{Base Container Label}

GROUP	14	HERBICIDE

FLUMIOXAZIN 51WDG Herbicide

HERBICIDE
Water Dispersible Granules
COMMERCIAL

Preemergence weed control in labelled crops and to maintain bare ground non-crop areas, including bare ground non-crop areas in and around ornamental nurseries and on farms.

ACTIVE INGREDIENT:

Flumioxazin……51.1%

READ THE LABEL BEFORE USE

Warning: This product contains the allergen sulfite.

REGISTRATION NO.: 29235
PEST CONTROL PRODUCTS ACT

CAUTION - POISON

Net Contents: 500 g – 25 kg

Valent Canada, Inc.
201-230 Hanlon Creek Blvd.
Guelph, ON
N1C 0A1
(519)-767-9262
www.valent.ca

NOTICE TO USER

This pest control product is to be used only in accordance with the directions on the label. It is an offence under the ***PEST CONTROL PRODUCTS ACT*** to use this product in a way that is inconsistent with the directions on the label.

FIRST AID

IF IN EYES: 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 eye. Call a poison control centre or doctor for treatment advice.

IF ON SKIN OR CLOTHING: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control centre or doctor for treatment advice.

IF INHALED: Move the person to fresh air. If the person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control centre or doctor for further treatment advice.

IF SWALLOWED: Call a poison control centre or doctor immediately for treatment advice. Have the person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control centre or doctor. Do not give anything by mouth to an unconscious person.

Take container, label or product name and Pest Control Product Registration Number with you when seeking medical attention.

IN CASE OF EMERGENCY INVOLVING A MAJOR SPILL OR POISONING CALL 1-800-682-5368

TOXICOLOGICAL INFORMATION

There is no specific antidote for this product. Apply symptomatic therapy.

PRECAUTIONS

KEEP OUT OF REACH OF CHILDREN. Avoid breathing dust and spray mist. Avoid contact with skin, eyes or clothing. Harmful if inhaled.

Follow the personal protective equipment, engineering controls, and restriction requirements for the appropriate mixer/loader and applicator scenarios as described in the table below:

Equipment	Personal Protective Equipment		Maximum amount of product handled per day
	Mixer/Loader/ Clean-up and Repair	Applicator	
Groundboom	Chemical-resistant coveralls over long-sleeved shirt and long pants, chemical-resistant gloves, socks, chemical-resistant footwear, a respirator with a NIOSH-approved organic-vapour-removing cartridge with a prefilter approved for pesticides OR a NIOSH-approved canister approved for pesticides and protective eyewear (goggles or face shield).	Open cab: Coveralls over a long-sleeved shirt and long pants, chemical-resistant gloves, socks and shoes.	65 kg
		Closed Cab: Long-sleeved shirt, long pants, socks and shoes. Gloves are not required.	76 kg
Right-of-Way-sprayer	Long-sleeved shirt, long pants, chemical-resistant gloves, socks, shoes and protective eyewear (goggles or face shield).	Chemical-resistant coveralls over a long-sleeved shirt and long pants, chemical-resistant gloves, socks and chemical-resistant footwear.	7 kg
Mechanically-pressurized handgun	Chemical-resistant coveralls over a long-sleeved shirt, long pants, chemical-resistant gloves, socks, chemical-resistant footwear and a respirator with a NIOSH-approved organic-vapour-removing cartridge with a prefilter approved for pesticides, or a NIOSH-approved canister approved for pesticides. Wear protective eyewear (goggles or face shield) during mixing, loading clean-up and repair		2.5 kg
Backpack	Long-sleeved shirt, long pants, chemical-resistant gloves, socks and shoes. Wear protective eyewear (goggles or face shield) during mixing, loading, clean-up and repair.		Not applicable
Manually-pressurized handwand	Long-sleeved shirt, long pants, chemical-resistant gloves, socks and shoes. Wear protective eyewear (goggles or face shield) during mixing, loading, clean-up and repair.		Not applicable

Do not apply when weather conditions favour spray drift from treated areas. Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Keep all unprotected persons out of operating areas, or vicinity where there may be drift. Only protected handlers may be in the area during application.

Apply only when the potential for drift beyond the area to be treated is minimal. Take into consideration wind speed, wind direction, temperature inversions, application equipment, and sprayer settings.

In non-crop areas, **DO NOT** enter or allow entry into treated areas until the sprays have dried. For crop uses, **DO NOT** enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 6 days for hand-set irrigation of coniferous trees. For all other postapplication activities, **DO NOT** enter or allow worker entry into treated areas during the REI of 12 hours.

Do not apply to fine-textured soils.

Pregrazing Intervals:
Following treatment with FLUMIOXAZIN 51 WDG, follow these grazing restrictions:
For field corn:

- DO NOT permit livestock to graze fields within 93 days after application.
- DO NOT harvest green feed or silage within 93 days after application.

For soybeans:

- DO NOT harvest as green feed or permit livestock to graze fields within 21 days after application.
- DO NOT cut hay/fodder within 50 days after application.

For wheat:

- DO NOT harvest as green feed or permit livestock to graze fields within 26 days after application.
- DO NOT cut hay/fodder within 52 days after application.

For all other crops:

- DO NOT graze, cut or feed treated crops to livestock.

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

Do not apply within 100 metres of non-dormant pears.

Do not apply to powdery soils or soils that are susceptible to wind displacement unless irrigation can be applied immediately after application.

If this pest control product is to be used on a commodity that may be exported to the U.S. and you require information on acceptable residue levels in the U.S., contact Valent Canada, Inc.

Read and understand the entire label before opening this product. If you have any questions, call the manufacturer at 1-800-682-5368 or obtain technical advice from the distributor or your provincial agricultural representative. Application of this specific product must meet and/or conform to the following:

ENVIRONMENTAL PRECAUTIONS

This product is toxic to aquatic organisms and non-target terrestrial plants. Observe spray buffer zones specified under DIRECTIONS FOR USE. Toxic to small wild mammals. Toxic to certain beneficial insects. Minimize spray drift to reduce harmful effects on beneficial insects in habitats next to the application site such as hedgerows and woodland.

DISPOSAL

DO NOT REUSE THIS CONTAINER FOR ANY PURPOSE. This is a recyclable container and is to be disposed of at a container collection site. Contact your local distributor/dealer or municipality for the location of the nearest collection site. Before taking the container to the collection site:

1. Triple- or pressure-rinse the empty container. Add the rinsings to the spray mixture in the tank.
2. Make the empty container unsuitable for further use.

If there is no container collection site in your area, dispose of the container in accordance with provincial requirements.

For information on disposal of unused, unwanted product, contact the manufacturer or the provincial regulatory agency. Contact the manufacturer and the provincial regulatory agency in case of a spill, and for clean-up of spills.

STORAGE

Do not contaminate water, food or feed by 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 store or transport near feed or food. Not for use or storage in or around the home. Store this product away from food or feed.

{Booklet Label}

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FLUMIOXAZIN 51WDG Herbicide

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PRECAUTIONS

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Follow the personal protective equipment, engineering controls, and restriction requirements for the appropriate mixer/loader and applicator scenarios as described in the table below:

Equipment	Personal Protective Equipment		Maximum amount of product handled per day
	Mixer/Loader/ Clean-up and Repair	Applicator	
Groundboom	Chemical-resistant coveralls over long-sleeved shirt and long pants, chemical-resistant gloves, socks, chemical-resistant footwear, a respirator with a NIOSH-approved organic-vapour-removing cartridge with a prefilter approved for pesticides OR a NIOSH-approved canister approved for pesticides and protective eyewear (goggles or face shield).	Open cab: Coveralls over a long-sleeved shirt and long pants, chemical-resistant gloves, socks and shoes.	65 kg
		Closed Cab: Long-sleeved shirt, long pants, socks and shoes. Gloves are not required.	76 kg
Right-of-Way-sprayer	Long-sleeved shirt, long pants, chemical-resistant gloves, socks, shoes and protective eyewear (goggles or face shield).	Chemical-resistant coveralls over a long-sleeved shirt and long pants, chemical-resistant gloves, socks and chemical-resistant footwear.	7 kg
Mechanically-pressurized handgun	Chemical-resistant coveralls over a long-sleeved shirt, long pants, chemical-resistant gloves, socks, chemical-resistant footwear and a respirator with a NIOSH-approved organic-vapour-removing cartridge with a prefilter approved for pesticides, or a NIOSH-approved canister approved for pesticides. Wear protective eyewear (goggles or face shield) during mixing, loading clean-up and repair		2.5 kg
Backpack	Long-sleeved shirt, long pants, chemical-resistant gloves, socks and shoes. Wear protective eyewear (goggles or face shield) during mixing, loading, clean-up and repair.		Not applicable
Manually-pressurized handwand	Long-sleeved shirt, long pants, chemical-resistant gloves, socks and shoes. Wear protective eyewear (goggles or face shield) during mixing, loading, clean-up and repair.		Not applicable

Do not eat, drink or smoke during work. Wash hands and face thoroughly before eating, drinking, smoking, chewing gum, or using the toilet. Immediately wash off accidental splashes of the concentrate or spray mixture from skin, clothing and out of eyes. Remove clothing immediately if pesticide gets inside. Wash thoroughly and put on clean clothing. After work, change clothing and wash entire body thoroughly. Wash contaminated working clothes separately from other laundry before reuse.

Apply only when the potential for drift beyond the area to be treated is minimal. Take into consideration wind speed, wind direction, temperature inversions, application equipment, and sprayer settings.

In non-crop areas, **DO NOT** enter or allow entry into treated areas until the sprays have dried. For crop uses, **DO NOT** enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 6 days for hand-set irrigation of coniferous trees. For all other postapplication activities, **DO NOT** enter or allow worker entry into treated areas during the REI of 12 hours.

Do not apply to fine-textured soils.

Pregrazing Intervals:
Following treatment with FLUMIOXAZIN 51 WDG, follow these grazing restrictions:
For field corn:

- DO NOT permit livestock to graze fields within 93 days after application.
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- DO NOT harvest as green feed or permit livestock to graze fields within 26 days after application.
- DO NOT cut hay/fodder within 52 days after application.

For all other crops:

- DO NOT graze, cut or feed treated crops to livestock.

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

Do not apply within 100 metres of non-dormant pears.

Do not apply to powdery soils or soils that are susceptible to wind displacement unless irrigation can be applied immediately after application.

If this pest control product is to be used on a commodity that may be exported to the U.S. and you require information on acceptable residue levels in the U.S., contact Valent Canada, Inc.

Read and understand the entire label before opening this product. If you have any questions, call the manufacturer at 1-800-682-5368 or obtain technical advice from the

distributor or your provincial agricultural representative. Application of this specific product must meet and/or conform to the following:

ENVIRONMENTAL PRECAUTIONS

This product is toxic to aquatic organisms and non-target terrestrial plants. Observe spray buffer zones specified under DIRECTIONS FOR USE. Toxic to small wild mammals. Toxic to certain beneficial insects. Minimize spray drift to reduce harmful effects on beneficial insects in habitats next to the application site such as hedgerows and woodland.
To reduce runoff from treated areas into aquatic habitats, avoid application to areas with a moderate to steep slope, compacted soil, or clay. Avoid application when heavy rain is forecast. Contamination of aquatic areas as a result of runoff may be reduced by including a vegetative strip between the treated area and the edge of the water body.

DISPOSAL

DO NOT REUSE THIS CONTAINER FOR ANY PURPOSE. This is a recyclable container and is to be disposed of at a container collection site. Contact your local distributor/dealer or municipality for the location of the nearest collection site. Before taking the container to the collection site:

1. Triple- or pressure-rinse the empty container. Add the rinsings to the spray mixture in the tank.
2. Make the empty container unsuitable for further use.

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For information on disposal of unused, unwanted product, contact the manufacturer or the provincial regulatory agency. Contact the manufacturer and the provincial regulatory agency in case of a spill, and for clean-up of spills.

STORAGE

Do not contaminate water, food or feed by 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 store or transport near feed or food. Not for use or storage in or around the home. To prevent contamination, store this product away from food or feed.

RESISTANCE MANAGEMENT RECOMMENDATIONS

For resistance management **FLUMIOXAZIN 51WDG Herbicide** contains a Group 14 herbicide. Any weed population may contain or develop plants naturally resistant to **FLUMIOXAZIN 51WDG Herbicide** and other Group 14 herbicides. The resistant biotypes may dominate the weed population if these herbicides are used repeatedly in the same field. Other resistance mechanisms that are not linked to site of action, but specific for individual chemicals, such as enhanced metabolism, may also exist. Appropriate resistance-management strategies should be followed.

To delay herbicide resistance:

- Where possible, rotate the use of **FLUMIOXAZIN 51WDG Herbicide** or other Group 14 herbicides with different herbicide groups that control the same weeds in the field.
- Use tank mixtures with herbicides from a different group when such use is permitted.
- Herbicide use should be based on an IPM program that includes scouting, historical information related to herbicide use and crop rotation, and considers tillage (or other mechanical), cultural, biological and other chemical control practices.
- Monitor treated weed populations for resistance development.
- Prevent movement of resistant weed seeds to other fields by cleaning harvesting and tillage equipment and planting clean seed.
- Contact your local extension specialist or certified crop advisor for any additional pesticide resistance-management and/or or integrated weed-management recommendations for specific crops and weed biotypes.
- For further information and to report suspected resistance, contact Valent Canada, Inc. at 1-800-682-5368 or at www.valent.ca.

GENERAL INFORMATION

FLUMIOXAZIN 51WDG Herbicide provides residual control of susceptible weeds in labelled crops, and to maintain bare ground non-crop areas, including bare ground non-crop areas in and around ornamental nurseries and on farms when used in accordance with this label. **FLUMIOXAZIN 51WDG Herbicide** is effective as a preemergence herbicide, for control of selected grass and broadleaf weeds. **FLUMIOXAZIN 51WDG Herbicide** controls weeds by inhibiting protoporphyrinogen oxidase, an essential enzyme required by plants for chlorophyll biosynthesis. Seedling weeds are controlled preemergence when exposed to sunlight following contact with the soil applied herbicide. Preemergence weed control with **FLUMIOXAZIN 51WDG Herbicide** is most effective when applied to clean, weed-free soil surfaces. Disturbing soil surfaces may reduce herbicide efficacy.

FLUMIOXAZIN 51WDG Herbicide offers residual control of susceptible grass and broadleaf weeds listed on this label and assists in the control of acetolactate synthase (ALS) resistant weeds. The length of residual control is dependent on the application rate as well as on rainfall and temperature conditions. Length of residual control will decrease as temperature and precipitation increase and on soils of high organic matter and/or high clay content.

Rotational Restrictions

The following rotational crops may be planted after applying Flumioxazin 51WDG Herbicide at the listed rate. Planting earlier than the recommended rotational interval may result in crop injury.

Flumioxazin 51WDG Herbicide Rate	Crop	Rotational Interval
105-140 g/ha [for harvest aid use on Dried Shelled Pea and Bean (except soybean)]	Winter wheat	7 days
140 g/ha	Soybean, field corn, field pea, chickpea, succulent shelled and edible-podded pea (*Pisum* spp. and pigeon pea)	Immediately
	Spring Wheat	7 days
	Durum Wheat, Sunflowers	30 days
	Winter wheat	4 months
	Lentils [small red and large green varieties]	7 days
	Sorghum, dry common beans[1], and Canola	9 months
	Alfalfa and barley	11 months
	All other crops not listed[2]	12 months
210 g/ha	Soybean, field corn, field pea, chickpea	Immediately
	Spring Wheat	7 days
	Sunflowers	2 months
	Winter wheat	4 months
	Lentils [small red and large green varieties]	6 months
	Sorghum, dry common beans[1]	9 months
	Alfalfa, barley, and canola	11 months
	All other crops not listed[2]	12 months

[1] Common bean varieties vary in their tolerance to herbicides, including to Flumioxazin 51WDG Herbicide. Since not all common bean varieties grown as rotational crops have been tested for tolerance to Flumioxazin 51WDG Herbicide, first seeding common bean varieties to the field previously treated with Flumioxazin 51WDG Herbicide should be limited to a small area to confirm tolerance prior to adoption as a general field practice. Additionally, consult your seed supplier for information on the tolerance of specific varieties of common bean as a rotational crop seeded to field treated with Flumioxazin 51WDG Herbicide.

[2] Successful soil bioassay must be performed prior to planting crops not listed.

TANK MIXING

This product may be tank mixed with a fertilizer, a supplement or with registered pest control products, whose labels also allow tank mixing, provided the entirety of both labels, including Directions For Use, Precautions, Restrictions, Environmental Precautions, and Spray Buffer Zones are followed for each product. In cases where these requirements differ between the tank mix partner labels, the most restrictive label must be followed. Do not tank mix products containing the same active ingredient unless specifically listed on this label.

In some cases, tank mixing pest control products can result in reduced pesticide efficacy or increased host crop injury. The user should contact Valent Canada Inc. at www.valent.ca (519-767-9262) for information before applying any tank mix that is not specifically recommended on this label.

Tank Mixing Restrictions
When tank-mixes are permitted, read and observe all label directions, including rates and restrictions for each product used in the tank-mix. Follow the more stringent label precautionary measures for mixing, loading and applying stated on both product labels. Do not tank mix Flumioxazin 51 WDG Herbicide, or use in the same field, with flufenacet, metolachlor or s-metolachlor, dimethanamid or dimethanamid-p, alachlor, or acetochlor, as crop injury may occur.

GENERAL DIRECTIONS FOR USE

SPRAYER AND APPLICATION INFORMATION

Apply using ground application equipment only. Before applying **FLUMIOXAZIN 51WDG Herbicide**, start with clean, well maintained application equipment. Nozzles should be uniformly spaced on boom and frequently checked for accuracy. For broadcast application, apply **FLUMIOXAZIN 51WDG Herbicide** with ground equipment using standard commercial sprayers equipped with nozzles designed to deliver the desired spray pressure and spray volume. When banding, use proportionately less water and **FLUMIOXAZIN 51WDG Herbicide** per hectare.

