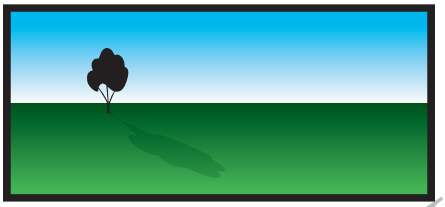
FLUMIOXAZIN	GROUP	14	HERBICIDE
PYROXASULFONE	GROUP	15	HERBICIDE

SureGuard® Xtra
HERBICIDE



FOR USE IN CONTAINER AND FIELD GROWN CONIFERS AND DECIDUOUS TREES (INCLUDING CHRISTMAS TREES), AROUND ESTABLISHED WOODY ORNAMENTALS IN LANDSCAPES, AND TO MAINTAIN BARE GROUND IN NURSERIES AND LANDCAPES.

Active Ingredient	By Wt
Flumioxazin*	14.04%
Pyroxasulfone**	17.81%
Other Ingredients	68.15%
Total	100.00%

*_N_-[7-fluoro-3,4-dihydro-3-oxo-4-(prop-2-ynyl)-2_H_-1,4-benzoxazin-6-yl]cyclohex-1-ene-1,2-dicarboximide

**[5-(difluoromethoxy)-1-methyl-3-(trifluoromethyl)-1_H_-pyrazol-4-yl]methyl 4,5-dihydro-5,5-dimethylisoxazol-3-yl sulfone

SureGuard® Xtra Herbicide is suspension concentrate containing 1.34 lb flumioxazin and 1.70 lb pyroxasulfone per gallon.

EPA Reg. No. 59639-237
EPA Est. 228-IL-1Ⓧ, 228-IL-2Ⓐ, 39578-TX-1Ⓔ, 5481-ID-1Ⓜ, 5905-GA-1Ⓓ, 62171-MS-1Ⓠ, 62171-MS-3Ⓟ, 62171-MS-4, 67545-AZ-1Ⓨ, 67997-IA-1, 67997-IA-7, 70815-GA-1Ⓥ, 70815-GA-2Ⓑ, 70815-GA-3, 71764-NC-1, 86555-MO-1Ⓢ, 89332-GA-2Ⓚ, 97524-GA-1Ⓩ
Superscript is first letter of lot number.

KEEP OUT OF REACH OF CHILDREN

CAUTION

SEE BOOKLET FOR ADDITIONAL PRECAUTIONARY STATEMENTS.

Pyroxasulfone

Always Mix Product Thoroughly Before Use

NET CONTENTS 1 GALLON

Form 2453-A

FIRST AID

If on skin or clothing: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

HOT LINE NUMBER

Have the product container or label with you when calling a poison control center or doctor or going for treatment. You may also contact 800-892-0099 for emergency medical treatment information.

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION: Harmful if absorbed through skin. Avoid contact with skin or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Applicators and other handlers must wear: long-sleeved shirt and long pants, chemical-resistant gloves made of any waterproof material for example barrier laminate, butyl rubber ≥ 14 mils, nitrile rubber ≥ 14 mils, neoprene ≥ 14 mils, natural rubber ≥ 14 mils, polyethylene, polyvinyl chloride or Viton ≥ 14 mils, shoes and socks.

User Safety Requirements

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

Engineering Controls

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standards (WPS) for agricultural pesticides (40 CFR 170.240(d)(4-6), the handler PPE requirements may be reduced or modified as specified in the WPS.

USER SAFETY RECOMMENDATIONS

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

ENVIRONMENTAL HAZARDS

This product is toxic to non-target plants and aquatic invertebrates. **DO NOT** apply when weather conditions favor drift from treated areas. **DO NOT** contaminate water when disposing of equipment washwaters.

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

NON-TARGET ORGANISM ADVISORY

This product is toxic to plants and may adversely impact the forage and habitat of non-target organisms, including pollinators, in areas adjacent to the treated area. Protect the forage and habitat of non-target organisms by following label directions intended to minimize spray drift.

Ground Water Advisory: This chemical has properties and characteristics associated with chemicals detected in ground water. This chemical may leach into ground water if used in areas where soils are permeable, particularly where the water table is shallow.

