	Imazapyr	Picloram	Tebuthiuron
Dicamba	Metsulfuron-methyl	Pramitol	Triclopyr
Diuron			

Tank Mixing - Conifer and Poplar Release Treatments

Certain liquid formulations of other pesticides may increase the post-emergence activity of **Flumioxazin 44% SC – Non-Crop**, but may also increase the potential for injury when applied over-the-top of various plants. Therefore, tank mixtures of these materials with **Flumioxazin 44% SC – Non-Crop** may be potential for injury when applied over-the-top of various plants. Therefore, tank mixtures of these materials with **Flumioxazin 44% SC – Non-Crop** may be more injurious than **Flumioxazin 44% SC – Non-Crop** applied alone and need to be tested to determine if they can be used safely on a widespread basis.

Tank Mixing - Container and Field Grown Conifers

Flumioxazin 44% SC – Non-Crop may be tank mixed with products containing the following active ingredients labeled for use in conifers:

Clethodim	Oryzalin	Simazine*
Glyphosate*	Prodiamine	

*Do not apply glyphosate or simazine to containerized ornamentals.

Tank Mixing - Field and Container Grown Deciduous Trees

Flumioxazin 44% SC – Non-Crop may be tank mixed with products containing the following active ingredient labeled for use in deciduous trees:

Clethodim	Oryzalin	Prodiamine
Glyphosate*	Pendimethalin	Simazine*
Metolachlor		

*Do not apply glyphosate or simazine to containerized plants.

Tank Mixing - With Other Turfgrass Herbicides

Flumioxazin 44% SC – Non-Crop may be tank mixed with Manor Herbicide (metsulfuron-methyl).

SPRAY DRIFT MANAGEMENT

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 spray this product under circumstances where spray droplets may drift on to unprotected persons, or plantings of food, forage or crops that might be damaged, or rendered unfit for sale, use or consumption. 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 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, observe them.

APPLICATION AND SPRAYER INFORMATION

Apply **Flumioxazin 44% SC – Non-Crop** 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 plant foliage. **Important:** Thoroughly clean spray equipment, including all tanks, hoses, booms, screens, and nozzles. **Do not use spray equipment used to apply this product to apply other materials or to any desirable plant foliage.** Equipment with this product's residue remaining in the system may result in crop injury to subsequently treated crops.

Broadcast Application

Apply **Flumioxazin 44% SC – Non-Crop**, 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 44% SC – Non-Crop** per acre.

Handgun Application

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

Backpack Application

When applying **Flumioxazin 44% SC – Non-Crop** with a backpack sprayer follow all above restrictions. Calibrate backpack sprayers to deliver 1 gal. of spray solution per 500 - 1,000 sq. ft.

Mixing Rate For Flumioxazin 44% SC – Non-Crop in 1 Gallon of Spray Solution for Backpack Applications

Application Volume	Rate (Fl. Oz./A)	Fl. Oz. to Mix in 1 Gal. Water	Tsps. to Mix in 1 Gal. Water	Mls to Mix in 1 Gal. Water
1 gal. per 500 sq. ft. (87 GPA)	8	0.09	0.6	2.7
	10	0.11	0.7	3.4
	12	0.14	0.8	4.1
1 gal. per 750 sq. ft. (65 GPA)	8	0.14	0.8	4.1
	10	0.17	1	5.1
	12	0.21	1.2	6.1
1 gal. per 1,000 sq. ft. (44 GPA)	8	0.18	1.1	5.3
	10	0.23	1.4	6.8
	12	0.27	1.6	8.1

Example: Applicator wants to spray 1 gal. of **Flumioxazin 44% SC – Non-Crop** solution per 1,000 sq. ft. of ground bed at a rate of 12 fl. oz./A. Mix 0.27 fl. oz. (1.6 tsps. or 8.1 mL) of **Flumioxazin 44% SC – Non-Crop** in 1 gal. of water.

AERIAL APPLICATION

To obtain satisfactory weed control, aerial application of **Flumioxazin 44% SC – Non-Crop**, must provide uniform coverage of surface weeds and sufficient contact time. When applied by air, **Flumioxazin 44% SC – Non-Crop** may not provide adequate control of some submersed weeds. Do not apply by air when significant drift on to non-target plants may occur or when wind velocity is more than 10 mph. Avoid spraying **Flumioxazin 44% SC – Non-Crop** within 200 ft. of dwellings, adjacent sensitive crops, or environmentally sensitive areas. To obtain satisfactory application and avoid drift, the following directions must be observed:

- **Volume and Pressure** - Apply **Flumioxazin 44% SC – Non-Crop** in a minimum of 5 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 specifications. When applying Release Treatments, do not mix **Flumioxazin 44% SC – Non-Crop** with any adjuvant or fertilizer.