Equipment with **FLUMIOXAZIN 51WDG Herbicide** residues remaining in the system may result in crop injury to the subsequently treated crop. Spray equipment used to apply **FLUMIOXAZIN 51WDG Herbicide** should not be used to apply other materials to any plant foliage. Spray equipment must be cleaned each day following **FLUMIOXAZIN 51WDG Herbicide** application. After **FLUMIOXAZIN 51WDG Herbicide** is applied, the following steps must be used to clean the spray equipment:

1. Completely drain the spray tank, rinse the sprayer thoroughly, including the inside and outside of the tank and all in-line screens. Fill the spray tank with clean water and flush all hoses, booms, screens and nozzles.
2. Top off tank, add 4 L of 3% household ammonia for every 400 L of water, circulate through sprayer for 5 minutes, and then flush all hoses, booms, screens and nozzles for a minimum of 15 minutes.
3. Drain tank completely.
4. Add enough clean water to the spray tank to allow all hoses, booms, screens and nozzles to be flushed for 3 minutes.
5. Remove all nozzles and screens and rinse them with clean water.
6. Do not contaminate water, food or feed by cleaning of equipment.

MIXING INSTRUCTIONS

1. Fill clean spray tank 1/2 to 2/3 of desired level with clean water. Engage gentle agitation.
2. While agitating, slowly add **FLUMIOXAZIN 51WDG Herbicide** to the spray tank. Agitation should create a rippling or rolling action on the water surface.

3. If tank mixing **FLUMIOXAZIN 51WDG Herbicide** with other labelled 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 adjuvants or surfactants, if recommended.
5. Fill spray tank to desired level with water. **Agitation should continue until spray solution has been applied.**
6. Mix only the amount of spray solution that can be applied the day of mixing. **FLUMIOXAZIN 51WDG Herbicide** should be applied within 6 hours of mixing.

- As this pesticide is not registered for the control of pests in aquatic systems, **DO NOT** use to control aquatic pests.

- **DO NOT** contaminate irrigation or drinking water supplies or aquatic habitats by cleaning of equipment or disposal of wastes.

Field sprayer application: **DO NOT** apply during periods of dead calm. Avoid application of this product when winds are gusty. **DO NOT** apply with spray droplets smaller than the American Society of Agricultural Engineers (ASAE S572.1) medium classification. Boom height must be 60 cm or less above the crop or ground.

DO NOT apply by air.

Use caution when applying under circumstances where possible drift to unprotected persons or 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 pressure.

Make application when the wind velocity favours on-target product deposition.

Do not make applications during 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 ground application equipment must be properly maintained and calibrated using appropriate carriers.

SPRAY BUFFER ZONES:
A spray buffer zone is NOT required for:
- uses with hand-held application equipment permitted on this label,

- low-clearance hooded or shielded sprayers that prevent spray contact with crop, fruit or foliage

For application to rights-of-way, spray buffer zones for protection of sensitive terrestrial habitats are not required; however, the best available application strategies which minimize off-site drift, including meteorological conditions (e.g., wind direction, low wind speed) and spray equipment (e.g., coarse droplet sizes, minimizing height above canopy), should be used. Applicators must, however, observe the specified spray buffer zones for protection of sensitive terrestrial and aquatic habitats.

The spray buffer zones specified in the table below are required between the point of direct application and the closest downwind edge of sensitive terrestrial habitats (such as grasslands, forested areas, shelter belts, woodlots, hedgerows, riparian areas and shrublands), sensitive freshwater habitats (such as lakes, rivers, sloughs, ponds, prairie potholes, creeks, marshes, streams, reservoirs and wetlands) and estuarine/marine habitats.

Method of application	Crop	Spray Buffer Zones (metres) Required for the Protection of:				
		Freshwater Habitat of Depths:		Estuarine/Marine Habitats of Depths:		Terrestrial habitat
		Less than 1 m	Greater than 1 m	Less than 1 m	Greater than 1 m	
Field sprayer	Potato, sweet potato,	2	1	0	0	5
	Dry bulb onion	2	1	0	0	10
	Soybean, field corn, spring wheat, , Dried Shelled Pea and Bean, succulent shelled and edible-podded pea (*Pisum* spp. and pigeon pea), strawberry, celery, field pepper, broccoli, sunflower	3	1	1	0	10
	Mint	4	2	1	0	15
	Asparagus, in-field ornamental trees	5	2	1	1	20
	Bare ground, non-crop uses including rights-of-way, pome fruit, grapes, blueberries (high and low bush), stone fruit, nut trees, caneberries	5	2	1	1	25*

* Spray buffer zones for the protection of terrestrial habitats are not required for use on rights-of-way including railroad ballast, rail and hydro rights-of-way, and utility easements.

When tank mixes are permitted, consult the labels of the tank-mix partners and observe the largest (most restrictive) spray buffer zone of the products involved in the tank mixture and apply using the coarsest spray (ASAE) category indicated on the labels for those tank mix partners

The spray drift buffer zones for this product can be modified based on weather conditions and spray equipment configuration by accessing the Spray Buffer Zone Calculator on the Pesticides portion of the Canada.ca website.

DIRECTIONS FOR USE IN BARE GROUND NON-CROP AREAS

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

- Bare ground to railroad beds, under guard rails, and above-ground pipelines.
- Bare ground in parking and storage areas, plant sites, substations, pumping stations, oil yards/substations and tank farms.
- Bare ground areas of airports, brick yards, industrial plant sites, lumber yards, and storage areas.
- Bare ground around farm buildings and along fence rows.
- Road surfaces and gravel shoulders.

Moisture is necessary to activate **FLUMIOXAZIN 51WDG Herbicide** in soil for residual weed control. Dry weather following applications of **FLUMIOXAZIN 51WDG Herbicide** may reduce effectiveness. However, when adequate moisture is received after dry conditions, **FLUMIOXAZIN 51WDG Herbicide** will control susceptible germinating weeds. **FLUMIOXAZIN 51WDG Herbicide** may not control weeds that germinate after application but before an activating rainfall/irrigation or weeds that germinate through cracks resulting from dry soil.

When adequate moisture is not received after a **FLUMIOXAZIN 51WDG Herbicide** application, weed control may be improved by irrigation with at least ½ to 1 cm of water. Weed control will be reduced if there is mechanical incorporation into the soil or if emerged weeds are controlled by cultivation.

FLUMIOXAZIN 51WDG Herbicide offers residual control of susceptible broadleaf and grass weeds listed on this label and assists in the control of acetolactate synthase (ALS) resistant weeds. The length of residual control is dependent on application rate as well as on rainfall and temperature conditions. Length of residual control will decrease as temperature and precipitation increase and on soils with high organic matter and/or high clay content.

- Do not apply by air. Ground application only.
- Do not apply to fine-textured soils.
- Do not apply to farm alleys or roads where traffic may result in treated dust settling onto crops or other desirable vegetation.
- Do not apply within 100 metres of non-dormant pears.
- Do not apply to powdery soils or soils that are susceptible to wind displacement unless irrigation can be applied immediately after application.
- Do not make more than two applications per growing season.

BARE GROUND NON-CROP AREAS - Application Rates and Weed Claims

WEEDS CONTROLLED	Soil Type[1]	RATE (g/ha)	COMMENTS
Redroot pigweed (*Amaranthus retroflexus*) Green pigweed (*Amaranthus powellii*) Common ragweed (*Ambrosia artemisiifolia*)	Coarse-textured, with <5% organic matter	280	Preemergence: Apply prior to weed emergence, in sufficient water for uniform coverage. Postemergence: When weeds are already emerged, apply **FLUMIOXAZIN 51WDG Herbicide** as a tank mix[2] with a glyphosate product, present as isopropyl amine or potassium salt, at 1.2 kg a.i./ha
Common lamb's-quarters (*Chenopodium album*) Green foxtail (*Setaria viridis*) Hairy nightshade (*Solanum sarachoides*) Dandelion (*Taraxacum officinale*) Eastern black nightshade (*Solanum ptycanthum*) Kochia (*Kochia scoparia*) including Group 2, 4, and 9 resistant kochia Canada fleabane (*Conyza canadensis)* Common chickweed (*Stellaria media*) Waterhemp, including biotypes resistant to herbicide groups 2, 5 and 9 Palmer amaranth (*Amaranthus palmeri*) Suppression only: Volunteer canola (*Brassica napus*) including glyphosate, glufosinate and imidazolinone tolerant varieties	Medium-textured, with <5% organic matter	420	

[1]: Do not apply on soils with > 5% OM, or fine-textured soils.
[2]: Refer to the respective tank mix partner label for additional recommendations, restrictions and precautions. Follow the most restrictive application directions for each of the tank mix partners.

DIRECTIONS FOR USE IN SOYBEAN

FLUMIOXAZIN 51WDG Herbicide offers residual control of susceptible broadleaf and grass weeds listed on this label and assists in the control of acetolactate synthase (ALS) resistant weeds. The length of residual control is dependent on the application rate as well as on rainfall and temperature conditions. Length of residual control will decrease as temperature and precipitation increase and on soils of high organic matter and/or high clay content.

Crop injury may occur from applications made to poorly drained soil and/or applications made under cool, wet conditions. Severe crop injury will result when soils are flooded following applications of **FLUMIOXAZIN 51WDG Herbicide**. Risk of crop injury can be minimized by using on well drained soils, planting at least 4 cm deep, using high quality seed and completely covering seeds with soil prior to preemergence applications. Treated soil that is splashed or wind-blown onto newly emerged crops may result in temporary crop injury.

Moisture is necessary to activate **FLUMIOXAZIN 51WDG Herbicide** in soil for residual weed control. Dry weather following applications of **FLUMIOXAZIN 51WDG**

Herbicide may reduce effectiveness. However, when adequate moisture is received after dry conditions, **FLUMIOXAZIN 51WDG Herbicide** will control susceptible germinating weeds. **FLUMIOXAZIN 51WDG Herbicide** may not control weeds that germinate after application but before an activating rainfall/irrigation or weeds that germinate through cracks resulting from dry soil.

When adequate moisture is not received after a **FLUMIOXAZIN 51WDG Herbicide** application, weed control may be improved by irrigation with at least ½ to 1 cm of water. Weed control will be reduced if there is mechanical incorporation into the soil or if emerged weeds are controlled by cultivation.

If the crop treated with **FLUMIOXAZIN 51WDG Herbicide** is lost due to a catastrophe, such as hail or other forms of inclement weather, soybeans can be replanted immediately, provided no more than 210 g/ha of **FLUMIOXAZIN 51WDG Herbicide** was used on the lost crop. Crop injury may occur if these restrictions are not followed.

No-till planters that incorporate the soil during planting may result in decreased weed control in the row. When these types of planters are used, apply **FLUMIOXAZIN 51WDG Herbicide** within 3 days of planting and before soybeans emerge.

Do not perform any tillage operations after application or weed control will be reduced.

Apply only once during a single growing season.

APPLICATION TIMING

FLUMIOXAZIN 51WDG Herbicide provides preemergence control of susceptible weeds in soybeans. Apply **FLUMIOXAZIN 51WDG Herbicide** with ground equipment before planting, during planting, or after planting, but before the crop emerges. Do not apply by air. Use ground application equipment only.

Preemergence Applications

FLUMIOXAZIN 51WDG Herbicide may be applied to soybeans prior to planting or within 3 days after planting and prior to soybean emergence. Application after the soybeans have begun to crack, or are emerged, will result in severe crop injury. At an application rate of 210 g/ha of FLUMIOXAZIN 51WDG Herbicide on medium-textured soils, soybean crop injury may be observed following application.

Burndown Applications (Spring and Fall)

FLUMIOXAZIN 51WDG Herbicide, applied as part of a burndown program, may be used for residual weed control where soybeans will be planted directly into a stale seedbed, cover crop, or in previous crop residues. For control of emerged weeds, tank mix with glyphosate, present as isopropyl amine or potassium salt. Reduced weed control may occur when burndown applications are made to fields where heavy crop and/or weed residue exist.

SOYBEAN– Application Rates and Weed Claims			
WEEDS CONTROLLED	**Soil Type[1]**	**RATE (g/ha)**	**COMMENTS**

Redroot pigweed (*Amaranthus retroflexus*) Green pigweed (*Amaranthus powellii*) Common ragweed (*Ambrosia artemisiifolia*) Common lamb's-quarters (*Chenopodium album*) Hairy nightshade (*Solanum sarachoides*) Dandelion (*Taraxacum officinale*) Eastern black nightshade (*Solanum ptycanthum*) Kochia (*Kochia scoparia*) including Group 2, 4, and 9 resistant kochia Canada fleabane (*Conyza canadensis)* Common chickweed (*Stellaria media*) Waterhemp, including biotypes resistant to herbicide groups 2, 5 and 9 Palmer amaranth (*Amaranthus palmeri*) *Suppression only:* Green foxtail (*Setaria viridis*) Volunteer canola (*Brassica napus*) including glyphosate, glufosinate and imidazolinone tolerant varieties	Coarse-textured, with <5% organic matter	140	Preemergence: Apply prior to weed emergence. Postemergence: When weeds are already emerged, apply **FLUMIOXAZIN 51WDG Herbicide** as a tank mix[2] with a glyphosate product, present as isopropyl amine or potassium salt, at 1.2 kg a.i./ha.
	Medium-textured, with <5% organic matter	210	

[1]: Do not apply on soils with > 5% OM, or fine-textured soils.
[2]: Refer to the respective tank mix partner label for additional recommendations, restrictions and precautions. Follow the most restrictive application directions for each of the tank mix partners.

DIRECTIONS FOR USE IN FIELD CORN (minimum and no-till)

FLUMIOXAZIN 51WDG Herbicide offers residual control of susceptible broadleaf and grass weeds listed on this label and assists in the control of acetolactate synthase (ALS) resistant weeds. The length of residual control is dependent on the application rate as well as on rainfall and temperature conditions. Length of residual control will decrease as temperature and precipitation increase and on soils of high organic matter and/or high clay content.

Use only on no-till or minimum tillage fields where last year's crop residue has not been incorporated into the soil. Crop injury may occur from applications made to poorly drained soil and/or applications made under cool, wet conditions. Severe crop injury will result when soils are flooded following applications of **FLUMIOXAZIN 51WDG Herbicide**.

Moisture is necessary to activate **FLUMIOXAZIN 51WDG Herbicide** in soil for residual weed control. Dry weather following applications of **FLUMIOXAZIN 51WDG Herbicide** may reduce effectiveness. However, when adequate moisture is received after dry conditions, **FLUMIOXAZIN 51WDG Herbicide** will control susceptible germinating weeds. **FLUMIOXAZIN 51WDG Herbicide** may not control weeds that germinate after application but before an activating rainfall/irrigation or weeds that germinate through cracks resulting from dry soil.

When adequate moisture is not received after a **FLUMIOXAZIN 51WDG Herbicide** application, weed control may be improved by irrigation with at least ½ to 1 cm of water. Do not irrigate when corn is emerging to 2-leaf.

Weed control will be reduced if there is mechanical incorporation into the soil or if emerged weeds are controlled by cultivation. Do not perform any tillage operations after application or weed control will be reduced. No-till planters that incorporate the soil during planting may result in decreased weed control in the row.

Apply only once during a single growing season.

APPLICATION TIMING
Preemergence Applications
FLUMIOXAZIN 51WDG Herbicide provides preemergence control of susceptible weeds in field corn. Apply **FLUMIOXAZIN 51WDG Herbicide** with ground equipment between 7 and 30 days prior to planting field corn into no-till or minimum tillage fields.

Burndown Applications (Spring and Fall)
FLUMIOXAZIN 51WDG Herbicide, applied as part of a burndown program, may be used for residual weed control where field corn will be planted directly into previous crop residues. For control of emerged weeds, tank mix with glyphosate, present as isopropyl amine or potassium salt. Reduced weed control may occur when burndown applications are made to fields where heavy crop and/or weed residue exist.

Do not apply by air. Use ground application equipment only.

<table>
<tr><th colspan="4">FIELD CORN – Application Rates and Weed Claims</th></tr>
<tr><th>WEEDS CONTROLLED</th><th>Soil Type[1]</th><th>RATE (g/ha)</th><th>COMMENTS</th></tr>
<tr><td rowspan="2">Redroot pigweed (Amaranthus retroflexus)
Green pigweed (Amaranthus powellii)
Common ragweed (Ambrosia artemisiifolia)
Common lamb’s-quarters (Chenopodium album)
Hairy nightshade (Solanum sarachoides)
Dandelion (Taraxacum officinale)
Eastern black nightshade (Solanum ptycanthum)
Kochia (Kochia scoparia) including Group 2, 4, and 9 resistant kochia
Canada fleabane (Conyza canadensis)
Common chickweed (Stellaria media)
Waterhemp, including biotypes resistant to herbicide groups 2, 5 and 9
Palmer amaranth (Amaranthus palmeri)

Suppression only:
Green foxtail (Setaria viridis)
Volunteer canola (Brassica napus) including glyphosate, glufosinate and imidazolinone tolerant varieties</td><td>Coarse-textured, with <5% organic matter</td><td>140</td><td rowspan="2">Preemergence: Apply prior to weed emergence between 7 and 30 days prior to planting field corn into no-till or minimum tillage fields.

Postemergence: When weeds are already emerged, apply FLUMIOXAZIN 51WDG Herbicide as a tank mix[2] with a glyphosate product, present as isopropyl amine or potassium salt, at 1.2 kg a.i./ha.</td></tr>
<tr><td>Medium-textured, with <5% organic matter</td><td>210</td></tr>
</table>

[1]: Do not apply on soils with > 5% OM, or fine-textured soils.
[2]: Refer to the respective tank mix partner label for additional recommendations, restrictions and precautions. Follow the most restrictive application directions for each of the tank mix partners.