Surface Water Advisories: DO NOT apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high-water mark. Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas. **DO NOT** contaminate water when disposing of equipment wash waters or rinsate.

The product may impact surface water quality due to runoff of rainwater. This is especially true for poorly draining soils and soils with shallow ground water. This product is classified as having a high potential for reaching surface water via runoff for several months or more after application. A level, well maintained vegetative buffer strip between areas to which this product is applied and surface water features including ponds, streams and springs will reduce potential loading of pyroxasulfone and its degradation product, 5-difluoromethoxy-1H-pyrazol-4-yl) methanesulfonic acid (M1), from runoff water and sediment. Runoff of this product will be reduced by avoiding applications when rainfall is forecasted to occur within 48 hours.

DIRECTIONS FOR USE

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

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

DO NOT apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific statements on this label about personal protective equipment (PPE), and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

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

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, including plants, soil or water is: coveralls, chemical resistant gloves made of waterproof material, example barrier laminate, butyl rubber ≥ 14 mils, nitrile rubber ≥ 14 mils, neoprene ≥ 14 mils, natural rubber ≥ 14 mils, polyethylene, polyvinyl chloride or Viton ≥ 14 mils, shoes plus socks.

NON-AGRICULTURAL USE REQUIREMENTS

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

Keep all unprotected persons out of operating areas, or vicinity where there may be drift.

DO NOT enter or allow others to enter treated areas until sprays have dried.

RISKS OF USING THIS PRODUCT, LIMITED WARRANTY AND DISCLAIMER, AND LIMITATION OF LIABILITY

IMPORTANT: Read the entire Label including this section titled Risks of Using this Product, Limited Warranty and Disclaimer, and Limitation of Liability before using this product. If the terms are not acceptable THEN DO NOT USE THE PRODUCT; rather, return the unopened product within 15 days of purchase for a refund of the purchase price.

RISKS OF USING THIS PRODUCT

The buyer and user (referred to collectively herein as "Buyer") of this product should be aware that there are inherent unintended risks associated with the use of this product which are impossible to eliminate. Such risks of crop injury, non-performance, resistance or other unintended consequences are unavoidable and may result because of such factors as weather, soil conditions, disease, moisture conditions, irrigation practices, condition of the crop at the time of application, presence of other materials either applied in the tank mix with this product or prior to application of this product, cultural practices or the manner of use or application, (or a combination of such factors) all of which are factors beyond the control of Valent. If the Buyer chooses not to accept these risks, THEN THIS PRODUCT SHOULD NOT BE APPLIED. By applying this product Buyer acknowledges and accepts these inherent unintended risks AND TO THE FULLEST EXTENT ALLOWED BY LAW, AGREES THAT ALL SUCH RISKS ASSOCIATED WITH THE APPLICATION AND USE ARE ASSUMED BY THE BUYER.

The Directions for Use of this product must be followed carefully. Valent shall not be responsible for losses or damages (including, but not limited to, loss of yield, increased expenses of farming the crop or such incidental, consequential, or special damages that may be claimed) resulting from use of this product in any manner not set forth on the label. To the extent consistent with applicable law, Buyer assumes all risks associated with the use of this product in any manner or under conditions not specifically directed or approved on the label.

LIMITED WARRANTY AND DISCLAIMER

Valent warrants only that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the label, under average use conditions, when used strictly in accordance with the label **and subject to the Risks of Using This Product as described above. To the extent consistent with applicable law, VALENT MAKES NO OTHER WARRANTIES, EITHER**

(continued)

(continued)

EXPRESSED OR IMPLIED. No agent or representative of Valent or Seller is authorized to make or create any other express or implied warranty.

LIMITATION OF LIABILITY

To the fullest extent allowed by law, Valent or Seller is not liable for any incidental, consequential, indirect or special damages resulting from the use or handling of this product. TO THE FULLEST EXTENT ALLOWED BY LAW, THE EXCLUSIVE REMEDY OF THE BUYER, AND THE EXCLUSIVE MAXIMUM LIABILITY OF VALENT OR SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT SHALL BE THE RETURN OF THE PURCHASE PRICE OF THIS PRODUCT OR, AT THE ELECTION OF VALENT OR SELLER, THE REPLACEMENT OF THE PRODUCT.