Sprayer Preparation

Before applying **Flumioxazin 44% SC – Non-Crop**, start with clean, well maintained application equipment. 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 the spray equipment according to the manufacturer's directions for the last product used before the equipment is used to apply **Flumioxazin 44% SC – Non-Crop**. If 2 or more products were tank mixed prior to this product's application, follow the most restrictive clean-up procedure.

Mixing Instructions

- Mix with water having pH of 5 - 7. If pH is higher than 7, use an appropriate buffer to reduce pH to desirable range.
- Fill clean spray tank ½ full of desired level with water and add buffering agent if necessary.
- Add the required amount of **Flumioxazin 44% SC – Non-Crop** to the spray tank while agitating.
- Fill spray tank to desired level with water. Ensure that **Flumioxazin 44% SC – Non-Crop** is thoroughly mixed before making applications. Continue agitation until spray solution has been applied.
- If tank mixing this product with other labeled herbicides, add water soluble bags first, followed by dry formulations, flowables, emulsifiable concentrates and then solutions.
- Mix the amount of spray solution that can be applied the day of mixing. Apply this product within 48 hours of mixing.

CARRIER VOLUME AND SPRAY PRESSURE**Pre-Emergence Application**

To ensure uniform coverage, use 10 - 40 gals. of spray solution per acre. When making backpack applications, apply 50 - 100 gals. of spray solution per acre. Nozzle must meet manufacturer's gallonage and pressure directions for pre-emergence herbicide application.

Post-Emergence Application

To ensure thorough coverage, use 15 - 30 gals. of spray solution per acre. Use 20 - 30 gals. per acre if dense vegetation or heavy residue is present on the soil surface. When applying with a backpack sprayer, apply 1 gals. of spray solution per 500 - 1,000 sq. ft.

Nozzle selection must meet manufacturer's gallonage and pressure directions for post-emergence herbicide 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. Follow adjuvant manufacturer's label rates. Verify mixing compatibility by a jar test before using.

When applying **Flumioxazin 44% SC – Non-Crop** after weed emergence in terrestrial settings, mix with an agronomically approved adjuvant. A non-ionic surfactant containing at least 80% active ingredient must be used when applying this product as part of a post-emergence weed control program. Verify mixing compatibility by a jar test before using.

Jar Test to Determine Compatibility of Adjuvants and Flumioxazin 44% SC – Non-Crop

Perform a jar test before mixing commercial quantities of **Flumioxazin 44% SC – Non-Crop**, 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 the water to a quart jar. Use water from the same source and temperature as which will be used in the spray tank mixing operation.
2. Add 1 mL of **Flumioxazin 44% SC – Non-Crop** to the quart jar for every 3 fl. oz. of **Flumioxazin 44% SC – Non-Crop** per acre being applied (4 mL if 12 fl. oz. per acre is the desired rate of **Flumioxazin 44% SC – Non-Crop**), gently mix until product goes into suspension.
3. Add 1 mL of non-ionic surfactant or 60 mL of crop oil concentrate, 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. If any of the following conditions are observed question the choice of adjuvant:
 - a) Layer of oil or globules on the mixture's surface.
 - b) Flocculation: fine particles in suspension or as a layer on the bottom of the jar.
 - c) Clabbering: Thickening texture (coagulated) like gelatin.

Sprayer Clean-Up

If spray equipment is dedicated to herbicide applications, the following steps are to clean the spray equipment:

- 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 herbicides, it must be thoroughly cleaned following application of **Flumioxazin 44% SC – Non-Crop**. 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.

WEEDS CONTROLLED

Table 1. Weeds Controlled By Flumioxazin 44% SC – Non-Crop

When **Flumioxazin 44% SC – Non-Crop** is applied pre-emergence or post-emergence at directed rates and weed stages, the following grasses and broadleaf weeds are controlled:

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 hirsute</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	
Bristly*	<i>Setaria verticillata</i>
Giant*	<i>Setaria faberi</i>
Green*	<i>Setaria viridis</i>
Yellow*	<i>Setaria glauca</i>
Galinsoga, Hairy	<i>Galinsoga ciliate</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>
Ladysthumb	<i>Polygonum persicaria</i>
Lambsquarters, Common	<i>Chenopodium album</i>
Lovegrass, California*	<i>Eragrostis diffusa</i>
Liverwort	<i>Marchantia polymorpha</i>
Mallow	
Common	<i>Malva neglecta</i>
Little	<i>Malva parviflora</i>
Venice	<i>Hibiscus trionum</i>
Marsh Parsley	<i>Apium leptophyllum</i>
Mayweed*	<i>Anthemis cotula</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>
Moss	<i>Bryum</i> spp.
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>
Buckhorn*	<i>Plantago lanceolata</i>
Poinsettia, Wild	<i>Euphorbia heterophylla</i>
Pondweed, Sago	<i>Potamogeton pectinatus</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 ciliate</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 burse-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</i> Engelm
Spotted	<i>Euphorbia maculate</i>
Starbur, Bristly*	<i>Acanthospermum hispidum</i>
Tassle-flower	<i>Emilia</i> spp.
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.