DIRECTIONS FOR USE IN SPRING WHEAT (minimum and no-till)

FLUMIOXAZIN 51WDG Herbicide offers residual control of susceptible broadleaf and grass weeds listed on this label and assists in the control of acetolactate synthase (ALS) resistant weeds. The length of residual control is dependent on the application rate as well as on rainfall and temperature conditions. Length of residual control will decrease as temperature and precipitation increase and on soils of high organic matter and/or high clay content.

Use only on no-till or minimum tillage fields where last year's crop residue has not been incorporated into the soil. Crop injury may occur from applications made to poorly drained soil and/or applications made under cool, wet conditions. Severe crop injury will result when soils are flooded following applications of **FLUMIOXAZIN 51WDG Herbicide**.

Moisture is necessary to activate **FLUMIOXAZIN 51WDG Herbicide** in soil for residual weed control. Dry weather following applications of **FLUMIOXAZIN 51WDG Herbicide** may reduce effectiveness. However, when adequate moisture is received after dry conditions, **FLUMIOXAZIN 51WDG Herbicide** will control susceptible germinating weeds. **FLUMIOXAZIN 51WDG Herbicide** may not control weeds that germinate after application but before an activating rainfall/irrigation or weeds that germinate through cracks resulting from dry soil.

When adequate moisture is not received after a **FLUMIOXAZIN 51WDG Herbicide** application, weed control may be improved by irrigation with at least ½ to 1 cm of water. Do not irrigate spring wheat between emergence and spike.

Weed control will be reduced if there is mechanical incorporation into the soil or if emerged weeds are controlled by cultivation. Do not perform any tillage operations after application or weed control will be reduced. No-till planters that incorporate the soil during planting may result in decreased weed control in the row.

Apply only once during a single growing season.

APPLICATION TIMING

Preemergence Applications (Spring)

FLUMIOXAZIN 51WDG Herbicide provides preemergence control of susceptible weeds in spring wheat. Apply **FLUMIOXAZIN 51WDG Herbicide** with ground equipment at minimum 7 days prior to planting spring wheat into no-till or minimum tillage fields. Wheat must be planted a minimum of 2.5 cm (1 inch) deep to ensure crop safety. Do not plant Durum wheat within 30 days of an application of FLUMIOXAZIN 51 WDG Herbicide.

Burndown Applications (Spring and Fall)

FLUMIOXAZIN 51WDG Herbicide, applied as part of a burndown program, may be used for residual weed control where spring wheat will be planted directly into previous crop residues. For control of emerged weeds, tank mix with glyphosate, present as

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

For fall burndown: Application should be made in the fall, just before freeze-up and when winter annuals and perennial weeds are still growing to allow for optimum herbicide absorption and activity. Applications made after a killing frost will result in reduced perennial and winter annual weed control. Do not apply to snow covered or frozen soil. Abnormally warm winters may reduce the length of weed control observed in the spring.

Do not apply by air. Use ground application equipment only.

<table>
<tr><th colspan="4">SPRING WHEAT – Application Rates and Weed Claims for FALL APPLICATION</th></tr>
<tr><th>WEEDS CONTROLLED</th><th>Soil Type[1]</th><th>RATE (g/ha)</th><th>COMMENTS</th></tr>
<tr><td rowspan="2">Redroot pigweed (Amaranthus retroflexus)
Green pigweed (Amaranthus powellii)
Common ragweed (Ambrosia artemisiifolia)
Common lamb’s-quarters (Chenopodium album)
Hairy nightshade (Solanum sarachoides)
Dandelion (Taraxacum officinale)
Eastern black nightshade (Solanum ptycanthum)
Kochia (Kochia scoparia) including Group 2, 4, and 9 resistant kochia
Canada fleabane (Conyza canadensis)
Common chickweed (Stellaria media)
Waterhemp, including biotypes resistant to herbicide groups 2, 5 and 9
Palmer amaranth (Amaranthus palmeri)

Suppression only:
Green foxtail (Setaria viridis)
Volunteer canola (Brassica napus) including glyphosate, glufosinate and imidazolinone tolerant varieties</td><td>Coarse-textured, with <5% organic matter</td><td>140</td><td rowspan="2">Preemergence: Apply prior to weed emergence in the fall. The following spring, plant spring wheat into no-till or minimum tillage fields.

Postemergence: When weeds are already emerged, apply FLUMIOXAZIN 51WDG Herbicide as a tank mix[2] with a glyphosate product, present as isopropyl amine or potassium salt, at 1.2 kg a.i./ha.</td></tr>
<tr><td>Medium-textured, with <5% organic matter</td><td>210</td></tr>
</table>

[1]: Do not apply on soils with > 5% OM, or fine-textured soils.
[2]: Refer to the respective tank mix partner label for additional recommendations, restrictions and precautions. Follow the most restrictive application directions for each of the tank mix partners.

SPRING WHEAT – Application Rates and Weed Claims for SPRING APPLICATION			
WEEDS CONTROLLED	**Soil Type[1]**	**RATE[2] (g/ha)**	**COMMENTS**

Redroot pigweed (*Amaranthus retroflexus*) Green pigweed (*Amaranthus powellii*) Common ragweed (*Ambrosia artemisiifolia*) Common lamb's-quarters (*Chenopodium album*) Hairy nightshade (*Solanum sarachoides*) Dandelion (*Taraxacum officinale*) Eastern black nightshade (*Solanum ptycanthum*) Kochia (*Kochia scoparia*) including Group 2, 4, and 9 resistant kochia Canada fleabane (*Conyza canadensis)* Common chickweed (*Stellaria media*) Waterhemp, including biotypes resistant to herbicide groups 2, 5 and 9 Palmer amaranth (*Amaranthus palmeri*) *Suppression only:* Green foxtail (*Setaria viridis*) Volunteer canola (*Brassica napus*) including glyphosate, glufosinate and imidazolinone tolerant varieties	Coarse-textured and medium-textured soil, with <5% organic matter	140	Preemergence: Apply prior to weed emergence, and at minimum 7 days prior to planting spring wheat into no-till or minimum tillage fields. Postemergence: When weeds are already emerged, apply **FLUMIOXAZIN 51WDG Herbicide** as a tank mix[3] with a glyphosate product, present as isopropyl amine or potassium salt, at 1.2 kg a.i./ha.

[1]: Do not apply on soils with > 5% OM, or fine-textured soils.
[2].The duration of residual control may be reduced with 140 g/ha in medium textured soils <5% in OM.
[3]: Refer to the respective tank mix partner label for additional recommendations, restrictions and precautions. Follow the most restrictive application directions for each of the tank mix partners.

DIRECTIONS FOR USE IN FIELD PEA

FLUMIOXAZIN 51WDG Herbicide offers residual control of susceptible broadleaf and grass weeds listed on this label and assists in the control of acetolactate synthase (ALS) resistant weeds. The length of residual control is dependent on the application rate as well as on rainfall and temperature conditions. Length of residual control will decrease as temperature and precipitation increase and on soils of high organic matter and/or high clay content.

Moisture is necessary to activate **FLUMIOXAZIN 51WDG Herbicide** in soil for residual weed control. Dry weather following applications of **FLUMIOXAZIN 51WDG Herbicide** may reduce effectiveness. However, when adequate moisture is received after dry conditions, **FLUMIOXAZIN 51WDG Herbicide** will control susceptible germinating weeds. **FLUMIOXAZIN 51WDG Herbicide** may not control weeds that germinate after application but before an activating rainfall/irrigation or plants that germinate through cracks resulting from dry soil.

When adequate moisture is not received after a **FLUMIOXAZIN 51WDG Herbicide** application, weed control may be improved by irrigation with at least ½ to 1 cm of water. Control will be reduced if there is mechanical incorporation into the soil or if emerged weeds are controlled by cultivation.

Do not perform any tillage operations after application or weed control will be reduced.

Apply only once during a single growing season.

Do not apply by air. Apply using ground application equipment only.

APPLICATION TIMING

Preemergence Applications (spring)

FLUMIOXAZIN 51WDG Herbicide provides preemergence control of susceptible weeds in field pea. Apply **FLUMIOXAZIN 51WDG Herbicide** with ground equipment prior to planting or within 3 days after planting and prior to emergence. Application after the field peas have begun to crack, or are emerged, will result in severe crop injury.

Burndown Applications (Spring and Fall)

FLUMIOXAZIN 51WDG Herbicide, applied as part of a burndown program, may be used for residual weed control where field pea will be planted directly into previous crop residues. For control of emerged weeds, tank mix with glyphosate, present as isopropyl amine or potassium salt. Reduced weed control may occur when burndown applications are made to fields where heavy crop and/or weed residue exist.

For fall burndown: Application should be made in the fall, just before freeze-up and when winter annuals and perennial weeds are still growing to allow for optimum herbicide absorption and activity. Applications made after a killing frost will result in reduced perennial and winter annual weed control. Do not apply to snow covered or frozen soil. Abnormally warm winters may reduce the length of weed control observed in the spring.

<table>
<tr><th colspan="4">FIELD PEA – Application Rates and Weed Claims for FALL APPLICATION</th></tr>
<tr><th>WEEDS CONTROLLED</th><th>Soil Type[1]</th><th>RATE (g/ha)</th><th>COMMENTS</th></tr>
<tr><td rowspan="2">Redroot pigweed (Amaranthus retroflexus)
Green pigweed (Amaranthus powellii)
Common ragweed (Ambrosia artemisiifolia)
Common lamb’s-quarters (Chenopodium album)
Hairy nightshade (Solanum sarachoides)
Dandelion (Taraxacum officinale)
Eastern black nightshade (Solanum ptycanthum)
Kochia (Kochia scoparia) including Group 2, 4, and 9 resistant kochia
Canada fleabane (Conyza canadensis)
Common chickweed (Stellaria media)
Waterhemp, including biotypes resistant to herbicide groups 2, 5 and 9
Palmer amaranth (Amaranthus palmeri)

Suppression only:
Green foxtail (Setaria viridis)
Volunteer canola (Brassica napus) including glyphosate, glufosinate and imidazolinone tolerant varieties</td><td>Coarse-textured, with <5% organic matter</td><td>140</td><td rowspan="2">Preemergence: Apply prior to weed emergence.

Postemergence: When weeds are already emerged, apply FLUMIOXAZIN 51WDG Herbicide as a tank mix[2] with a glyphosate product, present as potassium salt, at 900 g a.i./ha</td></tr>
<tr><td>Medium-textured, with <5% organic matter</td><td>210</td></tr>
</table>

[1]: Do not apply on soils with > 5% OM, or fine-textured soils.

[2]: Refer to the respective tank mix partner label for additional recommendations, restrictions and precautions. Follow the most restrictive application directions for each of the tank mix partners.

FIELD PEA – Application Rates and Weed Claims for SPRING APPLICATION			
WEEDS CONTROLLED	**Soil Type[1]**	**RATE[2] (g/ha)**	**COMMENTS**
Redroot pigweed (*Amaranthus retroflexus*) Green pigweed (*Amaranthus powellii*) Common ragweed (*Ambrosia artemisiifolia*) Common lamb's-quarters (*Chenopodium album*) Hairy nightshade (*Solanum sarachoides*) Dandelion (*Taraxacum officinale*) Eastern black nightshade (*Solanum ptycanthum*) Kochia (*Kochia scoparia*) including Group 2, 4, and 9 resistant kochia Canada fleabane (*Conyza canadensis)* Common chickweed (*Stellaria media)* Waterhemp, including biotypes resistant to herbicide groups 2, 5 and 9 Palmer amaranth (*Amaranthus palmeri*) *Suppression only:* Green foxtail (*Setaria viridis*) Volunteer canola (*Brassica napus*) including glyphosate, glufosinate and imidazolinone tolerant varieties	Coarse-textured and Medium-textured, with <5% organic matter	140	Preemergence: Apply prior to weed emergence. Postemergence: When weeds are already emerged, apply **FLUMIOXAZIN 51WDG Herbicide** as a tank mix[3] with a glyphosate product, present as potassium salt, at 900 g a.i./ha.

[1]: Do not apply on soils with > 5% OM, or fine-textured soils.
[2].The duration of residual control may be reduced with 140 g/ha in medium textured soils <5% in OM.
[3]: Refer to the respective tank mix partner label for additional recommendations, restrictions and precautions. Follow the most restrictive application directions for each of the tank mix partners.

DIRECTIONS FOR USE IN CHICKPEA

FLUMIOXAZIN 51WDG Herbicide offers residual control of susceptible broadleaf and grass weeds listed on this label and assists in the control of acetolactate synthase (ALS) resistant weeds. The length of residual control is dependent on the application rate as well as on rainfall and temperature conditions. Length of residual control will decrease as temperature and precipitation increase and on soils of high organic matter and/or high clay content.

Moisture is necessary to activate **FLUMIOXAZIN 51WDG Herbicide** in soil for residual weed control. Dry weather following applications of **FLUMIOXAZIN 51WDG Herbicide** may reduce effectiveness. However, when adequate moisture is received after dry conditions, **FLUMIOXAZIN 51WDG Herbicide** will control susceptible germinating weeds. **FLUMIOXAZIN 51WDG Herbicide** may not control weeds that germinate after application but before an activating rainfall/irrigation or plants that germinate through cracks resulting from dry soil.

When adequate moisture is not received after a **FLUMIOXAZIN 51WDG Herbicide** application, weed control may be improved by irrigation with at least ½ to 1 cm of water. Control will be reduced if there is mechanical incorporation into the soil or if emerged weeds are controlled by cultivation.

Do not perform any tillage operations after application or weed control will be reduced.

Apply only once during a single growing season.

Do not apply by air. Apply using ground application equipment only.

APPLICATION TIMING

Preemergence Applications (Spring)

FLUMIOXAZIN 51WDG Herbicide provides preemergence control of susceptible weeds in chickpea. Apply **FLUMIOXAZIN 51WDG Herbicide** with ground equipment prior to planting or within 3 days after planting and prior to emergence. Application after the chickpeas have begun to crack, or are emerged, will result in severe crop injury.

Burndown Applications (Spring and Fall)

FLUMIOXAZIN 51WDG Herbicide, applied as part of a burndown program, may be used for residual weed control where chickpeas will be planted directly into previous crop residues. For control of emerged weeds, tank mix with glyphosate, present as isopropyl amine or potassium salt. Reduced weed control may occur when burndown applications are made to fields where heavy crop and/or weed residue exist.

For fall burndown: Application should be made in the fall, just before freeze-up and when winter annuals and perennial weeds are still growing to allow for optimum herbicide absorption and activity. Applications made after a killing frost will result in reduced perennial and winter annual weed control. Do not apply to snow covered or frozen soil. Abnormally warm winters may reduce the length of weed control observed in the spring.

<table>
<tr><th colspan="4">CHICKPEA – Application Rates and Weed Claims for FALL APPLICATION</th></tr>
<tr><th>WEEDS CONTROLLED</th><th>Soil Type[1]</th><th>RATE (g/ha)</th><th>COMMENTS</th></tr>
<tr><td rowspan="2">Redroot pigweed (Amaranthus retroflexus)
Green pigweed (Amaranthus powellii)
Common ragweed (Ambrosia artemisiifolia)
Common lamb’s-quarters (Chenopodium album)
Hairy nightshade (Solanum sarachoides)
Dandelion (Taraxacum officinale)
Eastern black nightshade (Solanum ptycanthum)
Kochia (Kochia scoparia) including Group 2, 4, and 9 resistant kochia
Canada fleabane (Conyza canadensis)
Common chickweed (Stellaria media)
Waterhemp, including biotypes resistant to herbicide groups 2, 5 and 9
Palmer amaranth (Amaranthus palmeri)</td><td>Coarse- textured, with <5% organic matter</td><td>140</td><td rowspan="2">Preemergence: Apply prior to weed emergence.

Postemergence: When weeds are already emerged, apply FLUMIOXAZIN 51WDG Herbicide as a tank mix[2] with a glyphosate product, present as isopropyl amine or potassium salt, at 1.2 kg a.i./ha.</td></tr>
<tr><td>Medium-textured, with <5% organic matter</td><td>210</td></tr>
</table>

Suppression only: Green foxtail (*Setaria viridis*) Volunteer canola (*Brassica napus*) including glyphosate, glufosinate and imidazolinone tolerant varieties			

[1]: Do not apply on soils with > 5% OM, or fine-textured soils.
[2]: Refer to the respective tank mix partner label for additional recommendations, restrictions and precautions. Follow the most restrictive application directions for each of the tank mix partners.

CHICKPEA – Application Rates and Weed Claims for SPRING APPLICATION			
WEEDS CONTROLLED	**Soil Type[1]**	**RATE[2] (g/ha)**	**COMMENTS**
Redroot pigweed (*Amaranthus retroflexus*) Green pigweed (*Amaranthus powellii*) Common ragweed (*Ambrosia artemisiifolia*) Common lamb's-quarters (*Chenopodium album*) Hairy nightshade (*Solanum sarachoides*) Dandelion (*Taraxacum officinale*) Eastern black nightshade (*Solanum ptycanthum*) Kochia (*Kochia scoparia*) including Group 2, 4, and 9 resistant kochia Canada fleabane (*Conyza canadensis)* Common chickweed (*Stellaria media*) Waterhemp, including biotypes resistant to herbicide groups 2, 5 and 9 Palmer amaranth (*Amaranthus palmeri*) *Suppression only:* Green foxtail (*Setaria viridis*) Volunteer canola (*Brassica napus*) including glyphosate, glufosinate and imidazolinone tolerant varieties	Coarse- textured and medium-textured, with <5% organic matter	140	Preemergence: Apply prior to weed emergence. Postemergence: When weeds are already emerged, apply **FLUMIOXAZIN 51WDG Herbicide** as a tank mix[3] with a glyphosate product, present as isopropyl amine or potassium salt, at 1.2 kg a.i./ha.

[1]: Do not apply on soils with > 5% OM, or fine-textured soils.
[2].The duration of residual control may be reduced with 140 g/ha in medium textured soils <5% in OM.
[3]: Refer to the respective tank mix partner label for additional recommendations, restrictions and precautions. Follow the most restrictive application directions for each of the tank mix partners.