PROMPT NOTICE OF CLAIM

To the extent consistent with applicable law allowing such requirements, Valent must be provided notice as soon as Buyer has reason to believe it may have a claim, but in no event later than twenty-one days from date of planting, or twenty-one days from the date of application, whichever is later, so that an immediate inspection of the affected property and growing crops can be made.

To the extent consistent with applicable law, if Buyer does not notify Valent of any claims, in such period, it shall be barred from obtaining any remedy.

NO AMENDMENTS

Valent and Seller offer this product, and Buyer accepts it, subject to the foregoing **Risks of Using This Product, Limited Warranty and Disclaimer,** and **Limitation of Liability,** which may not be modified by any oral or written agreement.

TANK MIXES

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

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

Weed Resistance Management

For resistance management, please note that *SureGuard* Xtra Herbicide contains both a Group 14/flumioxazin and a Group 15/pyroxasulfone herbicide. Any weed population may contain plants naturally resistant to Group 14 and/or Group 15 herbicides. The resistant individuals may dominate the weed population if these herbicides are used repeatedly in the same field. Appropriate resistance-management strategies should be followed.

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

- Rotate the use of *SureGuard* Xtra Herbicide or other Group 14 and Group 15 herbicides within a growing season sequence or among growing seasons with different herbicide groups that control the same weeds in a field.
- Use tank mixtures with herbicides from a different group if such use is permitted; where information on resistance in target weed species is available, use the less resistance-prone partner at a rate that will control the target weed(s) equally as well as the more resistance-prone partner. Consult your local extension service or certified crop advisor if you are unsure as to which active ingredient is currently less prone to resistance.
- Adopt an integrated weed-management program for herbicide use that includes scouting and uses historical information related to herbicide use and crop rotation, and that considers tillage (or other mechanical control methods), cultural (e.g., higher crop seeding rates; precision fertilizer application method and timing to favor the crop and not the weeds), biological (weed-competitive crops or varieties) and other management practices.
- Fields should be scouted prior to application to identify the weed species present and their growth stage to determine if the intended application will be effective. Fields should be scouted after application to verify that the treatment was effective. Indicators of possible herbicide resistance include: 1) failure to control a weed species normally controlled by the herbicide at the dose applied, especially if control is achieved on adjacent weeds; (2) a spreading patch of non-controlled plants of a particular weed species; (3) surviving plants mixed with controlled individuals of the same species. If resistance is suspected, prevent weed seed production in the

(continued)

Weed Resistance Management (continued)
affected area by an alternative herbicide from a different group or by a mechanical method, for example hoeing or tillage. Prevent movement of resistant weed seeds to other fields by cleaning harvesting and tillage equipment when moving between fields and planting clean seed.
- If a weed pest population continues to progress after treatment with this product, discontinue use of this product, and switch to another management strategy or herbicide with a different mode of action, if available.
- Contact your local extension specialist or certified crop advisors for additional pesticide resistance-management and/or integrated weed-management strategies for specific crops and weed biotypes.
- For further information or to report suspected resistance, contact Valent U.S.A. LLC at 800-89-VALENT (898-2536).

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PRODUCT INFORMATION

SureGuard Xtra Herbicide is a preemergence and early postemergence herbicide for control of selected grass and broadleaf weeds in and around ornamental woody shrubs, deciduous trees and conifers (including Christmas trees) grown outdoors in field nurseries or ornamental landscapes, and to maintain bare ground in ornamental use sites.

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

Rainfastness

SureGuard Xtra Herbicide is rainfast one hour after application. **DO NOT** apply *SureGuard* Xtra Herbicide if rain is expected within one hour of application or postemergence efficacy may be reduced.

Soil Characteristics

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

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

IMPORTANT: When applied as directed, plants listed on this label have shown tolerance to *SureGuard* Xtra Herbicide. However, *SureGuard* Xtra Herbicide is an active herbicide and the user must exercise responsible judgment and caution until familiarity is gained with this product. Due to variability within species, crop growth stage, environmental conditions, cultural practices and application techniques, it is advised that users test this product under local growing conditions on a small number of plants and evaluate for 4 to 6 weeks for phytotoxicity. Testing *SureGuard* Xtra Herbicide on a small number of plants will help determine if the herbicide can be used safely for commercial scale application.