AQUATIC WEED CONTROL

Flumioxazin 44% SC – Non-Crop 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

Flumioxazin 44% SC – Non-Crop is most effective when applied to young, actively growing weeds in water with a pH of less than 8.5. Application of **Flumioxazin 44% SC – Non-Crop** to public aquatic areas may require special approval and/or permits. Consult with local State agencies, if required.

USE RESTRICTIONS

- Do not exceed 400 ppb of this product during any 1 application.
- Do not apply to intertidal or estuarine areas.
- Do not use treated water for irrigation purposes on food crops until at least 5 days after application.
- Do not use in water utilized for crawfish farming.
- Do not re-treat the same section of water with **Flumioxazin 44% SC – Non-Crop** more than 6 times per year.

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.

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
	Less than 200 ppb	N/A	1 day	5 days

Subsurface	200 - 300 ppb	N/A	2 days	5 days
	300 - 400 ppb	N/A	3 days	5 days

DIRECTIONS FOR USE TO CONTROL FLOATING AND EMERGED WEEDS USING SURFACE APPLICATION

Flumioxazin 44% SC – Non-Crop will control weeds and algae listed in Table 2 when applied as a broadcast spray with appropriate equipment. For best results, apply **Flumioxazin 44% SC – Non-Crop** to the foliage of actively growing weeds.

Table 2. 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>
Mosquito Fern	<i>Azolla</i> spp.
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>

*Coverage is essential for effective duckweed and watermeal control. Any duckweed and/or watermeal escapes left in the water column will quickly re-infest the water body. Apply 200 ppb concentration throughout the water body to control 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 44% SC – Non-Crop** as a broadcast spray at 6 - 12 fl. oz. of formulated product per acre plus an adjuvant approved for use in aquatics.

Flumioxazin 44% SC – Non-Crop 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 44% SC – Non-Crop** in a minimum of 30 gals. 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 a treatment once the return of these weeds is first observed, but no sooner than 28 days after the last treatment.

Application of **Flumioxazin 44% SC – Non-Crop** during early morning hours may 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.

Flumioxazin 44% SC – Non-Crop 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.

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

Flumioxazin 44% SC – Non-Crop will control submersed and floating weeds listed in Table 3 when applied subsurface with appropriate equipment.

Table 3. 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 Treatment

Apply **Flumioxazin 44% SC – Non-Crop** at a rate that will produce an initial concentration of 200 - 400 ppb (of active ingredient

flumioxazin) in the water column.

Flumioxazin 44% SC – Non-Crop 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 44% SC – Non-Crop** under these conditions may provide only partial weed control, and regrowth is likely. For best control, apply **Flumioxazin 44% SC – Non-Crop** in a minimum of 30 gals. 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 **Flumioxazin 44% SC – Non-Crop** is required for optimal performance. Application of **Flumioxazin 44% SC – Non-Crop** 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 4, **Subsurface Application Rates** to determine the amount of **Flumioxazin 44% SC – Non-Crop** 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, make a treatment once the return of these weeds is first observed, but no sooner than 28 days after the last treatment.

When applying **Flumioxazin 44% SC – Non-Crop** 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.

Flumioxazin 44% SC – Non-Crop 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 **Flumioxazin 44% SC – Non-Crop** 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 **Flumioxazin 44% SC – Non-Crop**. 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 44% SC – Non-Crop** 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 44% SC – Non-Crop** 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 44% SC – Non-Crop** will cause some discoloration and loss of growing tips, but regrowth will be rapid.

Tank mixing **Flumioxazin 44% SC – Non-Crop** with other registered herbicides is advised, especially if hydrilla is approaching maturity or biomass is heavy.

Table 4. Subsurface Application Rates

Water Depth (Feet)	Pints of Flumioxazin 44% SC – Aquatic 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

Example: to achieve an initial concentration of 200 ppb of flumioxazin in a 4 ft. deep water column, apply 4.2 pts. of **Flumioxazin 44% SC – Non-Crop** per surface acre.