DIRECTIONS FOR USE IN LENTIL [Small Red and Large Green Varieties]

FLUMIOXAZIN 51WDG Herbicide offers residual control of susceptible broadleaf and grass weeds listed on this label and assists in the control of acetolactate synthase (ALS) resistant weeds. The length of residual control is dependent on the application rate as well as on rainfall and temperature conditions. Length of residual control will decrease as temperature and precipitation increase and on soils of high organic matter and/or high clay content.

Moisture is necessary to activate **FLUMIOXAZIN 51WDG Herbicide** in soil for residual weed control. Dry weather following applications of **FLUMIOXAZIN 51WDG Herbicide** may reduce effectiveness. However, when adequate moisture is received after dry conditions, **FLUMIOXAZIN 51WDG Herbicide** will control susceptible germinating weeds. **FLUMIOXAZIN 51WDG Herbicide** may not control weeds that germinate after application but before an activating rainfall/irrigation or plants that germinate through cracks resulting from dry soil.

When adequate moisture is not received after a **FLUMIOXAZIN 51WDG Herbicide** application, weed control may be improved by irrigation with at least ½ to 1 cm of water. Control will be reduced if there is mechanical incorporation into the soil or if emerged weeds are controlled by cultivation.

Do not perform any tillage operations after application or weed control will be reduced.

Apply only once during a single growing season.

Do not apply by air. Apply using ground application equipment only.

APPLICATION TIMING

Preemergence Applications (Spring)
FLUMIOXAZIN 51WDG Herbicide preemergent application provides control of susceptible weeds in small red and large green varieties of lentils. Apply **FLUMIOXAZIN 51WDG Herbicide** with ground equipment as early in the season as possible, a minimum of 7 days prior to planting small red or large green lentil varieties into no-till or minimum tillage fields. Lentils must be planted a minimum of 2.5 cm (1 inch) deep to maximize crop safety. Receiving an activating rainfall or irrigating with at least 1 cm of water prior to seeding will help minimize the potential for crop injury.

Do not apply other residual herbicides with, before, or after applying **FLUMIOXAZIN 51WDG Herbicide** in the spring prior to seeding lentils, as crop injury may result. Areas of fields with combinations of low organic matter, high pH, and or high sand content may exhibit crop injury symptoms. The use of optimal agronomics to support plant establishment will reduce crop injury potential - high quality seed, seed treatment, and using optimal seeding rates will minimize crop injury potential.

Fall Burndown Applications (With Glyphosate)
FLUMIOXAZIN 51WDG Herbicide, applied as part of a burndown program, may be used for residual weed control where lentils will be planted directly into previous crop residues. For control of emerged weeds, tank mix with glyphosate, present as isopropyl amine or potassium salt. Reduced weed control may occur when burndown applications are made to fields where heavy crop and/or weed residue exist.

Application should be made in the fall, just before freeze-up and when winter annuals and perennial weeds are still growing to allow for optimum herbicide absorption and activity. Applications made after a killing frost will result in reduced perennial and winter annual weed control. Do not apply to snow covered or frozen soil. Abnormally warm winters may reduce the length of weed control observed in the spring.

CROP TOLERANCE

Lentil varieties vary in their tolerance to FLUMIOXAZIN 51WDG Herbicide. Testing has shown that small-seeded red and large-seeded green varieties are most tolerant to applications of FLUMIOXAZIN 51WDG Herbicide. Other seed classes of lentils should not be planted into areas treated with FLUMIOXAZIN 51WDG Herbicide.

Environmental conditions, such as cold, saturated soils, and abnormally cool wet weather after seeding may also increase lentil injury following a spring or fall application of FLUMIOXAZIN 51 WDG Herbicide. Crop injury symptoms are generally transient and will reduce as growing conditions return to normal. FLUMIOXAZIN 51 WDG Herbicide is a very active herbicide and the user should exercise caution until gaining familiarity with this product.

LENTIL [Small Red and Large Green Varieties] – Application Rates and Weed Claims for FALL APPLICATION			
WEEDS CONTROLLED	**Soil Type[1]**	**RATE (g/ha)**	**COMMENTS**
Redroot pigweed (*Amaranthus retroflexus*) Green pigweed (*Amaranthus powellii*) Common ragweed (*Ambrosia artemisiifolia*) Common lamb's-quarters (*Chenopodium album*) Hairy nightshade (*Solanum sarachoides*) Dandelion (*Taraxacum officinale*) Eastern black nightshade (*Solanum ptycanthum*) Kochia (*Kochia scoparia*) including Group 2, 4, and 9 resistant kochia Canada fleabane (*Conyza canadensis)* Common chickweed (*Stellaria media*) Waterhemp, including biotypes resistant to herbicide groups 2, 5 and 9 Palmer amaranth (*Amaranthus palmeri*) *Suppression only:* Green foxtail (*Setaria viridis*) Volunteer canola (*Brassica napus*) including glyphosate, glufosinate and imidazolinone tolerant varieties	Coarse- textured, with <5% organic matter	140	Preemergence: Apply prior to weed emergence. Postemergence: When weeds are already emerged, apply **FLUMIOXAZIN 51WDG Herbicide** as a tank mix[2] a glyphosate product, present as isopropyl amine or potassium salt, at 1.2 kg a.i./ha.
	Medium-textured, with <5% organic matter	210	

[1]: Do not apply on soils with > 5% OM, or fine-textured soils.
[2]: Refer to the respective tank mix partner label for additional recommendations, restrictions and precautions. Follow the most restrictive application directions for each of the tank mix partners.

LENTIL [Small Red and Large Green Varieties] – Application Rates and Weed Claims for SPRING APPLICATION			
WEEDS CONTROLLED	**Soil Type[1]**	**RATE (g/ha)**	**COMMENTS**

Redroot pigweed (*Amaranthus retroflexus*) Green pigweed (*Amaranthus powellii*) Common ragweed (*Ambrosia artemisiifolia*) Common lamb's-quarters (*Chenopodium album*) Hairy nightshade (*Solanum sarachoides*) Dandelion (*Taraxacum officinale*) Eastern black nightshade (*Solanum ptycanthum*) Kochia (*Kochia scoparia*) including Group 2, 4, and 9 resistant kochia Canada fleabane (*Conyza canadensis)* Common chickweed (*Stellaria media*) Waterhemp, including biotypes resistant to herbicide groups 2, 5 and 9 Palmer amaranth (*Amaranthus palmeri*) *Suppression only:* Green foxtail (*Setaria viridis*) Volunteer canola (*Brassica napus*) including glyphosate, glufosinate and imidazolinone tolerant varieties	Coarse- textured and medium-textured with <5% organic matter	140	Preemergence: Apply prior to weed emergence, and at minimum 7 days prior to planting lentils into no-till or minimum tillage fields. Postemergence: When weeds are already emerged, apply **FLUMIOXAZIN 51WDG Herbicide** as a tank mix[2] a glyphosate product, present as isopropyl amine or potassium salt, at 1.2 kg a.i./ha.

[1]: Do not apply on soils with > 5% OM, or fine-textured soils.
[2]: Refer to the respective tank mix partner label for additional recommendations, restrictions and precautions. Follow the most restrictive application directions for each of the tank mix partners.

DIRECTIONS FOR USE AS A HARVEST AID IN CROP SUBGROUP 6C: Dried Shelled Pea and Bean (except soybean)

General Restriction and Limitations

- For use as a desiccant, do not apply more than 105-140 g/ha of **FLUMIOXAZIN 51WDG Herbicide**.
- Do not apply more than a single application of 140 g/ha of **FLUMIOXAZIN 51WDG Herbicide** during a growing season.
- Do not harvest within 5 days of application.
- Do not plant canola a minimum of 9 months after using this product as harvest aid. Refer to previous Rotational Restrictions table for specific instructions.

Application Rate and Timing – FLUMIOXAZIN 51WDG Herbicide + Adjuvant
Apply **FLUMIOXAZIN 51WDG Herbicide** at a rate of 105-140 g/ha plus methylated seed oil (MSO Concentrate) at a rate of 2.5 L/ha when crop is physiologically mature and a minimum of 80% of the pods are yellow to tan in colour and 20% are yellow in colour. If crop is treated too early, a reduction in seed quality may occur. Do not spray FLUMIOXAZIN 51WDG Herbicide on any area of the field with a significant amount of plants with green colour. May also be applied with Nufarm Enhance non-ionic spray adjuvant at 1.25 - 2.5L/1000L; use the higher rate with denser crop canopies and/or with higher weed pressures. A spray grade nitrogen source (either ammonium sulphate at 2.24-2.8 kg/ha or a 28-32% nitrogen solution at 1-2 L/ha) may be added to the spray mixture

along with adjuvant to enhance desiccation. The addition of a nitrogen source does not replace the need for an adjuvant. Crop can be harvested 5 days after application.

Application Rate and Timing – FLUMIOXAZIN 51WDG Herbicide + Glyphosate
FLUMIOXAZIN 51WDG Herbicide plus adjuvant treatment does not desiccate large weeds present in the field; tank mixing **FLUMIOXAZIN 51WDG Herbicide** 105-140 g/ha and an adjuvant with glyphosate present as isopropyl amine or potassium salt at 900 g a.i./ha increases control of emerged weeds and aids in harvest. Refer to glyphosate tankmix partner label for applicable pre-harvest intervals. DO NOT apply glyphosate to crops if grown for seed production.

To ensure thorough coverage, use 140-280 L spray solution per hectare. Nozzle selection should meet manufacturer's recommendation for post-emergence application.

CROP SUBGROUP 6C: Dried Shelled Pea and Bean (including Bean (*Lupinus* spp.), Bean (*Phaseolus* spp.), Bean (*Vigna* spp.), Broad bean [fava bean], Chickpea, Guar, Lablab bean, Lentil, Pea (*Pisum* spp.), Pigeon pea– Application Rates	
TREATMENT + RATE	**COMMENTS**
FLUMIOXAZIN 51WDG Herbicide at 105-140 g/ha + Adjuvant (Nufarm Enhance non-ionic spray adjuvant, or other non-ionic surfactants, at 1.25 - 2.5L/1000L OR Methylated seed oil (MSO Concentrate) at a rate of 2.5 L/ha	Do not harvest within 5 days of application. Do not subsequently seed canola to treatment area for a minimum of 9 months (see Rotational Restrictions table). Will not desiccate large weeds present in the field
FLUMIOXAZIN 51WDG Herbicide 105-140 g/ha + Adjuvant (see above) + Glyphosate, present as isopropyl amine or potassium salt at 900 g a.i./ha	Refer to glyphosate tankmix partner label for applicable pre-harvest intervals. Do not subsequently seed canola to treatment area for a minimum of 9 months (See Rotational Restrictions table). Increases control of emerged weeds, depending on type and canopy size, and aids in harvest. DO NOT apply glyphosate to crops if grown for seed production.

DIRECTIONS FOR USE AS A HARVEST AID IN WHEAT

General Restriction and Limitations

- For use as a desiccant, do not apply more than 105-140 g/ha of **FLUMIOXAZIN 51WDG Herbicide**.
- Do not harvest within 10 days of application.
- Do not apply more than a single application of 140 g/ha of **FLUMIOXAZIN 51WDG Herbicide** during a growing season.
- Do not plant canola a minimum of 9 months after using this product as harvest aid. Refer to previous Rotational Restrictions table for specific instructions.

Application Rate and Timing – FLUMIOXAZIN 51WDG Herbicide + Adjuvant
Apply **FLUMIOXAZIN 51WDG Herbicide** at a rate of 140 g/ha plus Nufarm Enhance non-ionic spray adjuvant, or other non-ionic spray adjuvants, at 1.25 - 2.5L/1000L, after the crop reaches the hard dough stage and grain has no more than 30% moisture; use the higher rate with denser crop canopies and/or with higher weed pressures. May also be applied with methylated seed oil (MSO Concentrate) at a rate of 2.5 L/ha. A spray grade nitrogen source (either ammonium sulphate at 2.24-2.8 kg/ha or a 28-32% nitrogen solution at 1-2 L/ha) may be added to the spray mixture along with adjuvant to enhance desiccation. The addition of a nitrogen source does not replace the need for an adjuvant. If crop is treated too early, a reduction in seed quality may occur. Crop can be harvested 10 days after application.

Application Rate and Timing – FLUMIOXAZIN 51WDG Herbicide + Glyphosate
FLUMIOXAZIN 51WDG Herbicide plus adjuvant treatment does not desiccate large weeds present in the field; tank mixing **FLUMIOXAZIN 51WDG Herbicide** 140 g/ha and an adjuvant with glyphosate present as isopropyl amine or potassium salt at 900 g a.i./ha increases control of emerged weeds and aids in harvest. Refer to glyphosate tankmix partner label for applicable pre-harvest intervals.

To ensure thorough coverage, use 140-280 L spray solution per hectare. Nozzle selection should meet manufacturer's recommendation for post-emergence application.

NOTE TO BUYER/USER: READ THE FOLLOWING BEFORE USING THIS PRODUCT FOR SPECIAL USE APPLICATIONS:

The DIRECTIONS FOR USE for the uses described in this section of the label were developed by persons other than Valent Canada, Inc. under the User Requested Minor Use Label Expansion program. For these uses, Valent Canada, Inc. has not fully assessed performance (efficacy) and/or crop tolerance (phytotoxicity) under all environmental conditions or for all crop varieties when used in accordance with the label. The user should test the product on a small area first, under local conditions and using standard practices, to confirm the product is suitable for widespread application.

DIRECTIONS FOR USE IN CONTAINER AND FIELD-GROWN ORNAMENTAL DECIDUOUS AND CONIFEROUS TREES INCLUDING NON-BEARING AND NUT TREES, CHRISTMAS TREES AND TREES PRODUCED FOR REFORESTATION, POPLAR, WILLOW, and ASPEN PRODUCED FOR SHORT-ROTATION-INTENSIVE-CULTURE, AND TO MAINTAIN BARE GROUND NON-CROP AREAS IN AND AROUND ORNAMENTAL NURSERIES

FLUMIOXAZIN 51WDG Herbicide offers residual control of susceptible broadleaf and grass weeds listed on this label and assists in the control of acetolactate synthase (ALS) resistant weeds. The length of residual control is dependent on application rate as well as on rainfall and temperature conditions. Length of residual control will

decrease as temperature and precipitation increase and on soils of high organic matter and/or high clay content.

- Do not apply to fine-textured soils.
- Do not apply in enclosed greenhouse structures as injury to plant foliage may occur.
- 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.
- Only apply to healthy established trees and ornamentals. Do not apply when plants are under stress from insects, diseases, animals or winter injury, planting shock or any other stresses.
- Do not make more than two applications in a growing season.
- Do not treat the same plants more than 1 time every 8 weeks.
- Do not apply to moist or wet plant foliage.
- Do not place treated containers in an enclosed structure until receiving 2.5 cm of irrigation or rainfall and for 7 days after treatment.
- Do not apply to concrete or other impermeable surfaces.
- Do not apply in residential or commercial landscapes.
- Do not apply to farm alleys or roads where traffic may result in treated dust settling onto crops or other desirable vegetation.
- Do not apply within 100 metres of non-dormant pears.
- Do not apply to powdery soils or soils that are susceptible to wind displacement unless irrigation can be applied immediately after application.
- Do not apply by air. Apply using ground application equipment only.
- Do not enter or allow entry into treated areas until the restricted entry interval of 6 days for hand-set irrigation of coniferous trees.

ORNAMENTAL TREE SPECIES NOT LISTED ON THIS LABEL
Ornamental tree species vary in their tolerance to FLUMIOXAZIN 51WDG Herbicide. Only those trees listed as "tolerant" on this label have shown tolerance to this product. For the list of tolerant ornamental tree species refer to the Tolerant Coniferous Tree Species Table or the Tolerant Deciduous Tree Species Table of this label. FLUMIOXAZIN 51WDG Herbicide is a very active herbicide and the user should exercise caution until gaining familiarity with this product. For ornamental tree species not listed on this label, due to variability within and among species, crop growth stage, environmental conditions and application techniques, users should first test FLUMIOXAZIN 51WDG Herbicide on a small number of actively growing plants under local conditions and their standard production practices. Prior to treating the entire crop, examine test plants for 4-8 weeks for symptoms of phytotoxicity. Testing FLUMIOXAZIN 51WDG Herbicide on a small number of plants will determine whether the product is suitable for widespread application.

Spotting or speckling on ornamentals may be observed following an application of **FLUMIOXAZIN 51WDG Herbicide** if the spray solution directly contacts actively growing plant foliage. Leaves that receive indirect (drift) spray contact may be affected in a similar manner. Translocation of **FLUMIOXAZIN 51WDG Herbicide** is limited, thus established vigorous growing ornamentals outgrow this condition rapidly and develop normally.

Moisture is necessary to activate **FLUMIOXAZIN 51WDG Herbicide** in soil for residual weed control. Dry weather following applications of **FLUMIOXAZIN 51WDG Herbicide** may reduce effectiveness. However, when adequate moisture is received after dry conditions, **FLUMIOXAZIN 51WDG Herbicide** will control susceptible germinating weeds. **FLUMIOXAZIN 51WDG Herbicide** may not control weeds that germinate after application but before an activating rainfall/irrigation or weeds that germinate through cracks resulting from dry soil.

When adequate moisture is not received after a **FLUMIOXAZIN 51WDG Herbicide** application, weed control may be improved by irrigation with at least ½ to 1 cm of water. Weed control will be reduced if there is mechanical incorporation into the soil or if emerged weeds are controlled by cultivation.

BAND APPLICATION
When banding, use proportionately less water and **FLUMIOXAZIN 51WDG Herbicide** per hectare.

BACKPACK APPLICATION
When applying **FLUMIOXAZIN 51WDG Herbicide** with a backpack sprayer follow all above sprayer and application information. Backpack sprayers should be calibrated to deliver approximately 1000 L of spray solution per hectare with 10 L of spray solution covering 100 m^2.