Weeds controlled or suppressed by *SureGuard* Xtra Herbicide are listed in Table 2. *Weeds Controlled or Suppressed by Residual Activity of SureGuard Xtra Herbicide.*

Table 1. *SureGuard* Xtra Herbicide Rate Summary

fl oz of *SureGuard* Xtra Herbicide	Pounds of flumioxazin	Pounds of pyroxasulfone
20.0	0.209	0.267

USE RESTRICTIONS (Applicable to all uses on this label)
- **DO NOT** apply more than 20 fl oz (0.209 lb flumioxazin and 0.267 lb pyroxasulfone) of *SureGuard* Xtra Herbicide per acre per year.
- **DO NOT** apply more than 1 application per acre per year.
- **DO NOT** apply by air.
- **DO NOT** rotate to food or feed crops after application to bare ground on non-crop areas.
- **DO NOT** apply in enclosed greenhouse structures.
- **DO NOT** apply when weather conditions favor spray drift from treated areas.
- **DO NOT** incorporate into soil after application.
- **DO NOT** apply this product through any type of irrigation system.
- **DO NOT** apply to turfgrass.
- **DO NOT** apply to areas with adjacent non-dormant pome or stone fruit crops.
- **DO NOT** apply when plants are under stress from insects, diseases, animals, winter injury, planting shock, or any other stresses.
- **DO NOT** apply to, or allow drift onto, herbaceous annual or perennial ornamental plants.
- **DO NOT** plant herbaceous or annual or perennial plants in treated area for at least 60 days after application.
- **DO NOT** apply to nursery seed beds, rooted cuttings, or young plants in liners.
- **DO NOT** apply to bulb crops, budded grafts, or graft unions.
- **DO NOT** harvest fruit, nuts, or berries within one year after application.

USE PRECAUTIONS
- Treatment of powdery, dry soil or light sandy soil, when there is little to no likelihood of rainfall soon after may result in off target movement and possible damage to actively growing susceptible crops when soil particles are moved by wind or water.
- Avoid walking through treated areas onto adjacent turfgrass until sprays have dried.

APPLICATION INFORMATION

SPRAYER PREPARATION
Before applying *SureGuard* Xtra Herbicide, start with clean, well maintained application equipment. The spray tank, as well as all hoses and booms, must be cleaned to ensure no residue from the previous spraying operation remains in the sprayer. Some pesticides, including but not limited to, the sulfonylurea and phenoxy herbicides, are active at very small amounts and can cause crop injury when applied to susceptible crops. The spray equipment must be cleaned according to the manufacturer's directions for the last product used before the equipment is used to apply *SureGuard* Xtra Herbicide. Follow the most restrictive cleanup procedure if two or more products were tank mixed prior to *SureGuard* Xtra Herbicide application.

MIXING INSTRUCTIONS
1. Fill clean spray tank 1/2 to 2/3 of desired level with clean water.
2. If a drift retardant is to be used, add 10 lb of spray grade ammonium sulfate per 100 gallons of spray solution, unless prohibited by the tank mix partner.
3. While agitating, slowly add *SureGuard* Xtra Herbicide to the spray tank. Agitation creates a rippling or rolling action on the water surface.

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

APPLICATION METHOD

Apply *SureGuard* Xtra Herbicide by ground using sprayers equipped with spray nozzles designed to deliver the desired spray pressure and spray volume. Application equipment must be clean and in good repair. Ensure nozzles are uniformly spaced on boom and frequently checked for accuracy.

PREEMERGENCE APPLICATION

Preemergence weed control with *SureGuard* Xtra Herbicide is most effective when applied to clean, weed free soil surfaces prior to weed emergence. Moisture is necessary to activate *SureGuard* Xtra Herbicide on soil for residual weed control. Dry weather following application of *SureGuard* Xtra Herbicide may reduce effectiveness. However, when adequate moisture is received after dry conditions, *SureGuard* Xtra Herbicide will control susceptible germinating weeds.