BARE GROUND NON-CROP AREAS, CONIFER, AND POPLAR RE-FORESTATION SITES

DIRECTIONS FOR USE TO MAINTAIN BARE GROUND NON-CROP AREAS

Flumioxazin 44% SC – Non-Crop, 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 44% SC – Non-Crop** only to:

- Bare ground under guard rails, above-ground pipelines, railroad beds, railroad yards, and surrounding areas.
- Bare ground in parking and storage areas, 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 around farm buildings and along ungrazed fence rows, wind breaks, and shelter belts.
- Road surfaces, improved roadside areas, and gravel shoulders.

Follow all applicable directions as outlined above under **PRODUCT USE INFORMATION**. See Table 1 under **WEEDS CONTROLLED** section for a list of broadleaf weeds and grasses controlled by **Flumioxazin 44% SC – Non-Crop**.

Flumioxazin 44% SC – Non-Crop offers residual and post-emergence control of susceptible broadleaf and grass weeds as well as additional mode of action to assist in the control of ALS (acetolactate synthase) 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.

Restrictions

- Do not apply more than 12 fl. oz. (0.38 lb. a.i.) of this product per acre per application.
- Do not apply more than 24 fl. oz. (0.75 lb. a.i.) of this product per acre per year.
- Do not apply more than 2 applications at 12 fl. oz. (0.38 lb. a.i.) per acre or 3 applications at 8 fl. oz. (0.25 lb. a.i.) per acre per year.
- Do not apply within 300 feet of non-dormant pome or stone fruit crops.
- Do not re-apply this product within 30 days.
- 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 to moist or wet desirable plant foliage.

Precautions

- Treatment of powdery, dry soil or light sandy 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.

Pre-Emergence Application

Apply 8 - 12 fl. oz. (0.25 - 0.38 lb. a.i.) per acre of **Flumioxazin 44% SC – Non-Crop** per broadcast acre as a pre-emergence application. Make pre-emergence (to weed emergence) applications of **Flumioxazin 44% SC – Non-Crop** must be made to a weed free soil surface. Pre-emergence applications of **Flumioxazin 44% SC – Non-Crop** must be completed prior to weed emergence.

Post-Emergence Application

Apply 8 - 12 fl. oz. (0.25 - 0.38 lb. a.i.) per acre of **Flumioxazin 44% SC – Non-Crop** 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 44% SC – Non-Crop** activity on emerged weeds. Thorough spray coverage is necessary to maximize the post-emergence activity of **Flumioxazin 44% SC – Non-Crop**. Emerged weeds are controlled post-emergence with **Flumioxazin 44% SC – Non-Crop**, however, translocation of **Flumioxazin 44% SC – Non-Crop** 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 44% SC – Non-Crop** occurs when applied in combination with a surfactant to weeds less than 2 inches in height.

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

Flumioxazin 44% SC – Non-Crop 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. See Table 1 under **WEEDS CONTROLLED** section for a list of broadleaf weeds and grasses. **Flumioxazin 44% SC – Non-Crop** may be used 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 fl. oz. of **Flumioxazin 44% SC – Non-Crop** per acre. Transplant operations must take place at least 3 months after application. To obtain optimal weed control, apply **Flumioxazin 44% SC – Non-Crop** before weed emergence or after a burndown herbicide has controlled existing vegetation. If existing weed canopy is less than 40%, **Flumioxazin 44% SC – Non-Crop** may be tank mixed with a burndown herbicide to provide pre-emergence weed control.

Apply **Flumioxazin 44% SC – Non-Crop** 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 to 12 fl. oz. of **Flumioxazin 44% SC – Non-Crop** per acre over-the-top of trees prior to budbreak in the Spring or after dormancy in Fall. Do not apply this product over-the-top of trees after budbreak or needle spotting and defoliation may occur. **Flumioxazin 44% SC – Non-Crop** will not affect new growth of trees. See Table 5 for a list of tolerant conifers for over-the-top treatments.

IMPORTANT: When applied as directed, the conifers listed in Table 5 have shown tolerance to **Flumioxazin 44% SC – Non-Crop**. However, **Flumioxazin 44% SC – Non-Crop** is a very active herbicide. Exercise responsible judgment and caution until familiarity is gained with **Flumioxazin 44% SC – Non-Crop**. If a desired conifer species is not listed in Table 5, evaluate the safety of **Flumioxazin 44% SC – Non-Crop** on a small number of plants under commercial growing conditions, and monitor plant response for 4 - 6 weeks for phytotoxicity. Test **Flumioxazin 44% SC – Non-Crop** on a small number of plants to determine if **Flumioxazin 44% SC – Non-Crop** can be used safely on a widespread basis. Do not apply this product 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 this product.