FLUMIOXAZIN 51WDG Herbicide RATES g/ha	**FLUMIOXAZIN 51WDG Herbicide RATES g/100m²**	**FLUMIOXAZIN 51WDG Herbicide RATES g/10 L**
280	2.8	2.8
420	4.2	4.2

APPLICATION TO CONTAINER AND FIELD-GROWN CONIFEROUS TREES, INCLUDING NON-BEARING AND NUT TREES, CHRISTMAS TREES AND TREES PRODUCED FOR REFORESTATION

FLUMIOXAZIN 51WDG Herbicide may be applied to established container and field-grown coniferous trees. The coniferous tree species listed in the "Tolerant Coniferous Trees" Section below have shown tolerance to applications of **FLUMIOXAZIN 51WDG Herbicide** only when applied to hardened off plant material. All over the top applications of **FLUMIOXAZIN 51WDG Herbicide** should be applied prior to bud swell in the spring or delayed until coniferous trees have sufficiently hardened off in the fall prior to herbicide application. During periods of cool, cloudy weather, use caution to ensure coniferous trees have hardened off prior to herbicide application. Do not apply to coniferous trees within 1 year of seedling emergence. Do not enter treated areas for hand-set irrigation for a period of 6 days after application.

For non-dormant coniferous ornamentals, applications may be made using a directed hooded or shielded spray. Avoid direct spray onto plant surfaces, foliage and green bark. FLUMIOXAZIN 51WDG Herbicide applications made after bud swell may result in injury if herbicide contacts foliage of trees. Splashing of herbicide treated soil onto foliage can result in injury and should be avoided.

FLUMIOXAZIN 51WDG Herbicide will provide preemergence control of listed broadleaf weeds and grasses, and should be applied to a tilled, weed-free surface. **FLUMIOXAZIN 51WDG Herbicide** may be incorporated with 1-2 cm of water following application. Mechanically incorporating **FLUMIOXAZIN 51WDG Herbicide** will disturb soil surfaces, which may reduce herbicidal efficacy. Do not apply to moist or wet plant foliage.

TOLERANT CONIFEROUS TREES

Common Name	**Scientific Name**
Eastern White Cedar	*Thuja occidentalis*

Oriental Cedar	*Thuja orientalis*
Fir, Douglas	*Pseudotsuga menzesii*
Fir, Balsam	*Abies balsamea*
Fir, Fraser	*Abies fraseri*
Fir, Concolor	*Abies concolor*
Fir, Cork Bark	*Abies lasiocarpa*
Fir, Grand	*Abies grandis*
Fir, Noble	*Abies procera*
Hemlock, Eastern	*Tsuga canadensis*
Hemlock, Western	*Tsuga heterophylla*
Juniper, Blue Star	*Juniperus scopularum*
Juniper, Creeping	*Juniperus horizontalis*
Juniper, Japanese Garden	*Juniperus chinensis*
Juniper, Tamarix	*Juniperus sabina*
Pine, Austrian	*Pinus nigra*
Pine, Eastern White	*Pinus strobus*
Pine, Jack	*Pinus banksiana*
Pine, Lodgepole	*Pinus contorta*
Pine, Mugo	*Pinus mugo*
Pine, Ponderosa	*Pinus ponderosa*
Pine, Scotch	*Pinus sylvestris*
Spruce, Blue	*Picea pungens*
Spruce, Dwarf Alberta	*Picea glauca conica*
Spruce, Norway	*Picea abies*
Spruce, Sitka	*Picea sitchensis*
Yew, English	*Taxus baccata*
Yew, Japanese	*Taxus cuspidata*

APPLICATION TO CONTAINER AND FIELD-GROWN DECIDUOUS TREES AND NON-BEARING FRUIT AND NUT TREES

FLUMIOXAZIN 51WDG Herbicide may be applied to established container and field-grown deciduous trees. Preemergence applications of **FLUMIOXAZIN 51WDG Herbicide** should be made to tilled, weed-free and deciduous tree plantings. The deciduous trees species listed in the "Tolerant Deciduous Trees" section below have shown tolerance to applications of **FLUMIOXAZIN 51WDG Herbicide** only when applied to the soil and base of the plant.

For maximum safety to deciduous trees, directed applications of **FLUMIOXAZIN 51WDG Herbicide** should be made to the soil surface prior to bud swell in the spring or after dormancy has initiated in the fall. Direct

application of **FLUMIOXAZIN 51WDG Herbicide** to the soil surface and away from plant material. Avoid direct spray onto plant surfaces, flowers, foliage and green bark. **FLUMIOXAZIN 51WDG Herbicide** applications made after bud swell may result in injury if herbicide contacts foliage of trees. Splashing of herbicide treated soil onto foliage can result in injury and should be avoided.

Avoid making applications under environmental conditions that favour a drift to non-targeted areas. Do not apply to trees established less than 1 year, unless protected from spray contact by non-porous wraps, grow tubes or waxed containers. Newly established or transplanted trees should be sufficiently watered-in prior to application to settle soil around the plant.

Mechanically incorporating **FLUMIOXAZIN 51WDG Herbicide** will disturb soil surfaces, which may reduce herbicidal efficacy. The use of spray shields that limit exposure of foliage and bark to **FLUMIOXAZIN 51WDG Herbicide** is required.

TOLERANT DECIDUOUS TREES*

Common Name	**Scientific Name**
Apricot*	*Prunus* spp.
Ash	*Fraxinus* spp.
Birch	*Betula* spp.
Buckeye	*Aesculus* spp.
Cherry*	*Prunus* spp.
Chestnut	*Castanea* spp.
Dogwood	*Cornus* spp.
Ginkgo	*Ginkgo* spp.
Hawthorn	*Crataegus* spp
Honeylocust	*Gleditsia* spp.
Larch	*Larix* spp.
Lilac	*Syringa* spp.
Maple**	*Acer* spp.
Oak	*Quercus* spp.
Poplar	*Populus* spp.
Peach*	*Prunus* spp.
Plum*	*Prunus* spp.
Pecan*	*Carya* spp.
Redbud	*Cercis canadensis*
Sweetgum	*Liquidambar styraciflua*
Sycamore	*Platanus* spp.
Walnut, Black	*Juglans nigra*
Willow	*Salix* spp.

* Non-bearing trees only.
** Not for use on maple trees used for production of maple syrup or sap.

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

Apply **FLUMIOXAZIN 51WDG Herbicide** only to:

- Bare ground in and around ornamental nurseries.
- Bare ground areas around buildings and other structures. Do not apply within any enclosed structure.
- Bare ground along fence rows.
- Gravel surfaces and driveways.
- Do not apply by air. Use ground application equipment only.
- Do not make more than two applications in a growing season.

CONTAINER AND FIELD-GROWN ORNAMENTAL DECIDUOUS AND CONIFEROUS TREES INCLUDING NON BEARING FRUIT AND NUT TREES, CHRISTMAS TREES AND TREES PRODUCED FOR REFORESTATION, POPLAR, WILLOW, and ASPEN PRODUCED FOR SHORT-ROTATION-INTENSIVE-CULTURE, AND TO MAINTAIN BARE GROUND NON-CROP AREAS IN AND AROUND ORNAMENTAL NURSERIES - Application Rates and Weed Claims

WEEDS CONTROLLED	Soil Type[1]	RATE (g/ha)	COMMENTS
Redroot pigweed (*Amaranthus retroflexus*) Green pigweed (*Amaranthus powellii*) Common chickweed (*Stellaria media*) Common ragweed (*Ambrosia artemisiifolia*) Common lamb's-quarters (*Chenopodium album*) Green foxtail (*Setaria viridis*) Hairy nightshade (*Solanum sarachoides*) Dandelion (*Taraxacum officinale*) Eastern black nightshade (*Solanum ptycanthum*) Kochia (*Kochia scoparia*) including Group 2, 4, and 9 resistant kochia Canada fleabane (*Conyza canadensis)* Waterhemp, including biotypes resistant to herbicide groups 2,5 and 9 Palmer amaranth *(Amaranthus palmeri)* Suppression only Moss Volunteer canola (*Brassica napus*) including glyphosate, glufosinate and imidazolinone tolerant varieties Liverwort	Coarse-textured, with <5% organic matter	280	Preemergence: Apply prior to weed emergence. Postemergence: When weeds are already emerged, apply **FLUMIOXAZIN 51WDG Herbicide** as a tank mix[2] with a glyphosate product, present as isopropyl Amine or potassium salt, at 1.2 kg a.i./ha. Apply only as a directed shielde or hooded spray to established trees.
	Medium-textured, with <5% organic matter	420	

[1]: Do not apply on soils with > 5% OM, or fine-textured soils.
[2]: Refer to the respective tank mix partner label for additional recommendations, restrictions and precautions. Follow the most restrictive application directions for each of the tank mix partners.

DIRECTIONS FOR USE IN DRY BULB ONION

FLUMIOXAZIN 51WDG Herbicide offers residual control of susceptible broadleaf and grass weeds listed on this label and assists in the control of acetolactate synthase (ALS) resistant weeds. The length of residual control is dependent on the application rate as well as on rainfall and temperature conditions. Length of residual control will decrease as temperature and precipitation increase and on soils of high organic matter and/or high clay content.

Crop injury may occur from applications made to poorly drained soils and/or applications made under cool, wet conditions. Risk of crop injury can be minimized by using on well-drained soils. Gently irrigate after application to ensure the treated soil is not blown onto the leaf surface or onto an adjacent crop. Treated soil that is splashed or wind blown onto newly emerged crops may result in temporary crop injury.

Moisture is necessary to activate **FLUMIOXAZIN 51WDG Herbicide** in soil for weed control. Dry weather following applications of **FLUMIOXAZIN 51WDG Herbicide** may reduce effectiveness. However, when adequate moisture is received after dry conditions, **FLUMIOXAZIN 51WDG Herbicide** will control susceptible germinating weeds. **FLUMIOXAZIN 51WDG Herbicide** may not control weeds that germinate after application but before an activating rainfall/irrigation or weeds that germinate through cracks resulting from dry soil.

When adequate moisture is not received after a **FLUMIOXAZIN 51WDG Herbicide** application, weed control may be improved by irrigation with at least ½ to 1 cm of water. Weed control will be reduced if there is mechanical incorporation into the soil or if emerged weeds are controlled by cultivation.

- Avoid spray overlap as severe crop injury may occur.
- Do not apply by air.
- Apply **FLUMIOXAZIN 51WDG Herbicide** with ground equipment using standard commercial sprayers equipped with flat fan or flood nozzles (pre-emergence applications only) designed to deliver the desired spray pressure and spray volume to ensure thorough coverage.
- Do not apply this product through any type of irrigation system.
- Severe crop injury will result when soils are flooded following applications of **FLUMIOXAZIN 51WDG Herbicide**.
- Apply only once per growing season.
- Do not apply on soils that contain greater than 90% sand plus gravel.
- Do not apply on fine-textured soils.
- Do not apply in tank mix or with an adjuvant.
- Apply to transplanted onions between the 2-leaf and 6-leaf stage and on direct seed onions between the 3-leaf and 6-leaf stage prior to emergence of weeds.
- Use appropriate water volumes to ensure good spray coverage.
- Do not apply within 45 days of harvest.
- This product will not control emerged weeds.

DRY BULB ONION– Application Rate and Weed Claims			
WEEDS CONTROLLED	**Soil Type[1]**	**RATE (g/ha)**	**COMMENTS**
Redroot pigweed (*Amaranthus retroflexus*) Green pigweed (*Amaranthus powellii*) Common ragweed (*Ambrosia artemisiifolia*) Common lamb's-quarters (*Chenopodium album*) Hairy nightshade (*Solanum sarachoides*) Eastern black nightshade (*Solanum ptycanthum*) Kochia (*Kochia scoparia*) including Group 2, 4, and 9 resistant kochia Canada fleabane (*Conyza canadensis)*	Coarse- and medium-textured mineral soil, with <5% organic matter and muck soils	140	Apply prior to weed emergence.

[1]Suppression only in muck soils and medium-textured mineral soils with <5% OM

DIRECTIONS FOR USE IN POTATO

Significant crop injury may occur from applications made to poorly drained soils and/or applications made under cool, wet conditions. Severe crop injury will result when soils are flooded following applications of **FLUMIOXAZIN 51WDG Herbicide**. Treated soil that is splashed or wind blown onto newly emerged crops may result in temporary crop injury.

Moisture is necessary to activate **FLUMIOXAZIN 51WDG Herbicide** in soil for residual weed control. Dry weather following applications of **FLUMIOXAZIN 51WDG Herbicide** may reduce effectiveness. **FLUMIOXAZIN 51WDG Herbicide must be activated before crop emergence (cracking) or serious crop injury could occur. Irrigation with at least ½ to 1 cm of water is recommended before ground crack occurs.**

However, when adequate moisture is received after dry conditions, **FLUMIOXAZIN 51WDG Herbicide** will control susceptible germinating weeds listed on this label. **FLUMIOXAZIN 51WDG Herbicide** may not control weeds that germinate after application but before an activating rainfall/irrigation or weeds that germinate through cracks resulting from dry soil.

GENERAL INSTRUCTIONS and PRECAUTIONS

- Do not apply more than 105 g **FLUMIOXAZIN 51WDG Herbicide** per hectare during a single growing season.
- Do not apply after cracking. This will result in severe injury.
- Do not apply this product through any type of irrigation system.
- Use appropriate water volumes to ensure good spray coverage.
- Mechanical incorporation into the soil or disturbance of the soil surface will reduce weed control.
- **FLUMIOXAZIN 51WDG Herbicide** may be applied to potatoes after hilling for the preemergence suppression of labelled weeds. A minimum of 5 cm of soil must cover the vegetative portion of the potato plant at the time of **FLUMIOXAZIN 51WDG Herbicide** application. Application to potatoes with less than 5 cm of soil covering the vegetative portion of the potato may result in unacceptable crop injury.
- Suppression of the weeds that emerge post-hilling will not be achieved if applications are made prior to hilling. Crop injury may occur if **FLUMIOXAZIN 51WDG Herbicide** is applied at hilling.

POTATO – Application Rates and Weed Claims

WEEDS SUPPRESSED	Soil Type[1]	RATE (g/ha)	COMMENTS
Redroot pigweed (*Amaranthus retroflexus*) Green pigweed (*Amaranthus powellii*) Common ragweed (*Ambrosia artemisiifolia*) Common lamb's-quarters (*Chenopodium album*) Hairy nightshade (*Solanum sarachoides*) Eastern black nightshade (*Solanum ptycanthum*) Kochia (*Kochia scoparia*) including Group 2, 4, and 9 resistant kochia Canada fleabane (*Conyza canadensis)*	Coarse- and medium-textured, with <5% organic matter	105	Apply prior to weed emergence.

[1]: Do not apply on soils with > 5% OM, or fine-textured soils.

DIRECTIONS FOR USE IN SWEET POTATO

Significant crop injury may occur from applications made to poorly drained soils and/or applications made under cool, wet conditions. Severe crop injury will result when soils are flooded following applications of **FLUMIOXAZIN 51WDG Herbicide**. Treated soil that is splashed onto newly emerged crops may result in temporary crop injury.
Moisture is necessary to activate **FLUMIOXAZIN 51WDG Herbicide** in soil for residual weed control. Dry weather following applications of **FLUMIOXAZIN 51WDG Herbicide** may reduce effectiveness. However, when adequate moisture is received after dry conditions, **FLUMIOXAZIN 51WDG Herbicide** will control susceptible germinating weeds listed on this label. **FLUMIOXAZIN 51WDG Herbicide** may not control weeds that germinate after application but before an activating rainfall/irrigation or weeds that germinate through cracks resulting from dry soil.

- Do not apply more than 105 g of **FLUMIOXAZIN 51WDG Herbicide** per hectare during a single growing season.
- Apply to sweet potato field prior to transplanting sweet potatoes. Do not apply after sweet potato slips have been transplanted.
- Do not plant greenhouse grown transplants/slips into **FLUMIOXAZIN 51WDG Herbicide**-treated fields.
- Do not use on any sweet potato variety other than "Beauregard", unless user has tested **FLUMIOXAZIN 51WDG Herbicide** on other variety and has found crop tolerance to be acceptable.
- Use appropriate water volumes to ensure good spray coverage.

SWEET POTATO – Application Rates and Weed Claims

WEEDS SUPPRESSED	Soil Type[1]	RATE (g/ha)	COMMENTS
Redroot pigweed (*Amaranthus retroflexus*) Green pigweed (*Amaranthus powellii*) Common ragweed (*Ambrosia artemisiifolia*) Common lamb's-quarters (*Chenopodium album*) Hairy nightshade (*Solanum sarachoides*) Eastern black nightshade (*Solanum ptycanthum*) Kochia (*Kochia scoparia*) including Group 2, 4, and 9 resistant kochia Canada fleabane (*Conyza canadensis)*	Coarse- and medium-textured, with <5% organic matter	105	Apply prior to weed emergence.

[1]: Do not apply on soils with > 5% OM, or fine-textured soils.

DIRECTIONS FOR USE IN POME FRUIT (APPLE AND PEAR) AND GRAPE

FLUMIOXAZIN 51WDG Herbicide offers residual control of susceptible broadleaf and grass weeds listed on this label and assists in the control of acetolactate synthase (ALS) resistant weeds. The length of residual control is dependent on the application rate as well as on rainfall and temperature conditions. Length of residual control will decrease as temperature and precipitation increase and on soils of high organic matter and/or high clay content.

Crop injury may occur from applications made to poorly drained soils and/or applications made under cool, wet conditions. Risk of crop injury can be minimized by using on well-drained soils.