When adequate moisture is not received soon after applying *SureGuard* Xtra Herbicide to soil, weed control may be improved by utilizing shallow cultivation. If weeds begin to emerge, irrigate (0.5" of water) or cultivate uniformly with shallow tillage equipment that will not damage the crop. Deep cultivation reduces the effectiveness of *SureGuard* Xtra Herbicide and must be avoided.

POSTEMERGENCE APPLICATION

The most effective postemergence weed control with *SureGuard* Xtra Herbicide occurs when applied in combination with a surfactant to weeds less than 2 inches in height. Apply *SureGuard* Xtra Herbicide only to actively growing weeds. Applying *SureGuard* Xtra Herbicide under conditions that do not promote active weed growth will reduce effectiveness. *SureGuard* Xtra Herbicide is most effective when applied under sunny conditions at temperatures above 65°F.

BAND APPLICATION

When applying as a banded application, use proportionately less water and *SureGuard* Xtra Herbicide per acre.

BACKPACK APPLICATION

When applying *SureGuard* Xtra Herbicide with a backpack sprayer calibrate sprayer to deliver 1 gallon of spray solution per 500 to 1,000 sq ft.

For Backpack Application of *SureGuard* Xtra Herbicide

Application Volume	Amount of *SureGuard* Xtra Herbicide to mix in 1 gallon of water	Amount of *SureGuard* Xtra Herbicide to mix in 2 gallons of water	Amount of *SureGuard* Xtra Herbicide to mix in 3 gallons of water
1 gallon per 500 sq ft (=87 GPA)	1.4 tsp	2.8 tsp	4.2 tsp
1 gallon per 750 sq ft (=58 GPA)	2.1 tsp	4.2 tsp	6.3 tsp
1 gallon per 1,000 sq ft (=43.5 GPA)	2.8 tsp	5.6 tsp	8.4 tsp

Example: Applicator wants to spray 1 gallon of *SureGuard* Xtra Herbicide solution per 1,000 sq ft of ground and wants to treat 2,000 sq ft of ground. Therefore, use 5.6 teaspoons of *SureGuard* Xtra Herbicide in 2 gallons of water and apply to 2,000 sq ft of ground.

PREEMERGENCE APPLICATION

To ensure uniform coverage when using boom sprayers, apply at least 10 gallons of spray solution per acre. When making backpack applications, apply 1-2 gallons of spray solution per 1,000 sq ft. Select nozzles that meet manufacturer's gallonage and pressure specification for preemergence herbicide application.

POSTEMERGENCE APPLICATION

To ensure uniform coverage when using boom sprayers, apply at least 15 gallons of spray solution per acre. Increase volume to at least 20 gallons per acre if dense vegetation or heavy residue is present on the soil surface. When applying with a backpack sprayer, apply 1-2 gallons of spray solution per 1,000 sq ft. Select nozzles that meet manufacturer's gallonage and pressure specification for postemergence herbicide application.

Higher gallonage applications generally afford more consistent weed control. **DO NOT** exceed the nozzle manufacturer's specified pressures. For many nozzle types, lower pressure produces larger droplets. When higher flow rates are needed, use higher flow rate nozzles instead of increasing pressure.

ADJUVANTS AND ADDITIVES

When an adjuvant is to be used with this product, use a Chemical Producers and Distributors Association certified adjuvant. Mix *SureGuard* Xtra Herbicide with a crop oil concentrate that contains at least 15% emulsifiers and 80% oil or a non-ionic surfactant containing at least 80% active ingredient when applying *SureGuard* Xtra Herbicide as part of a postemergence weed control program. Verify the mixing compatibility by a jar test before using.

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

Mix *SureGuard* Xtra Herbicide with a non-ionic surfactant containing at least 80% active ingredient when applying *SureGuard* Xtra Herbicide as part of a postemergence weed control program. Verify the mixing compatibility by a jar test before using.

When tank mixing with other herbicides, refer to tank mix partner's label for adjuvant specification. Drift control additives may be used. When a drift control additive is used, read and carefully observe the cautionary statements,

JAR TEST TO DETERMINE COMPATIBILITY OF ADJUVANTS AND *SureGuard* Xtra HERBICIDE

When using *SureGuard* Xtra Herbicide and an adjuvant, perform a jar test before mixing commercial quantities of *SureGuard* Xtra Herbicide, when using *SureGuard* Xtra Herbicide for the first time, when using new adjuvants or when a new water source is being used.