Restrictions

- Do not apply more than 12 fl. oz. (0.38 lb. a.i.) of this product per acre per application.
- Do not apply more than 24 fl. oz. (0.75 lb. a.i.) of this product per acre per year.
- Do not apply more than 2 applications at 12 fl. oz. (0.38 lb. a.i.) per acre or 3 applications at 8 fl. oz. (0.25 lb. a.i.) per acre per year.

- Do not apply within 300 feet of non-dormant pome or stone fruit crops.
- Do not re-apply this product within 30 days.
- 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 to moist or wet desirable plant foliage.

Precautions

- Treatment of powdery, dry soil or light sandy 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.

Table 5. Tolerant Conifer Tree Species

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 scopularum</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 strobes</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>
Yew	
English	<i>Taxus baccata</i>
Japanese	<i>Taxus cuspidate</i>

DIRECTIONS FOR USE IN POPLAR PLANTATIONS AND TIMBER RE-FORESTATION SITES

Not for use in California.

Flumioxazin 44% SC – Non-Crop 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. See Table 1 under **WEEDS CONTROLLED** section for a list of broadleaf weeds and grasses. **Flumioxazin 44% SC – Non-Crop** 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 fl. oz. of **Flumioxazin 44% SC – Non-Crop** per acre. Transplant operations must take place at least 3 months after application. To obtain optimal weed control, apply **Flumioxazin 44% SC – Non-Crop** before weed emergence or after a burndown

herbicide has controlled existing vegetation. If existing weed canopy is less than 40%, **Flumioxazin 44% SC – Non-Crop** may be tank mixed with a burndown herbicide to provide pre-emergence weed control.

Apply **Flumioxazin 44% SC – Non-Crop** 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 fl. oz. of **Flumioxazin 44% SC – Non-Crop** per acre over-the-top of trees prior to budbreak in the Spring or after dormancy in Fall. Do not apply **Flumioxazin 44% SC – Non-Crop** over-the-top of trees after budbreak or leaf spotting and defoliation may occur. **Flumioxazin 44% SC – Non-Crop** will not affect new growth of trees of tolerant poplars for over-the-top treatments.

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 44% SC – Non-Crop**. However, **Flumioxazin 44% SC – Non-Crop** is a very active herbicide. Exercise responsible judgment and caution until familiarity is gained with **Flumioxazin 44% SC – Non-Crop**. Test **Flumioxazin 44% SC – Non-Crop** on a small number of plants to determine if **Flumioxazin 44% SC – Non-Crop** can be used safely on a widespread basis. Do not apply this product over-the-top unless trees are more than 1 year old.

Restrictions

- Do not apply more than 12 fl. oz. (0.38 lb. a.i.) of this product per acre per application.
- Do not apply more than 24 fl. oz. (0.75 lb. a.i.) of this product per acre per year.
- Do not apply more than 2 applications at 12 fl. oz. (0.38 lb. a.i.) per acre or 3 applications at 8 fl. oz. (0.25 lb. a.i.) per acre per year.
- Do not apply within 300 feet of non-dormant pome or stone fruit crops.
- Do not re-apply this product within 30 days.
- 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 to moist or wet desirable plant foliage.

Precautions

- Treatment of powdery, dry soil or light sandy 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.

DIRECTIONS FOR USE TURF & ORNAMENTAL SITES

Flumioxazin 44% SC – Non-Crop 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 non-crop areas and dormant Bermudagrass. See Table 1 under **WEEDS CONTROLLED** section for a list of broadleaf weeds and grasses.

Flumioxazin 44% SC – Non-Crop 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.

Restrictions

- Do not apply more than 12 fl. oz. (0.38 lb. a.i.) of this product per acre per application.
- Do not apply more than 24 fl. oz. (0.75 lb. a.i.) of this product per acre per year.
- Do not apply more than 2 applications of this product per year.
- 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.
- Only apply to healthy established trees and ornamentals.

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

Apply **Flumioxazin 44% SC – Non-Crop** 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 6 have exhibited tolerance to **Flumioxazin 44% SC – Non-Crop** only when the product is applied to dormant or hardened off plant material. If applied over-the-top of plant foliage, apply **Flumioxazin 44% SC – Non-Crop** 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 fl. oz. (0.25 - 0.38 lb. a.i. per acre) of **Flumioxazin 44% SC – Non-Crop** 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 44% SC – Non-Crop** may be sprayed directly over conifers listed in Table 6, 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 44% SC – Non-Crop** 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 44% SC – Non-Crop** as a directed spray, taking care to minimize direct contact or drift of sprays onto foliage. Mechanically incorporating **Flumioxazin 44% SC – Non-Crop** after application will disturb soil surfaces, which may reduce herbicidal efficacy. When applied before weed germination, **Flumioxazin 44% SC – Non-Crop** will control broadleaf and grassy weeds listed in Table 1.