Moisture is necessary to activate **FLUMIOXAZIN 51WDG Herbicide** in soil for residual weed control. Dry weather following applications of **FLUMIOXAZIN 51WDG Herbicide** may reduce effectiveness. However, when adequate moisture is received after dry conditions, **FLUMIOXAZIN 51WDG Herbicide** will control susceptible germinating weeds. **FLUMIOXAZIN 51WDG Herbicide** may not control weeds that germinate after application but before an activating rainfall/irrigation or weeds that germinate through cracks resulting from dry soil.

When adequate moisture is not received after a **FLUMIOXAZIN 51WDG Herbicide** application, weed control may be improved by irrigation with at least ½ to 1 cm of water. Residual weed control will be reduced if there is mechanical incorporation into the soil or if emerged weeds are controlled by cultivation.

- Do not apply to fine-textured soils.
- **FLUMIOXAZIN 51WDG Herbicide** should be tank mixed with glyphosate, present as isopropyl amine or potassium salt, for control of emerged weeds. Refer to the respective tank mix partner label for rates, additional recommendations, restrictions and precautions. Follow the most restrictive label limitations and precautions of the tank mix product(s) being used.
- Only apply to healthy, established trees. Do not apply when plants are under stress from insects, diseases, animals or winter injury, planting shock or any other stresses.
- **FLUMIOXAZIN 51WDG Herbicide** should be applied as a uniform broadcast application to the orchard floor or as a uniform band directed at the base of the trunk or vine.
- Do not make more than two applications in a growing season.
- Do not make a sequential application within 30 days of the first application.
- Avoid direct or indirect spray contact to foliage and green bark (including non-barked vines; with the exception of undesirable suckers).
- Use an appropriate water volume to ensure thorough spray coverage.
- Do not apply to farm alleys or roads where traffic may result in treated dust settling onto crops or other desirable vegetation.
- Do not apply within 100 metres of non-dormant pears.
- Do not apply to powdery soils or soils that are susceptible to wind displacement unless irrigation can be applied immediately after application.
- Do not apply by air. Apply using ground application equipment only.

APPLICATION TO POME FRUIT (Apple and Pear):

- Do not apply to apple or pear trees established less than one year, unless protected from spray contact by non-porous wraps, grow tubes or waxed container.
- For apples, do not apply after budbreak unless using hooded or shielded application equipment and applicator can ensure spray drift will not come in contact with crop fruit or foliage.
- Do not apply within 60 days of harvest.
- All applications to pears, or within 100 metres of pears, must be made after final harvest in the fall or prior to 2 months before budbreak in the spring.
- Apply to dormant pears only.

APPLICATION TO GRAPE:

- Do not apply to grapes established less than 2 years.
- Do not apply to grapes that are not trellised or staked unless they are free standing.

- Do not apply within 60 days of harvest.
- New plantings of "own-rooted varieties", such as *Concord*, should be planted so that all roots are a minimum of 20 cm below the soil surface to be treated. In some situations, this may require hilling soil around newly planted vines so that the settled depth of the hill will be 10-12.5 cm above the vineyard floor.

Juice, Raisin and Wine Grapes – Application Timing

- Do not apply during the period after budbreak through final harvest, unless using shielded application equipment and applicator can ensure spray drift will not come in contact with crop fruit or foliage. Unacceptable crop injury may occur if this product comes into contact with non-dormant structures. Shielded applications during this time period should not be made with glyphosate, or products containing glyphosate.

Table Grapes – Application Timing

- **FLUMIOXAZIN 51WDG Herbicide** may be applied during the period following final harvest in the fall.
- Do not apply after budbreak in the spring.

POME FRUIT (APPLE AND PEAR) AND GRAPE - Application Rates and Weed Claims

WEEDS CONTROLLED	Soil Type[1]	RATE (g/ha)	COMMENTS
Redroot pigweed (*Amaranthus retroflexus*) Green pigweed (*Amaranthus powellii*) Common ragweed (*Ambrosia artemisiifolia*) Common lamb's-quarters (*Chenopodium album*) Green foxtail (*Setaria viridis*) Hairy nightshade (*Solanum sarachoides*) Dandelion (*Taraxacum officinale*) Eastern black nightshade (*Solanum ptycanthum*) Kochia (*Kochia scoparia*) including Group 2, 4, and 9 resistant kochia Canada fleabane (*Conyza canadensis)*	Coarse-textured, with <5% organic matter	280	Preemergence: Apply prior to weed emergence. Postemergence: When weeds are already emerged, apply **FLUMIOXAZIN 51WDG Herbicide** as a tank mix[2] with a glyphosate product, present as isopropyl amine or potassium salt, at 1.2 kg a.i./ha
	Medium-textured, with <5% organic matter	420	

[1]: Do not apply on soils with > 5% OM, or fine-textured soils.
[2]: Refer to the respective tank mix partner label for additional recommendations, restrictions and precautions. Follow the most restrictive application directions for each of the tank mix partners.

DIRECTIONS FOR USE IN NUT TREES (INCLUDING ALMOND, BEECH NUT, BUR OAK, BUTTERNUT, CASHEW, CHESTNUT, CHINQUAPIN, FILBERT [HAZELNUT], GINKO, HEART NUT, HICKORY NUT, JAPANESE HORSE-CHESTNUT, MONKEY PUZZLE, PECAN, PINE NUTS, WALNUT [BLACK AND ENGLISH], YELLOWHORN, CULTIVARS AND VARIETIES AND/OR HYBRIDS OF THESE)

FLUMIOXAZIN 51WDG Herbicide offers residual control of susceptible broadleaf and grass weeds listed on this label and assists in the control of acetolactate synthase (ALS) resistant weeds. The length of residual control is dependent on the application rate as well as on rainfall and temperature conditions. Length of residual control will

decrease as temperature and precipitation increase and on soils of high organic matter and/or high clay content.

Crop injury may occur from applications made to poorly drained soils and/or applications made under cool, wet conditions. Risk of crop injury can be minimized by using on well-drained soils.

Moisture is necessary to activate **FLUMIOXAZIN 51WDG Herbicide** in soil for residual weed control. Dry weather following applications of **FLUMIOXAZIN 51WDG Herbicide** may reduce effectiveness. However, when adequate moisture is received after dry conditions, **FLUMIOXAZIN 51WDG Herbicide** will control susceptible germinating weeds. **FLUMIOXAZIN 51WDG Herbicide** may not control weeds that germinate after application but before an activating rainfall/irrigation or weeds that germinate through cracks resulting from dry soil.

When adequate moisture is not received after a **FLUMIOXAZIN 51WDG Herbicide** application, weed control may be improved by irrigation with at least ½ to 1 cm of water. Weed control will be reduced if there is mechanical incorporation into the soil or if emerged weeds are controlled by cultivation.

- **FLUMIOXAZIN 51WDG Herbicide** should be applied as a uniform broadcast application to the orchard floor or as a uniform band directed under the tree canopy to the base of the trunk.
- Do not apply to fine-textured soils.
- Do not apply to trees established less than one year, unless protected from spray contact by non-porous wraps, grow tubes or waxed containers.
- Avoid direct or indirect spray contact to foliage and green bark.
- Apply after bud break through final harvest using shielded application equipment if the applicator can ensure the spray drift will not come into contact with non-target vegetation, crop fruit and/or foliage.
- Do not make more than two applications in a growing season.
- Do not make a sequential application within 30 days of the first application.
- Do not apply within 60 days of harvest.
- Use an appropriate water volume to ensure thorough spray coverage.
- Do not apply to farm alleys or roads where traffic may result in treated dust settling onto crops or other desirable vegetation.
- Do not apply within 100 metres of non-dormant pears.
- Do not apply to powdery soils or soils that are susceptible to wind displacement unless irrigation can be applied immediately after application.
- Do not apply by air. Apply using ground application equipment only.

NUT TREES (INCLUDING ALMOND, BEECH NUT, BUR OAK, BUTTERNUT, CASHEW, CHESTNUT, CHINQUAPIN, FILBERT [HAZELNUT], GINKO, HEART NUT, HICKORY NUT, JAPANESE HORSE-CHESTNUT, MONKEY PUZZLE,PECAN, PINE NUTS, WALNUT [BLACK AND ENGLISH], YELLOWHORN, CULTIVARS AND VARIETIES AND/OR HYBRIDS OF THESE) - Application Rates and Weed Claims

WEEDS CONTROLLED	Soil Type[1]	RATE (g/ha)	COMMENTS
Redroot pigweed (*Amaranthus retroflexus*) Green pigweed (*Amaranthus powellii*) Common ragweed (*Ambrosia artemisiifolia*)	Coarse-textured, with <5% organic matter	280	Apply prior to weed emergence.
Common lamb's-quarters (*Chenopodium album*)	Medium-textured, with	420	

Green foxtail (*Setaria viridis*) Hairy nightshade (*Solanum sarachoides*) Dandelion (*Taraxacum officinale*) Eastern black nightshade (*Solanum ptycanthum*) Kochia (*Kochia scoparia*) including Group 2, 4, and 9 resistant kochia Canada fleabane (*Conyza canadensis)*	<5% organic matter		

[1]: Do not apply on soils with > 5% OM, or fine-textured soils.

DIRECTIONS FOR USE IN SUNFLOWERS

FLUMIOXAZIN 51WDG Herbicide offers residual control of susceptible broadleaf and grass weeds listed on this label and assists in the control of acetolactate synthase (ALS) resistant weeds. The length of residual control is dependent on the application rate as well as on rainfall and temperature conditions. Length of residual control will decrease as temperature and precipitation increase and on soils of high organic matter and/or high clay content.

Moisture is necessary to activate FLUMIOXAZIN 51WDG Herbicide in soil for residual weed control. Dry weather following applications of FLUMIOXAZIN 51WDG Herbicide may reduce effectiveness. However, when adequate moisture is received after dry conditions, FLUMIOXAZIN 51WDG Herbicide will control susceptible germinating weeds. FLUMIOXAZIN 51WDG Herbicide may not control weeds that germinate after application but before an activating rainfall/irrigation or plants that germinate through cracks resulting from dry soil.

When adequate moisture is not received after a FLUMIOXAZIN 51WDG Herbicide application, weed control may be improved by irrigation with at least ½ to 1 cm of water. Control will be reduced if there is mechanical incorporation into the soil or if emerged weeds are controlled by cultivation.

Do not perform any tillage operations after application or weed control will be reduced.

Apply only once during a single growing season.

Do not apply by air. Apply using ground application equipment only.

The maximum amount of product handled per day using groundboom equipment is 43 kg.

APPLICATION TIMING

Preemergence Applications (Spring)

FLUMIOXAZIN 51WDG Herbicide provides preemergence control of susceptible weeds in sunflower. Apply FLUMIOXAZIN 51WDG Herbicide with ground equipment a minimum of 30 days prior to planting. At least 2.5 cm of rainfall or irrigation must occur between application of FLUMIOXAZIN 51WDG Herbicide and planting. Do not apply to frozen or snow covered soils.

Burndown Applications (Spring and Fall)

FLUMIOXAZIN 51WDG Herbicide, applied as part of a burndown program, may be used for residual weed control where sunflowers will be planted directly into previous crop residues. For control of emerged weeds, tank mix with glyphosate, present as isopropyl amine or potassium salt. Reduced weed control may occur when

burndown applications are made to fields where heavy crop and/or weed residue exist.

For fall burndown: Application should be made in the fall, just before freeze-up and when winter annuals and perennial weeds are still growing to allow for optimum herbicide absorption and activity. Applications made after a killing frost will result in reduced perennial and winter annual weed control. Do not apply to snow covered or frozen soil. Abnormally warm winters may reduce the length of weed control observed in the spring.

Sunflower – **Application Rates and Weed Claims for SPRING APPLICATION**			
WEEDS CONTROLLED	**Soil Type[1]**	**RATE[2] (g/ha)**	**COMMENTS**
Redroot pigweed (*Amaranthus retroflexus*) Green pigweed (*Amaranthus powellii*) Common ragweed (*Ambrosia artemisiifolia*) Common lamb's-quarters (*Chenopodium album*) Hairy nightshade (*Solanum sarachoides*) Dandelion (*Taraxacum officinale*) Eastern black nightshade (*Solanum ptycanthum*) Kochia (*Kochia scoparia*) Canada fleabane (*Conyza canadensis)* Common chickweed (*Stellaria media)* *Suppression only:* Green foxtail (*Setaria viridis*) Volunteer canola (*Brassica napus*) including glyphosate tolerant varieties	Coarse- textured and medium-textured, with <5% organic matter	140	Preemergence: Apply prior to weed emergence. Postemergence: When weeds are already emerged, apply FLUMIOXAZIN 51WDG as a tank mix[3] a glyphosate product, present as isopropyl amine or potassium salt, at 1.2 kg a.i./ha.

[1]: Do not apply on soils with > 5% OM, or fine-textured soils.
[2]. The duration of residual control may be reduced with 140 g/ha in medium textured soils <5% in OM.
[3]: Refer to the respective tank mix partner label for additional recommendations, restrictions and precautions. Follow the most restrictive application directions for each of the tank mix partners.

Sunflower – **Application Rates and Weed Claims for FALL APPLICATION**			
WEEDS CONTROLLED	**Soil Type[1]**	**RATE (g/ha)**	**COMMENTS**
Redroot pigweed (*Amaranthus retroflexus*) Green pigweed (*Amaranthus powellii*) Common ragweed (*Ambrosia artemisiifolia*)	Coarse- textured, with <5% organic matter	140	Preemergence: Apply prior to weed emergence.
Common lamb's-quarters (*Chenopodium album*) Hairy nightshade (*Solanum sarachoides*) Dandelion (*Taraxacum officinale*) Eastern black nightshade (*Solanum ptycanthum*) Kochia (*Kochia scoparia*) Canada fleabane (*Conyza canadensis)* Common chickweed (*Stellaria media)* *Suppression only:* Green foxtail (*Setaria viridis*)	Medium-textured, with <5% organic matter	210	Postemergence: When weeds are already emerged, apply FLUMIOXAZIN 51WDG as a tank mix[2] a glyphosate product, present as isopropyl amine or potassium salt, at 1.2 kg a.i./ha.

Volunteer canola (*Brassica napus*) including glyphosate tolerant varieties			

[1]: Do not apply on soils with > 5% OM, or fine-textured soils.
[2]: Refer to the respective tank mix partner label for additional recommendations, restrictions and precautions. Follow the most restrictive application directions for each of the tank mix partners.

DIRECTIONS FOR USE AS A HARVEST AID IN SUNFLOWER

General Restriction and Limitations

- For use as a desiccant, apply 105-140 g/ha of FLUMIOXAZIN 51WDG Herbicide.
- Do not harvest within 5 days of application.
- Do not apply more than a single application of 210 g/ha of FLUMIOXAZIN 51WDG Herbicide during a growing season.
- Do not plant canola a minimum of 9 months after using this product as harvest aid. Refer to previous Rotational Restrictions table for specific instructions.

Application Rate and Timing – FLUMIOXAZIN 51WDG Herbicide + Adjuvant
Apply FLUMIOXAZIN 51WDG Herbicide at a rate of 105-140 g/ha plus Nufarm Enhance non-ionic spray adjuvant, or other non-ionic spray adjuvants, at 1.25 - 2.5L/1000L, when crop is mature (when seed is 35% moisture or less). For many varieties, this is when the backs of heads are turning yellow and the bracts are turning brown. Use the higher rate with denser crop canopies and/or with higher weed pressures. May also be applied with methylated seed oil (MSO Concentrate) at a rate of 2.5 L/ha. A spray grade nitrogen source (either ammonium sulphate at 2.24-2.8 kg/ha or a 28-32% nitrogen solution at 1-2 L/ha) may be added to the spray mixture along with adjuvant to enhance desiccation. The addition of a nitrogen source does not replace the need for an adjuvant. If crop is treated too early, a reduction in seed quality may occur. Crop can be harvested 5 days after application.

To ensure thorough coverage, use 140-280 L spray solution per hectare. Nozzle selection should meet manufacturer's recommendation for post-emergence application.

DIRECTIONS FOR USE IN STRAWBERRY

Crop injury may occur from applications made to poorly drained soils and/or applications made under cool, wet conditions. Severe crop injury will result when soils are flooded following applications of **FLUMIOXAZIN 51WDG Herbicide**. Risk of crop injury can be minimized by using on well-drained soils.

Moisture is necessary to activate **FLUMIOXAZIN 51WDG Herbicide** in soil for residual weed control. Dry weather following applications of **FLUMIOXAZIN 51WDG Herbicide** may reduce effectiveness. However, when adequate moisture is received after dry conditions, **FLUMIOXAZIN 51WDG Herbicide** will control susceptible germinating weeds listed on this label. **FLUMIOXAZIN 51WDG Herbicide** may not control weeds that germinate after application but before an activating rainfall/irrigation or weeds that germinate through cracks resulting from dry soil.

When adequate moisture is not received after a **FLUMIOXAZIN 51WDG Herbicide** application, weed control may be improved by irrigation with at least ½ to 1 cm of water. Weed control will be reduced if there is mechanical incorporation into the soil or if emerged weeds are controlled by cultivation.

- Do not make more than one application per growing season.
- Use an appropriate water volume to ensure thorough spray coverage.

- Do not apply this product through any type of irrigation system.
- Do not allow spray drift to come in contact with fruit or foliage.
- Application after fruit set may result in spotting of fruit and should be avoided. Do not apply after fruit set.
- Unacceptable crop injury, including yield loss, may occur if this product comes into contact with non-dormant structures.

STRAWBERRY – Application Rate and Weed Claims

WEEDS CONTROLLED	Soil Type[1]	Rates (g/ha)	COMMENTS
Redroot pigweed (*Amaranthus retroflexus*) Green pigweed (*Amaranthus powellii*) Common ragweed (*Ambrosia artemisiifolia*) Common lamb's-quarters (*Chenopodium album*) Hairy nightshade (*Solanum sarachoides*) Dandelion (*Taraxacum officinale*) Eastern black nightshade (*Solanum ptycanthum*) Kochia (*Kochia scoparia*) including Group 2, 4, and 9 resistant kochia Canada fleabane (*Conyza canadensis)* *Suppression only:* Green foxtail (*Setaria viridis*)	Coarse- and medium-textured, with <5% organic matter	210	Apply prior to weed emergence. Broadcast applications may be made to dormant strawberries. For non-dormant strawberries, applications must be made to row middles only, using a hooded or shielded sprayer.