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

MANDATORY SPRAY DRIFT MANAGEMENT

Ground Boom Applications

- Apply with the nozzle height specified by the manufacturer, but no more than 3 feet above the ground or crop canopy. For all other ground applications, the nozzle must be no more than 3 feet from the target vegetation.
- Applicators must elect nozzle and pressure that deliver Medium or coarser droplets in accordance with American Society of Agricultural & Biological Engineers Standard 572 (ASABE S572).
- **DO NOT** apply when wind speeds exceed 15 miles per hour at the application site unless using a shielded sprayer.
- **DO NOT** apply during temperature inversions.

SPRAY DRIFT ADVISORIES

THE APPLICATOR IS RESPONSIBLE FOR AVOIDING OFF-SITE SPRAY DRIFT.

BE AWARE OF NEARBY NON-TARGET SITES AND ENVIRONMENTAL CONDITIONS.

IMPORTANCE OF DROPLET SIZE

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

Controlling Droplet Size

- Volume – Increasing the spray volume so that larger droplets are produced will reduce spray drift. Use the highest practical spray volume for the application. If a greater spray volume is needed, consider using a nozzle with a higher flow rate.

- Pressure – Use the lowest spray pressure specified for the nozzle to produce the target spray volume and droplet size.
- Spray Nozzle – Use a spray nozzle that is designed for the intended application. Consider using nozzles designed to reduce drift.

BOOM HEIGHT
For ground equipment, the boom must remain level with the crop and have minimal bounce.

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

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

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

WIND
Drift potential generally increases with wind speed. AVOID APPLICATIONS DURING GUSTY WIND CONDITIONS.

Applicators need to be familiar with local wind patterns and terrain that could affect spray drift.

Boom-less Ground Applications: Setting nozzles at the lowest effective height will help to reduce the potential for spray drift.

Handheld Technology Applications: Take precautions to minimize spray drift.

Adjuvants and Drift Control Additives: Refer to tank mix partner's label for adjuvant specifications. Drift control additives may be used. When a drift control additive is used, read and carefully observe the cautionary statements and all other information appearing on the additive label.

SPRAYER CLEANUP
Unless using dedicated herbicide spray equipment, including mixing vessels and nurse tanks, must be cleaned each day following *SureGuard* Xtra Herbicide application. After *SureGuard* Xtra Herbicide is applied, the following steps must be used to clean the spray equipment:
- 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.
- Top off tank, add 1 gallon of 3% household ammonia (or equivalent) for every 100 gallons of water, circulate through sprayer for 5 minutes, and then flush all hoses, booms, screens and nozzles for a minimum of 15 minutes. If diaphragms are being used on the spray boom, loosen diaphragms before flushing the spray system, allowing cleaning solution to spray through the open diaphragm. If spray lines have any end caps, they must be loosened before flushing the system, allowing cleaning solution to spray though the loosened caps. To enhance removal of *SureGuard* Xtra Herbicide from the spray system, add a tank cleaner including "Valent Tank Cleaner", in place of ammonia and allow the cleaning solution to remain in the pressurized spray system (spray tank, hoses and boom) for 8 hours before flushing the system for a minimum of 15 minutes.
- Drain tank completely.
- Add enough clean water to the spray tank to allow all hoses, booms, screens and nozzles to be flushed for 2 minutes.
- Remove all nozzles and screens and rinse them in clean water.

Thoroughly clean the spray equipment, including all tanks, hoses, booms, screens, and nozzles, before it is used to apply postemergence pesticides. Equipment with *SureGuard* Xtra Herbicide residue remaining in the system may result in crop injury to the subsequently treated crop.