Post-Emergence Application

Apply 8 - 12 fl. oz. (0.25 - 0.38 lb. a.i.) per acre of **Flumioxazin 44% SC – Non-Crop** per broadcast acre after weeds have emerged. **Flumioxazin 44% SC – Non-Crop** may be sprayed directly over conifers listed in Table 6, 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 44% SC – Non-Crop** 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 44% SC – Non-Crop** 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 44% SC – Non-Crop** will provide post-emergence control of broadleaf weeds and grasses listed in Table 1. Post-emergence control of **Flumioxazin 44% SC – Non-Crop** 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.

Tolerant Conifers

Flumioxazin 44% SC – Non-Crop may be applied to the conifer species listed in Table 6. If a desired conifer species is not listed in Table 6, evaluate the safety of **Flumioxazin 44% SC – Non-Crop** on a small number of plants under commercial growing conditions, and monitor plant response for 4 - 6 weeks for phytotoxicity. Testing **Flumioxazin 44% SC – Non-Crop** on a small number of plants will determine if **Flumioxazin 44% SC – Non-Crop** can be used safely on a widespread basis.

Restrictions

- Do not apply more than 2 applications at 12 fl. oz. (0.38 lb. a.i.) per acre or 3 applications at 8 fl. oz. (0.25 lb. a.i.) per acre per year.
- Do not re-apply this product within 30 days.

Table 6. Tolerant Conifer Tree Species

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 scopularum</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 strobes</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 cuspidate</i>

DIRECTIONS FOR USE IN CONTAINER AND FIELD DECIDUOUS TREES, AND NON-BEARING FRUIT AND NON-BEARING NUT TREES

Flumioxazin 44% SC – Non-Crop may be applied as single or split applications to container and field grown deciduous trees with an established root system. The deciduous trees listed in Table 7 have exhibited tolerance to **Flumioxazin 44% SC – Non-Crop** only when applied to the soil and base of plants. Application of **Flumioxazin 44% SC – Non-Crop** to deciduous foliage or green bark may result in unacceptable injury.

Flumioxazin 44% SC – Non-Crop may be applied 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 44% SC – Non-Crop** 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 44% SC – Non-Crop** 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 fl. oz. (0.25 - 0.38 lb. a.i.) per acre of **Flumioxazin 44% SC – Non-Crop** per broadcast acre as a pre-emergence (to weed emergence) application. Apply **Flumioxazin 44% SC – Non-Crop** to weed free deciduous trees 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 44% SC – Non-Crop** may be applied 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 44% SC – Non-Crop** will disturb soil surfaces, which may reduce herbicidal efficacy. The use of spray shields that limit exposure of foliage and bark to **Flumioxazin 44% SC – Non-Crop** is suggested. When applied before weed germination, **Flumioxazin 44% SC – Non-Crop** will control broadleaf and grassy weeds. See Table 1 under **WEEDS CONTROLLED** section for a list of broadleaf weeds and grasses.

Post-Emergence Application

Apply 8 - 12 fl. oz. (0.25 - 0.38 lb. a.i.) per acre of **Flumioxazin 44% SC – Non-Crop** per broadcast acre plus an adjuvant (0.25% v/v non-ionic surfactant). Make post-emergence (to weed emergence) applications of **Flumioxazin 44% SC – Non-Crop** when weeds are actively growing and are no larger than 2 inches in height. The addition of a surfactant enhances **Flumioxazin 44% SC – Non-Crop** activity on emerged weeds. Thorough spray coverage is necessary to maximize the post-emergence activity of **Flumioxazin 44% SC – Non-Crop**. When applied after weed germination, **Flumioxazin 44% SC – Non-Crop** will provide pre-emergence and post-emergence control of broadleaf weeds and grasses. See Table 1 under **WEEDS CONTROLLED** section for a list of broadleaf weeds and grasses. Post-emergence control of **Flumioxazin 44% SC – Non-Crop** 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.

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

Flumioxazin 44% SC – Non-Crop may be applied as a directed spray to the deciduous, non-bearing fruit and non-bearing nut trees species listed in Table 7. If a desired tree species is not listed in Table 7, evaluate the safety of **Flumioxazin 44% SC – Non-Crop** on a small number of plants under commercial growing conditions and monitor plant response for 4 - 6 weeks for phytotoxicity. Testing **Flumioxazin 44% SC – Non-Crop** on a small number of plants will determine if **Flumioxazin 44% SC – Non-Crop** can be used safely on a widespread basis.