[1]: Do not apply on soils with > 5% OM, or fine-textured soils.

DIRECTIONS FOR USE IN LOWBUSH BLUEBERRY

FLUMIOXAZIN 51WDG Herbicide offers residual control of susceptible broadleaf and grass weeds listed on this label and assists in the control of acetolactate synthase (ALS) resistant weeds.

Crop injury may occur from applications made to poorly drained soils and/or applications made under cool, wet conditions. Risk of crop injury can be minimized by using on well-drained soils.

Moisture is necessary to activate FLUMIOXAZIN 51WDG Herbicide in soil for residual weed control. Dry weather following applications of FLUMIOXAZIN 51WDG Herbicide may reduce effectiveness. However, when adequate moisture is received after dry conditions, FLUMIOXAZIN 51WDG Herbicide will control susceptible germinating weeds. FLUMIOXAZIN 51WDG Herbicide may not control weeds that germinate after application but before an activating rainfall/irrigation or weeds that germinate through cracks resulting from dry soil.

When adequate moisture is not received after a FLUMIOXAZIN 51WDG Herbicide application, weed control may be improved by irrigation with at least ½ to 1cm of water. Weed control will be reduced if there is mechanical incorporation into the soil or if emerged weeds are controlled by cultivation.

- All applications should be made to dormant lowbush blueberries. Unacceptable crop injury, including yield loss, may occur if this product comes into contact with non-dormant structures.
- Do not make more than two applications in a growing season. Do not make a sequential application within 30 days of the first application. Apply FLUMIOXAZIN 51WDG Herbicide to dormant plants in the sprout year (spring and/or fall) or as a dormant post harvest (fall).
- Apply in adequate water volume to ensure thorough coverage.
- Do not apply by air. Apply using ground application equipment only.

LOWBUSH BLUEBERRY - Application Rates and Weed Claims

WEEDS CONTROLLED	**Soil Type[1]**	**RATE (g/ha)**	**COMMENTS**
Redroot pigweed (*Amaranthus retroflexus*) Green pigweed (*Amaranthus powellii*) Common ragweed (*Ambrosia artemisiifolia*) Common lamb's-quarters (*Chenopodium album*) Green foxtail (*Setaria viridis*) Hairy nightshade (*Solanum sarachoides*) Dandelion (*Taraxacum officinale*) Eastern black nightshade (*Solanum ptycanthum*) Kochia (*Kochia scoparia*) including Group 2, 4, and 9 resistant kochia Canada fleabane (*Conyza canadensis)*	Coarse-textured, with <5% organic matter	140	Apply prior to weed emergence.
	Medium-textured, with <5% organic matter	210	
WEEDS SUPPRESSED			
Moss	Coarse-textured, with <5% organic matter	280	
	Medium-textured, with <5% organic matter	420	

[1]: Do not apply on soils with > 5% OM, or fine-textured soils.

DIRECTIONS FOR USE IN CROP SUBGROUP 13-07A: CANEBERRY

FLUMIOXAZIN 51WDG Herbicide offers residual control of susceptible broadleaf and grass weeds listed on this label and assists in the control of acetolactate synthase (ALS) resistant weeds. The length of residual control is dependent on the application rate as well as on rainfall and temperature conditions. Length of residual control will decrease as temperature and precipitation increase and on soils of high organic matter and/or high clay content.

Crop injury may occur from applications made to poorly drained soils and/or applications made under cool, wet conditions. Risk of crop injury can be minimized by using on well-drained soils.

Moisture is necessary to activate FLUMIOXAZIN 51WDG Herbicide in soil for residual weed control. Dry weather following applications of FLUMIOXAZIN 51WDG Herbicide may reduce effectiveness. However, when adequate moisture is received after dry conditions, FLUMIOXAZIN 51WDG Herbicide will control susceptible germinating weeds. FLUMIOXAZIN 51WDG Herbicide may not control weeds that germinate after application but before an activating rainfall/irrigation or weeds that germinate through cracks resulting from dry soil.

When adequate moisture is not received after a FLUMIOXAZIN 51WDG Herbicide application, weed control may be improved by irrigation with at least ½ to 1 cm of water. Residual weed control will be reduced if there is mechanical incorporation into the soil or if emerged weeds are controlled by cultivation.

- Do not apply to fine-textured soils.
- FLUMIOXAZIN 51WDG Herbicide should be applied as a uniform broadcast application to the orchard floor or as a uniform band directed at the base of the canes.
- Do not make more than two applications in a growing season.
- Do not make a sequential application within 30 days of the first application.
- Do not apply within 7 days of harvest.
- Avoid direct or indirect spray contact to foliage and green canes.
- The preferred application timing for FLUMIOXAZIN 51WDG Herbicide is in the fall to maximize the potential for rainfall to activate and set the herbicide.
- Do not apply over the top of crop or allow spray to come in contact with crop as a result of application or drift.
- Use an appropriate water volume to ensure thorough spray coverage.
- Do not apply to farm alleys or roads where traffic may result in treated dust settling onto crops or other desirable vegetation.
- Do not apply within 100 metres of non-dormant pears.
- Do not apply to powdery soils or soils that are susceptible to wind displacement unless irrigation can be applied immediately after application.
- Do not apply by air. Apply using ground application equipment only.
- Members of Crop Subgroup 13-07A: Caneberry may vary in their tolerance to herbicides, including FLUMIOXAZIN 51WDG Herbicide. Since not all caneberry cultivars, varieties and/or hybrids have been tested for tolerance to FLUMIOXAZIN 51WDG Herbicide, first use should be limited to a small area of each cultivar, variety and/or hybrid to confirm tolerance prior to adoption as a general field practice.

CROP SUBGROUP 13-07A: CANEBERRY (including Blackberry, Loganberry, and Raspberry, black and red, Wild raspberry, Cultivars, varieties and/or hybrids of these) - Application Rates and Weed Claims

WEEDS CONTROLLED	Soil Type[1]	RATE (g/ha)	COMMENTS

Redroot pigweed (*Amaranthus retroflexus*) Green pigweed (*Amaranthus powellii*) Common ragweed (*Ambrosia artemisiifolia*) Common lamb's-quarters (*Chenopodium album*) Green foxtail (*Setaria viridis*) Hairy nightshade (*Solanum sarachoides*) Dandelion (*Taraxacum officinale*) Eastern black nightshade (*Solanum ptycanthum*) Kochia (*Kochia scoparia*) including Group 2, 4, and 9 resistant kochia Canada fleabane (*Conyza canadensis)*	Coarse and Medium-textured, with <5% organic matter	420	Preemergence: Apply prior to weed emergence.

[1]: Do not apply on soils with > 5% OM, or fine-textured soils.

DIRECTIONS FOR USE IN BROCCOLI

FLUMIOXAZIN 51WDG Herbicide offers residual control of susceptible broadleaf and grass weeds listed on this label and assists in the control of acetolactate synthase (ALS) resistant weeds. The length of residual control is dependent on the application rate as well as on rainfall temperature conditions. Length of residual control will decrease as temperature and precipitation increase and on soils of high organic matter and/or high clay content.

Crop injury may occur from applications made to poorly drained soils and/or applications made under cool, wet conditions. Risk of crop injury can be minimized by using on well-drained soils. Gently irrigate after application to ensure the treated soil is not blown onto the leaf surface or onto an adjacent crop. Treated soil that is splashed or wind blown onto newly emerged crops may results in temporary crop injury.

Moisture is necessary to activate FLUMIOXAZIN 51WDG Herbicide in soil for residual weed control. Dry weather following applications of FLUMIOXAZIN 51WDG Herbicide may reduce effectiveness. However, when adequate moisture is received after dry conditions, FLUMIOXAZIN 51WDG Herbicide will control susceptible germinating weeds. FLUMIOXAZIN 51WDG Herbicide may not control weeds that germinate after application but before an activating rainfall/irrigation or weeds that germinate through cracks resulting from dry soil.

When adequate moisture is not received after a FLUMIOXAZIN 51WDG Herbicide application, weed control may be improved by irrigation with at least ½ to 1 cm of water. Weed control will be reduced if there is mechanical incorporation into the soil or if emerged weeds are controlled by cultivation.

- Apply FLUMIOXAZIN 51WDG Herbicide as a hooded or shielded application to row middles prior to transplanting for preemergence control of the weeds. Rainfall or irrigation must occur between application and transplanting in order to activate the product. All applications must be made with

hooded or shielded equipment.

- Do not apply this product through any type of irrigation system.
- Use appropriate water volumes to ensure good spray coverage.
- For preemergence weed control. This product will not control emerged weeds.
- Do not apply more than 210 g of FLUMIOXAZIN 51WDG Herbicide per hectare during a single application.
- Do not apply more than 210 g of FLUMIOXAZIN 51WDG Herbicide per hectare during a single growing season.
- Plants should be grown on raised or plastic mulched beds that are at least **10 cm higher** than the treated row middle and the mulched bed must have **a minimum of a 60 cm bed width**.
- Spray must remain between raised beds and contact no more than the bottom 2.5 cm of the side of the raised bed.
- Spray must be directed to the row middle, away from the crop bed and with minimal contact with plastic, including the sides of the bed. If top of mulch beds (where plants are to be transplanted) is contacted, severe injury can occur due to foliage contact with treated plastic. In this scenario, a rainfall event of 2.5 cm (natural or irrigation) must occur prior to transplanting to reduce FLUMIOXAZIN 51WDG Herbicide residues.
- Irrigate treated field after application and prior to transplanting with minimum of ½-1 cm of water if rainfall does not occur between application and transplanting.
- Do not apply after crops are transplanted.
- Do not apply by air. Apply using ground application equipment only.

BROCCOLI - Application Rates and Weed Claims

WEEDS CONTROLLED	Soil Type[1]	RATE (g/ha)	COMMENTS
Redroot pigweed (*Amaranthus retroflexus*) Green pigweed (*Amaranthus powellii*) Common ragweed (*Ambrosia artemisiifolia*) Common lamb's-quarters (*Chenopodium album*) Hairy nightshade (*Solanum sarachoides*) Dandelion (*Taraxacum officinale*) Eastern black nightshade (*Solanum ptycanthum*) Kochia (*Kochia scoparia*) including Group 2, 4, and 9 resistant kochia Canada fleabane (*Conyza canadensis)*	Coarse and Medium-textured, with <5% organic matter	210	Apply FLUMIOXAZIN 51WDG Herbicide as a hooded or shielded application to row middles prior to transplanting for preemergence control of the weeds. Rainfall or irrigation must occur between application and transplanting in

Suppression only Green foxtail (*Setaria viridis*)			order to activate the product.

[1]: Do not apply on soils with > 5% OM, or fine-textured soils.

DIRECTIONS FOR USE IN FIELD PEPPER

FLUMIOXAZIN 51WDG Herbicide offers residual control of susceptible broadleaf and grass weeds listed on this label and assists in the control of acetolactate synthase (ALS) resistant weeds. The length of residual control is dependent on the application rate as well as on rainfall temperature conditions. Length of residual control will decrease as temperature and precipitation increase and on soils of high organic matter and/or high clay content.

Crop injury may occur from applications made to poorly drained soils and/or applications made under cool, wet conditions. Risk of crop injury can be minimized by using on well-drained soils. Gently irrigate after application to ensure the treated soil is not blown onto the leaf surface or onto an adjacent crop. Treated soil that is splashed or wind blown onto newly emerged crops may results in temporary crop injury.

Moisture is necessary to activate FLUMIOXAZIN 51WDG Herbicide in soil for residual weed control. Dry weather following applications of FLUMIOXAZIN 51WDG Herbicide may reduce effectiveness. However, when adequate moisture is received after dry conditions, FLUMIOXAZIN 51WDG Herbicide will control susceptible germinating weeds. FLUMIOXAZIN 51WDG Herbicide may not control weeds that germinate after application but before an activating rainfall/irrigation or weeds that germinate through cracks resulting from dry soil.

When adequate moisture is not received after a FLUMIOXAZIN 51WDG Herbicide application, weed control may be improved by irrigation with at least ½ to 1 cm of water. Weed control will be reduced if there is mechanical incorporation into the soil or if emerged weeds are controlled by cultivation.

- Apply FLUMIOXAZIN 51WDG Herbicide as a hooded or shielded application to row middles prior to transplanting for preemergence control of the weeds. Rainfall or irrigation must occur between application and transplanting in order to activate the product. All applications must be made with hooded or shielded equipment.
- Do not apply this product through any type of irrigation system.
- Use appropriate water volumes to ensure good spray coverage.
- For preemergence weed control. This product will not control emerged weeds.
- Do not apply more than 210 g of FLUMIOXAZIN 51WDG Herbicide per hectare during a single application.
- Do not apply more than 210 g of FLUMIOXAZIN 51WDG Herbicide per hectare during a single growing season.
- Plants should be grown on raised or plastic mulched beds that are at least **10 cm higher** than the treated row middle and the mulched bed must have **a minimum of a 60 cm bed width**.
- Spray must remain between raised beds and contact no more than the bottom 2.5 cm of the side of the raised bed.
- Spray must be directed to the row middle, away from the crop bed and with minimal contact with plastic, including the sides of the bed. If top of mulch beds (where plants are to be transplanted) is

contacted, severe injury can occur due to foliage contact with treated plastic. In this scenario, a rainfall event of 2.5 cm (natural or irrigation) must occur prior to transplanting to reduce FLUMIOXAZIN 51WDG Herbicide residues.

- Irrigate treated field after application and prior to transplanting with minimum of ½ cm of water if rainfall does not occur between application and transplanting.
- Do not apply during or after bloom.
- Do not apply after crops are transplanted.
- Do not apply by air. Apply using ground application equipment only.

FIELD PEPPER - Application Rates and Weed Claims

WEEDS CONTROLLED	Soil Type[1]	RATE (g/ha)	COMMENTS
Redroot pigweed (*Amaranthus retroflexus*) Green pigweed (*Amaranthus powellii*) Common ragweed (*Ambrosia artemisiifolia*) Common lamb's-quarters (*Chenopodium album*) Hairy nightshade (*Solanum sarachoides*) Dandelion (*Taraxacum officinale*) Eastern black nightshade (*Solanum ptycanthum*) Kochia (*Kochia scoparia*) including Group 2, 4, and 9 resistant kochia Canada fleabane (*Conyza canadensis)* *Suppression only* Green foxtail (*Setaria viridis*)	Coarse-textured, with <5% organic matter	140	Apply Flumioxazin 51WDG Herbicide as a hooded or shielded application to row middles prior to transplanting for preemergence control of the weeds. Rainfall or irrigation must occur between application and transplanting in order to activate the product.
	Medium-textured, with <5% organic matter	210	

DIRECTIONS FOR USE IN MINT (PEPPERMINT AND SPEARMINT)

FLUMIOXAZIN 51WDG Herbicide offers residual control of susceptible broadleaf and grass weeds listed on this label and assists in the control of acetolactate synthase (ALS) resistant weeds. The length of residual control is dependent on the application rate as well as on rainfall and temperature conditions. Length of residual control will decrease as temperature and precipitation increase and on soils of high organic matter and/or high clay content.

Crop injury may occur from applications made to poorly drained soils and/or applications made under cool, wet conditions. Severe crop injury may result when soils are flooded following applications of FLUMIOXAZIN 51WDG Herbicide. Risk of crop injury can be minimized by using on well-drained soils. Gently irrigate after application to ensure the treated soil is not blown onto the leaf surface or onto an adjacent crop. Treated soil that is splashed or wind blown onto newly emerged crops may result in temporary crop injury.

Moisture is necessary to activate FLUMIOXAZIN 51WDG Herbicide in soil for weed control. Dry weather following applications of FLUMIOXAZIN 51WDG Herbicide may reduce effectiveness. However, when adequate moisture is received after dry conditions, FLUMIOXAZIN 51WDG Herbicide will control susceptible germinating weeds. FLUMIOXAZIN 51WDG Herbicide may not control weeds that germinate after application

but before an activating rainfall/irrigation or weeds that germinate through cracks resulting from dry soil.

When adequate moisture is not received after a FLUMIOXAZIN 51WDG Herbicide application, weed control may be improved by irrigation with at least ½ to 1 cm of water. Weed control will be reduced if there is mechanical incorporation into the soil or if emerged weeds are controlled by cultivation.

- Do not apply by air.
- Do not apply this product through any type of irrigation system.
- Use appropriate water volumes to ensure good spray coverage.
- For preemergence weed control. This product will not control emerged weeds.
- Apply only once per season.
- Apply FLUMIOXAZIN 51WDG Herbicide at 280 g/ha in the spring, prior to weed emergence.
- Apply only as a spring application to dormant mint prior to the emergence of new growth. Application to non-dormant mint may result in unacceptable crop injury.
- Do not apply within 80 days of harvest.
- Do not apply to row or baby mint, use only on established mint.
- Do not apply to mint that has been weakened by diseases, insects, nematodes, drought, soil salts, high soil pH, previous pesticides, winter injury or double cutting, as severe injury may occur. Apply only to healthy vigorous mint with undamaged rhizomes.
- Apply in the spring prior to emergence of new growth.
- Do not apply to stands established longer than 3 years.

Many weather related factors, including high wind, splashing or heavy rains or cool conditions at or near mint emergence, may result in mint injury in fields treated with FLUMIOXAZIN 51WDG Herbicide. User should assume these risks before using FLUMIOXAZIN 51WDG Herbicide.