Table 2. Weeds Controlled or Suppressed by Residual Activity of *SureGuard* Xtra Herbicide

Common Name	Scientific Name	C = Control S = Suppression
BROADLEAF WEED SPECIES		
Alyssum, Hoary	*Berteroa incana*	C
Anoda, Spurred	*Anoda cristata*	C
Beggarweed, Florida	*Desmodium tortuosum*	C
Bittercress, Hairy	*Cardamine hirsute*	C
Buckwheat, Wild	*Polygonum convolvulus*	S
Burclover, California	*Medicago polymorpha*	C
Burnweed, American	*Erechetities hieracifolia*	C
Carpetweed	*Mollugo verticillate*	C
Chamberbitter	*Phyllanthus urinaria*	C
Chickweed		
Common	*Stellaria media*	C
Mouseear	*Cerastium vulgatum*	C
Copperleaf, Hophornbeam	*Acalypha ostryifolia*	S
Croton, Tropic	*Croton glandulosus*	C
Crownbeard, Golden	*Verbesina encelioides*	C
Dandelion	*Taraxacum officinale*	C
Dogfennel	*Eupatorium capillifolium*	C
Doveweed	*Murdannia nudiflora*	C
Eclipta	*Eclipta prostrate*	C
Evening-primrose, Cutleaf	*Oenothera laciniate*	C
Filaree, Redstem*	*Erodium cicutarium*	S
Galinsoga, Hairy	*Galinsoga ciliate*	C
Geranium, Carolina	*Geranium carolinianum*	C
Groundsel, Common	*Senecio vulgaris*	C
Henbit	*Lamium amplexicaule*	C
Horseweed (Marestail)*	*Conyza canadensis*	C
Indigo, Hairy	*Indigofera hirsute*	C
Ivy, Ground	*Glechoma hederacea*	C
Jimsonweed	*Datura stramonium*	C
Kochia	*Kochia scoparia*	C

*Pre-emergence control only

(continued)

Table 2. Weeds Controlled or Suppressed by Residual Activity of *SureGuard* Xtra Herbicide (continued)

Common Name	Scientific Name	C = Control S = Suppression
BROADLEAF WEED SPECIES		
Kyllinga, Green*	*Kyllinga brevifolia*	C
Ladysthumb	*Polygonum persicaria*	C
Lambsquarters, Common	*Chenopodium album*	C
Liverwort	*Marchantia polymorpha*	
Mallow		
Common	*Malva neglecta*	C
Little	*Malva parviflora*	C
Venice	*Hibiscus trionum*	C
Mayweed*	*Anthemis cotula*	C
Morningglorry		
Entireleaf	*Ipomoea hederacea var. integriuscula*	C
Ivyleaf	*Ipomoea hederacea*	C
Red/Scarlet	*Ipomoea coccinea*	C
Smallflower	*Jacquemontia tamnifolia*	C
Tall	*Ipomoea purpurea*	C
Moss	*Bryum spp.*	C
Mustard		
Tumble	*Sisymbrium altissimum*	C
Wild	*Brassica kaber*	C
Nightshade		
Black	*Solanum nigrum*	C
Eastern Black	*Solanum ptycanthum*	C
Hairy	*Solanum sarrachoides*	C
Parsely, Marsh	*Apium leptophyllum*	C
Parsley-Piert	*Alchemilla arvensis*	C
Pearlwort, Birdseye*	*Sagina procumbens*	C
Pennycress, Field	*Thlaspi arvense*	C
Phyllanthus, Longstalked	*Phyllanthus tenellus*	C

*Pre-emergence control only

(continued)

Table 2. Weeds Controlled or Suppressed by Residual Activity of *SureGuard* Xtra Herbicide (continued)

Common Name	Scientific Name	C = Control S = Suppression
BROADLEAF WEED SPECIES		
Pigweed		
Palmer Amaranth	*Amaranthus palmeri*	C
Redroot	*Amaranthus retroflexus*	C
Smooth	*Amaranthus hybridus*	C
Spiny Amaranth	*Amaranthus spinosus*	C
Tumble	*Amaranthus albus*	C
Pineapple-weed*	*Matricaria matricarioides*	S
Plantain		
Broadleaf*	*Plantago major*	C
Buckhorn*	*Plantago lanceolate*	C
Prickly Lettuce	*Latuca serriola*	C
Poinsettia, Wild	*Euphorbia heterophylla*	C
Puncturevine	*Tribulus terrestris*	C
Purslane, Common	*Portulaca oleracea*	C
Pusley, Florida	*Richardia scabra*	C
Radish, Wild	*Raphanus raphanistrum*	C
Ragweed		
Common	*Ambrosia artemisiifolia*	C
Giant	*Ambrosia trifida*	S
Redmaids	*Calandrinia ciliata var menziessii*	C
Redweed	*Melochia corchorifolia*	C
Rocket, Yellow	*Barbarea vulgaris*	C
Senna, Coffee	*Cassia occidentalis*	C
Sesbania, Hemp	*Sesbania exaltata*	C
Shepherd's-purse	*Capsella bursa-pastoris*	C
Sida, Prickly (Teaweed)	*Sida spinose*	C
Smartweed		
Ladysthumb	*Polygonum persicaria*	S
Pennsylvania	*Polygonum pensylvanicum*	S
Sowthistle, Annual	*Sonchus oleraceus*	C