Restrictions

- Do not apply more than 2 applications at 12 fl. oz. (0.38 lb. a.i.) per acre or 3 applications at 8 fl. oz. (0.25 lb. a.i.) per acre per year.
- Do not re-apply this product within 30 days.

Table 7. 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>Cornus</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 NON-CROP AREAS

Application of **Flumioxazin 44% SC – Non-Crop** 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 6 and 7. **Flumioxazin 44% SC – Non-Crop** may also be applied to maintain weed control in non-crop areas in apartment complexes, fence rows, gravel surfaces and driveways, ground mats and pads prior to the addition of containerized plants, golf courses, lumberyards, office complexes, parks, parking areas, recreational sites, schools, sidewalks, storage areas, grass water waterways, rain gardens, and other similar industrial sites.

Flumioxazin 44% SC – Non-Crop 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. See Table 1 under **WEEDS CONTROLLED** section for a list of broadleaf weeds and grasses. 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. The use of spray shields that limit the plant exposure to this product is directed when applying this product near desirable plants.

Pre-Emergence Application (No Weeds are Present)

Mix 0.18 - 0.27 fl. oz. (5.3 - 8.1 mL) of **Flumioxazin 44% SC – Non-Crop** per gallon of spray solution, and apply 1 gal. of spray solution to 1,000 sq. ft. (8 - 12 fl. oz./A) prior to weed germination (see **Backpack Application** table for more options and details). Apply **Flumioxazin 44% SC – Non-Crop** to weed free soil, mulch or gravel surfaces. Moisture is necessary to activate **Flumioxazin 44% SC – Non-Crop** on soil for residual weed control. When applied before weed germination, **Flumioxazin 44% SC – Non-Crop** will control the broadleaf weeds and grasses listed in Table 1.

Established landscape ornamentals have shown tolerance to **Flumioxazin 44% SC – Non-Crop 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 44% SC – Non-Crop** 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 0.18 - 0.27 fl. oz. (5.3 - 8.1 mL) of **Flumioxazin 44% SC – Non-Crop** per gallon of spray solution (8 - 12 fl. oz./A), and apply 1 gal. of spray solution to 1,000 sq. ft. to actively growing weeds (see the **Mixing Rate For Flumioxazin 44% SC – Non-Crop in 1 Gallon of Spray Solution for Backpack Applications** table for backpack sprayers). Tank mixing **Flumioxazin 44% SC – Non-Crop** with glyphosate will increase the spectrum of post-emergence weed control over **Flumioxazin 44% SC – Non-Crop** alone, provide faster post-emergence weed control than glyphosate alone, and provide pre-emergence and post-emergence control of the broadleaf weeds and grasses listed in Table 1.

Established landscape ornamentals have shown tolerance to applications of **Flumioxazin 44% SC – Non-Crop** 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 44% SC – Non-Crop** 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 run-off.

IMPORTANT: Completely read and follow the glyphosate label. When tank mixing **Flumioxazin 44% SC – Non-Crop** with other products, always follow the most restrictive use conditions on either label.

Restrictions

- Do not apply more than 12 fl. oz. (0.38 lb. a.i.) of this product per acre per application.
- Do not apply more than 24 fl. oz. (0.75 lb. a.i.) of this product per acre per year.
- Do not apply more than 2 applications at 12 fl. oz. (0.38 lb. a.i.) per acre or 3 applications at 8 fl. oz. (0.25 lb. a.i.) per acre per year.
- Do not apply more than 2 applications per year.
- Do not re-apply this product within 30 days.
- Do not apply this product within any enclosed structure in residential or commercial landscapes.
- 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.
- Do not harvest fruit or nuts from treated trees within 1 year of application.

DIRECTIONS FOR USE ON DORMANT BERMUDAGRASS GROWN ON RESIDENTIAL SITES, GOLF COURSES, SOD PRODUCTION AND SIMILAR AREAS

Flumioxazin 44% SC – Non-Crop may be applied as a single or split application to well established dormant Bermudagrass. **Flumioxazin 44% SC – Non-Crop** will provide pre-emergence and early post-emergence control of annual bluegrass, chickweed, henbit, and other Winter annual weeds. See Table 1 under **WEEDS CONTROLLED** section for a list of broadleaf weeds and grasses. **Flumioxazin 44% SC – Non-Crop** will also provide pre-emergence control of crabgrass, goosegrass, and other Summer annual weeds. **Flumioxazin 44% SC – Non-Crop** may be applied 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, residential turf, and other similar sites. Bermudagrass exhibits tolerance to **Flumioxazin 44% SC – Non-Crop** only when applied to semi-dormant or completely dormant turf in the late Fall and before active growth resumes in the late Winter/early Spring. Application of **Flumioxazin 44% SC – Non-Crop** to actively growing turfgrass (warm season and cool season) or during green-up may cause unacceptable injury.