MINT – Application Rate and Weed Claims

WEEDS CONTROLLED	Soil Type	RATE (g/ha)	COMMENTS
Redroot pigweed (*Amaranthus retroflexus*) Green pigweed (*Amaranthus powellii*) Common ragweed (*Ambrosia artemisiifolia*) Common lamb's-quarters (*Chenopodium album*) Green foxtail (*Setaria viridis*) Hairy nightshade (*Solanum sarachoides*) Dandelion (*Taraxacum officinale*) Eastern black nightshade (*Solanum ptycanthum*) Kochia (*Kochia scoparia*) including Group 2, 4, and 9 resistant kochia Canada fleabane (*Conyza canadensis)*	Coarse textured, with <5% organic matter	280	Apply only to established, dormant mint for preemergence control of weeds. Application to non-dormant mint or to baby (row) mint (time from planting of mint roots through the first cutting), may result in unacceptable crop injury. Apply FLUMIOXAZIN 51WDG Herbicide for residual preemergence weed control as a single spring application. Fields plowed or harrowed after a FLUMIOXAZIN 51WDG Herbicide application will result in less effective preemergence activity. In furrow-irrigated fields, corrugating that is done after a FLUMIOXAZIN 51WDG

			Herbicide application will expose untreated soil and break the herbicide barrier, resulting in poor weed control.

DIRECTIONS FOR USE IN CELERY

FLUMIOXAZIN 51WDG Herbicide offers residual control of susceptible broadleaf and grass weeds listed on this label and assists in the control of acetolactate synthase (ALS) resistant weeds. The length of residual control is dependent on the application rate as well as on rainfall and temperature conditions. Length of residual control will decrease as temperature and precipitation increase and on soils of high organic matter and/or high clay content.

Crop injury may occur from applications made to poorly drained soils and/or applications made under cool, wet conditions. Risk of crop injury can be minimized by using on well-drained soils. Gently irrigate after application to ensure the treated soil is not blown onto the leaf surface or onto an adjacent crop. Treated soil that is splashed or wind blown onto newly emerged crops may result in temporary crop injury.

Moisture is necessary to activate FLUMIOXAZIN 51WDG Herbicide in soil for weed control. Dry weather following applications of FLUMIOXAZIN 51WDG Herbicide may reduce effectiveness. However, when adequate moisture is received after dry conditions, FLUMIOXAZIN 51WDG Herbicide will control susceptible germinating weeds. FLUMIOXAZIN 51WDG Herbicide may not control weeds that germinate after application but before an activating rainfall/irrigation or weeds that germinate through cracks resulting from dry soil.

When adequate moisture is not received after a FLUMIOXAZIN 51WDG Herbicide application, weed control may be improved by irrigation with at least ½ to 1 cm of water. Weed control will be reduced if there is mechanical incorporation into the soil or if emerged weeds are controlled by cultivation.

- Do not apply by air.
- Do not apply this product through any type of irrigation system.
- Use appropriate water volumes to ensure good spray coverage.
- For preemergence weed control. This product will not control emerged weeds.
- Do not apply more than 210 g of FLUMIOXAZIN 51WDG Herbicide per hectare during a single application.
- Do not apply more than 210 g of FLUMIOXAZIN 51WDG Herbicide per hectare during a single growing season.
- Plants should be grown on raised or plastic mulched beds that are at least **10 cm higher** than the treated row middle and the mulched bed must have **a minimum of a 60 cm bed width**.
- Spray must remain between raised beds and contact no more than the bottom 2.5 cm of the side of the raised bed.
- Spray must be directed to the row middle, away from the crop bed and with minimal contact with plastic, including the sides of the bed. If top of mulch beds (where plants are to be transplanted) is contacted, severe injury can occur due to foliage contact with treated plastic. In this scenario, a rainfall event of 2.5 cm (natural or irrigation) must occur prior to transplanting to reduce FLUMIOXAZIN 51WDG Herbicide residues.
- Irrigate treated field after application and prior to transplanting with minimum of ½ cm of water if rainfall does not occur between application and transplanting.
- All applications must be made with hooded or shielded equipment.
- Do not apply after crops are transplanted.

CELERY - Application Rates and Weed Claims			
WEEDS CONTROLLED	**Soil Type[1]**	**RATE (g/ha)**	**COMMENTS**
Redroot pigweed (*Amaranthus retroflexus*) Green pigweed (*Amaranthus powellii*) Common ragweed (*Ambrosia artemisiifolia*) Common lamb's-quarters (*Chenopodium album*) Green foxtail (*Setaria viridis*) Hairy nightshade (*Solanum sarachoides*) Dandelion (*Taraxacum officinale*) Eastern black nightshade (*Solanum ptycanthum*) Kochia (*Kochia scoparia*) including Group 2, 4, and 9 resistant kochia Canada fleabane (*Conyza canadensis)*	Coarse-textured, with <5% organic matter	140	Apply FLUMIOXAZIN 51WDG Herbicide as a hooded or shielded application to row middles prior to transplanting for preemergence control of the weeds. Rainfall or irrigation must occur between application and transplanting in order to activate the product.
	Medium-textured, with <5% organic matter	210	
WEEDS SUPPRESSED			
Redroot pigweed (*Amaranthus retroflexus*) Green pigweed (*Amaranthus powellii*) Common ragweed (*Ambrosia artemisiifolia*) Common lamb's-quarters (*Chenopodium album*) Hairy nightshade (*Solanum sarachoides*) Eastern black nightshade (*Solanum ptycanthum*) Kochia (*Kochia scoparia*) including Group 2, 4, and 9 resistant kochia Canada fleabane (*Conyza canadensis)*	Muck Soil	140	

[1]: Do not apply to fine-textured mineral soils.

DIRECTIONS FOR USE IN SUCCULENT SHELLED AND EDIBLE-PODDED PEAS (*Pisum* spp. and pigeon pea)

FLUMIOXAZIN 51WDG Herbicide offers residual control of susceptible broadleaf and grass weeds listed on this label and assists in the control of acetolactate synthase (ALS) resistant weeds. The length of residual control is dependent on the application rate as well as on rainfall and temperature conditions. Length of residual control will decrease as temperature and precipitation increase and on soils of high organic matter and/or high clay content.

Moisture is necessary to activate FLUMIOXAZIN 51WDG Herbicide in soil for residual weed control. Dry weather following applications of FLUMIOXAZIN 51WDG Herbicide may reduce effectiveness. However, when adequate moisture is received after dry conditions, FLUMIOXAZIN 51WDG Herbicide will control susceptible germinating weeds. FLUMIOXAZIN 51WDG Herbicide may not control weeds that germinate after application but before an activating rainfall/irrigation or plants that germinate through cracks resulting from dry soil.

When adequate moisture is not received after a FLUMIOXAZIN 51WDG Herbicide application, weed control

may be improved by irrigation with at least ½ to 1 cm of water. Control will be reduced if there is mechanical incorporation into the soil or if emerged weeds are controlled by cultivation.

Do not perform any tillage operations after application or weed control will be reduced.

Apply only once during a single growing season.

Do not apply by air. Apply using ground application equipment only.

APPLICATION TIMING

FLUMIOXAZIN 51WDG Herbicide provides preemergence control of susceptible weeds in succulent shelled and edible-podded pea (*Pisum* spp. and pigeon pea). Apply FLUMIOXAZIN 51WDG Herbicide with ground equipment prior to planting or within 3 days after planting and prior to emergence. Application after the succulent shelled and edible-podded pea (*Pisum* spp. and pigeon pea) have begun to crack, or are emerged, will result in severe crop injury.

Environmental conditions, such as cold, saturated soils, and abnormally cool wet weather after seeding may also increase succulent shelled and edible-podded pea (*Pisum* spp. and pigeon pea) injury following an application of FLUMIOXAZIN 51WDG Herbicide. Crop injury symptoms are generally transient and will reduce as growing conditions return to normal. FLUMIOXAZIN 51WDG Herbicide is a very active herbicide and the user should exercise caution until gaining familiarity with this product.

SUCCULENT SHELLED AND EDIBLE-PODDED PEAS (*Pisum* spp. and pigeon pea) – Application Rates and Weed Claims

WEEDS CONTROLLED	**Soil Type[1]**	**RATE[2] (g/ha)**	**COMMENTS**
Redroot pigweed (*Amaranthus retroflexus*) Green pigweed (*Amaranthus powellii*) Common ragweed (*Ambrosia artemisiifolia*) Common lamb's-quarters (*Chenopodium album*) Hairy nightshade (*Solanum sarachoides*) Dandelion (*Taraxacum officinale*) Eastern black nightshade (*Solanum ptycanthum*) Kochia (*Kochia scoparia*) including Group 2, 4, and 9 resistant kochia Canada fleabane (*Conyza canadensis)* Common chickweed (*Stellaria media)* Palmer amaranth (*Amaranthus palmeri*) Waterhemp, including biotypes resistant to herbicide groups 2, 5 and 9 *Suppression only:* Green foxtail (*Setaria viridis*) Volunteer canola (*Brassica napus*) including glyphosate, glufosinate and imidazolinone	Coarse-textured and Medium-textured, with <5% organic matter	140	Preemergence: Apply prior to weed emergence. Use an appropriate water volume to ensure thorough spray coverage (minimum 100 L/ha)

tolerant varieties			

[1]: Do not apply on soils with > 5% OM, or fine-textured soils.
[2].The duration of residual control may be reduced with 140 g/ha in medium textured soils <5% in OM.

DIRECTIONS FOR USE IN ASPARAGUS

Crop injury may occur from applications made to poorly drained soils and/or applications made under cool, wet conditions. Severe crop injury will result when soils are flooded following applications of **FLUMIOXAZIN 51WDG Herbicide**. Risk of crop injury can be minimized by using on well-drained soils. Treated soil that is splashed onto newly emerged crops may result in temporary crop injury.

Moisture is necessary to activate **FLUMIOXAZIN 51WDG Herbicide** in soil for residual weed control. Dry weather following applications of **FLUMIOXAZIN 51WDG Herbicide** may reduce effectiveness. However, when adequate moisture is received after dry conditions, **FLUMIOXAZIN 51WDG Herbicide** will control susceptible germinating weeds listed on this label. **FLUMIOXAZIN 51WDG Herbicide** may not control weeds that germinate after application but before an activating rainfall/irrigation or weeds that germinate through cracks resulting from dry soil.

When adequate moisture is not received after a **FLUMIOXAZIN 51WDG Herbicide** application, weed control may be improved by irrigation with at least ½ to 1cm of water. Residual weed control will be reduced if there is mechanical incorporation into the soil or if emerged weeds are controlled by cultivation.

- Apply only once per growing season.
- Do not apply to fine-textured soils.
- Apply prior to weed emergence.
- Apply only to dormant asparagus established for at least one year. Application to non-dormant asparagus may result in unacceptable crop injury.
- Applications should be made no sooner than two weeks prior to emergence of spears and must be sprinkler or rainfall activated with 1-2 cm of water or some scoring may result.
- Do not work soil within 60 days prior to application in the spring. Soil can be worked after spear harvest in preparation for Flumioxazin 51WDG Herbicide application prior to fern emergence. Treated soil that is splashed or wind blown onto the ferns may result in spotting
- Use an appropriate water volume to ensure thorough coverage.
- **FLUMIOXAZIN 51WDG Herbicide** may cause injury if spears emerge before the application has been activated with water. Ensure an irrigation or rain event occurs between application and spear emergence.
- Do not apply by air. Apply using ground application equipment only.

ASPARAGUS - Application Rates and Weed Claims

WEEDS CONTROLLED	Soil Type[1]	RATE (g/ha)	COMMENTS
Redroot pigweed (*Amaranthus retroflexus*) Green pigweed (*Amaranthus powellii*) Common ragweed (*Ambrosia artemisiifolia*)	Coarse-textured, with <5% organic matter	280	Apply prior to weed emergence.
Common lamb's-quarters (*Chenopodium album*) Green foxtail (*Setaria viridis*) Hairy nightshade (*Solanum sarachoides*) Dandelion (*Taraxacum officinale*) Eastern black nightshade (*Solanum ptycanthum*) Kochia (*Kochia scoparia*) including Group 2, 4, and 9 resistant kochia Canada fleabane (*Conyza canadensis)*	Medium-textured, with <5% organic matter	420	Apply only to dormant asparagus established for at least one year.

[1]: Do not apply on soils with > 5% OM, or fine-textured soils.

DIRECTIONS FOR USE IN HIGHBUSH BLUEBERRY

FLUMIOXAZIN 51WDG Herbicide offers residual control of susceptible broadleaf and grass weeds listed on this label and assists in the control of acetolactate synthase (ALS) resistant weeds.

Crop injury may occur from applications made to poorly drained soils and/or applications made under cool, wet conditions. Risk of crop injury can be minimized by using on well-drained soils.

Moisture is necessary to activate **FLUMIOXAZIN 51WDG Herbicide** in soil for residual weed control. Dry weather following applications of **FLUMIOXAZIN 51WDG Herbicide** may reduce effectiveness. However, when adequate moisture is received after dry conditions, **FLUMIOXAZIN 51WDG Herbicide** will control susceptible germinating weeds. **FLUMIOXAZIN 51WDG Herbicide** may not control weeds that germinate after application but before an activating rainfall/irrigation or weeds that germinate through cracks resulting from dry soil.

When adequate moisture is not received after a **FLUMIOXAZIN 51WDG Herbicide** application, weed control may be improved by irrigation with at least ½ to 1 cm of water. Weed control will be reduced if there is mechanical incorporation into the soil or if emerged weeds are controlled by cultivation.

- Do not apply to fine-textured soils.
- Do not apply after budbreak unless using hooded or shielded application equipment and applicator can ensure spray drift will not come in contact with crop fruit or foliage.
- Do not apply to highbush blueberries established less than 2 years.
- Do not apply within 7 days of harvest.
- Do not make more than two applications in a growing season. Do not make a sequential application within 30 days of the first application.

- Apply in adequate water volume to ensure thorough coverage.
- Do not apply by air. Apply using ground application equipment only.

HIGHBUSH BLUEBERRY - Application Rates and Weed Claims			
WEEDS CONTROLLED	**Soil Type[1]**	**RATE (g/ha)**	**COMMENTS**
Redroot pigweed (*Amaranthus retroflexus*) Green pigweed (*Amaranthus powellii*) Common ragweed (*Ambrosia artemisiifolia*) Common lamb's-quarters (*Chenopodium album*) Green foxtail (*Setaria viridis*) Hairy nightshade (*Solanum sarachoides*) Dandelion (*Taraxacum officinale*) Eastern black nightshade (*Solanum ptycanthum*) Kochia (*Kochia scoparia*) including Group 2, 4, and 9 resistant kochia Canada fleabane (*Conyza canadensis)*	Coarse-textured, with <5% organic matter	280	Apply prior to weed emergence.
	Medium-textured, with <5% organic matter	420	

[1]: Do not apply on soils with > 5% OM, or fine-textured soils.

DIRECTIONS FOR USE IN STONE FRUIT (PEACH, CHERRY, NECTARINE, PLUM, APRICOT)

FLUMIOXAZIN 51WDG Herbicide offers residual control of susceptible broadleaf and grass weeds listed on this label and assists in the control of acetolactate synthase (ALS) resistant weeds. The length of residual control is dependent on the application rate as well as on rainfall and temperature conditions. Length of residual control will decrease as temperature and precipitation increase and on soils of high organic matter and/or high clay content.

Crop injury may occur from applications made to poorly drained soils and/or applications made under cool, wet conditions. Risk of crop injury can be minimized by using on well-drained soils.

Moisture is necessary to activate **FLUMIOXAZIN 51WDG Herbicide** in soil for residual weed control. Dry weather following applications of **FLUMIOXAZIN 51WDG Herbicide** may reduce effectiveness. However, when adequate moisture is received after dry conditions, **FLUMIOXAZIN 51WDG Herbicide** will control susceptible germinating weeds. **FLUMIOXAZIN 51WDG Herbicide** may not control weeds that germinate after application but before an activating rainfall/irrigation or weeds that germinate through cracks resulting from dry soil.

When adequate moisture is not received after a **FLUMIOXAZIN 51WDG Herbicide** application, weed control may be improved by irrigation with at least ½ to 1 cm of water. Weed control will be reduced if there is mechanical incorporation into the soil or if emerged weeds are controlled by cultivation.

- Do not apply to fine-textured soils.
- Do not apply to trees established less than two years, unless protected from spray contact by non-porous wraps, grow tubes or waxed containers.
- Avoid direct or indirect spray contact to foliage and green bark.
- Do not apply during the period after flowering through leaf drop, unless using shielded application equipment and applicator can ensure spray drift will not come in contact with crop foliage.
- Do not make more than two applications in a growing season.
- Do not make a sequential application within 30 days of the first application.
- Do not apply within 60 days of harvest.
- Use an appropriate water volume to ensure thorough spray coverage.
- Do not apply to farm alleys or roads where traffic may result in treated dust settling onto crops or other desirable vegetation.
- Do not apply within 100 metres of non-dormant pears.
- Do not apply to powdery soils or soils that are susceptible to wind displacement unless irrigation can be applied immediately after application.
- Do not apply by air. Apply using ground application equipment only.

STONE FRUIT (PEACH, CHERRY, NECTARINE, PLUM, APRICOT) - Application Rates and Weed Claims

WEEDS CONTROLLED	Soil Type[1]	RATE (g/ha)	COMMENTS
Redroot pigweed (*Amaranthus retroflexus*) Green pigweed (*Amaranthus powellii*) Common ragweed (*Ambrosia artemisiifolia*)	Coarse-textured, with <5% organic matter	280	Apply prior to weed emergence.
Common lamb's-quarters (*Chenopodium album*) Green foxtail (*Setaria viridis*) Hairy nightshade (*Solanum sarachoides*) Dandelion (*Taraxacum officinale*) Eastern black nightshade (*Solanum ptycanthum*) Kochia (*Kochia scoparia*) including Group 2, 4, and 9 resistant kochia Canada fleabane (*Conyza canadensis)*	Medium-textured, with <5% organic matter	420	

[1]: Do not apply on soils with > 5% OM, or fine-textured soils.