Broadcast Applications

Apply 8 - 12 fl. oz. of **Flumioxazin 44% SC – Non-Crop** per broadcast acre as a pre-emergence (to weed emergence) application. If weeds are present at the time of application apply **Flumioxazin 44% SC – Non-Crop** plus an adjuvant (0.25% v/v non-ionic surfactant). Make post-emergence (to weed emergence) applications of **Flumioxazin 44% SC – Non-Crop** 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 44% SC – Non-Crop**. When applied after weed germination, **Flumioxazin 44% SC – Non-Crop** will provide pre-emergence and post-emergence control of broadleaf weeds and grasses. See Table 1 under **WEEDS CONTROLLED** section for a list of broadleaf weeds and grasses. Post-emergence weed control with **Flumioxazin 44% SC – Non-Crop** 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.

Flumioxazin 44% SC – Non-Crop will provide best control of annual bluegrass when applied in the late Fall while plants are small. Control may be less effective when applied in the Winter during under cold conditions when weeds are not actively growing. A second application of **Flumioxazin 44% SC – Non-Crop** may be required to provide adequate season-long annual bluegrass control. **Flumioxazin 44% SC – Non-Crop** will provide best control of crabgrass, goosegrass, and other Summer annual weeds when applied in the late Winter before turfgrass resumes active growth.

Tank Mixing With Other Turfgrass Herbicides

Flumioxazin 44% SC – Non-Crop may be tank mixed with Manor Herbicide (metsulfuron-methyl).

Use Around Bentgrass And Poa Greens

Flumioxazin 44% SC – Non-Crop has limited potential for lateral movement on level terrain, but can potentially move down slope after excessive rainfall and affect sensitive turf species including bentgrass and *Poa trivialis*. When applied upslope from bentgrass greens or Bermudagrass greens overseeded with *Poa trivialis*, allow an adequate buffer zone between greens and the treated area. If uncertain about the size of the buffer, 15 ft. is suggested. Risk of movement is decreased when **Flumioxazin 44% SC – Non-Crop** is applied to soil at less than field capacity. Avoid application when heavy rain is imminent or when the soil is saturated.

Restrictions

- Do not apply more than 2 applications at 12 fl. oz. (0.38 lb. a.i.) per acre or 3 applications at 8 fl. oz. (0.25 lb. a.i.) per year.
- Do not re-apply this product within 30 days.
- Do not apply to golf course putting greens.
- Do not apply to warm season turfgrass that has been overseeded with cool season turfgrass (ex. perennial rye, *Poa trivialis*).
- 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 in Fall before turfgrass has ceased active growth or in late Winter/early Spring after turfgrass has resumed active growth.

Precautions

- Exercise good judgment and caution when applying to dormant turfgrass until familiarity is gained with this product.
- Allow 8 weeks between application and seeding or sodding of turfgrass.

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. For help with any spill, leak, fire or exposure involving this material, call day or night **CHEMTREC (800) 424-9300**.

PESTICIDE DISPOSAL

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

CONTAINER HANDLING

[Note to Reviewer: The following statement will be included on all Final Printed Labels bearing multiple Container Disposal (Container Handling) statements] **NOTE:** This product is available in multiple containers. Refer to the Net Contents section of this products labeling for the applicable “No refillable” or “Refillable” designation. Follow the container disposal [handling] instructions below that apply to your container type / size.”

[Note to Reviewer: The bracketed section headers will be included when multiple container types / sizes are listed on the label.]

[Nonrefillable Containers 5 gallons or less:] 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 and drain for 10 seconds after the flow begins to drip. 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 or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by State and local authorities. Plastic containers are also disposable by incineration, or, if allowed by State and local authorities, by burning. If burned stay out of smoke.

[Nonrefillable containers larger than 5 gallons:] Nonrefillable container. Do not reuse or refill this container. Offer for recycling if available. If recycling or reconditioning not available, puncture and dispose of in a sanitary landfill, or by other procedures approved by State and local authorities. Plastic containers are also disposable by incineration, or, if allowed by State and local authorities, by burning. If burned stay out of smoke. Triple rinse or pressure 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. 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. **Pressure rinse as follows:** Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

[Refillable containers larger than 5 gallons:] Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or a mix tank. Fill the container about 10% full with water. Agitate vigorously or recirculate water with the pump for two minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures allowed by State and local authorities.

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.

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