*Pre-emergence control only

(continued)

Table 2. Weeds Controlled or Suppressed by Residual Activity of *SureGuard* Xtra Herbicide (continued)

Common Name	Scientific Name	C = Control S = Suppression
BROADLEAF WEED SPECIES		
Spiderwort, Tropical	*Commelina benghalensis*	C
Spurge		
Petty	*Euphorbia peplus*	C
Prostrate	*Euphorbia humistrata Engelm*	C
Spotted	*Euphorbia maculate*	C
Starbur, Bristly	*Acanthospermum hispidum*	S
Thistle, Russian	*Salsola iberica*	C
Tree, Groundsel	*Baccharis halimifolia*	C
Velvetleaf	*Abutilon theophrasti*	C
Waterhemp		
Common	*Amaranthus rudis*	C
Tall	*Amaranthus tuberculatus*	C
Weed, Mulberry	*Fatuoa villosa*	C
Willowherb, Northern	*Epilobium cillatum*	C
Woodsorrel, Yellow*	*Oxalis stricta*	C
Wormwood, Biennial	*Artemisia biennis*	S
Yellowcress, Marsh	*Rorippa islandica*	C
GRASS WEED SPECIES		
Barnyardgrass*	*Echinochloa crus-galli*	C
Bluegrass, Annual	*Poa annua*	C
Brome, Downy	*Bromus tectorum*	C
Cheat*	*Bromus secalinus*	C
Crabgrass		
Large*	*Digitaria sanguinalis*	C
Smooth*	*Digitaria ischaemum*	C
Southern*	*Digitaria ciliaris*	C
Cupgrass, Southwestern*	*Eriochloa gracilis*	C

*Pre-emergence control only

(continued)

Table 2. Weeds Controlled or Suppressed by Residual Activity of *SureGuard* Xtra Herbicide (continued)

Common Name	Scientific Name	C = Control S = Suppression
GRASS WEED SPECIES		
Foxtail		
Bristly*	*Setaria verticillate*	C
Giant*	*Setaria faberi*	C
Green*	*Setaria viridis*	C
Yellow*	*Setaria glauca*	C
Goosegrass*	*Eleusine indica*	C
Johnsongrass* (seedling)	*Sorghum halepense*	C
Lovegrass, California*	*Eragrostis diffusa*	C
Panicum		
Fall*	*Panicum dichotomiflorum*	C
Texas*	*Panicum texanum*	C
Rice, Red*	*Oryza sativa*	C
Ryegrass		
Italian*	*Lolium multiflorum*	C
Rigid*	*Lolium rigidum*	C
Signalgrass, Broadleaf*	*Brachiaria platyphylla*	C

*Pre-emergence control only

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

Apply *SureGuard* Xtra Herbicide to established container and field grown conifers, which includes applications to Christmas tree plantations. During periods of cool, cloudy weather, use caution to ensure conifers have hardened off prior to herbicide application. **DO NOT** apply to conifers within 1 year of seedling emergence.

PREEMERGENCE APPLICATION

Apply 20 fl oz of *SureGuard* Xtra Herbicide per broadcast acre before weeds emerge. Apply to weed free, established conifers grown in containers or in the field (in ground). If possible, irrigate treated area with 0.5 to 0.75 inch of water immediately following application. *SureGuard* Xtra Herbicide may be sprayed directly over conifers listed in Table 3. *Tolerant Conifers,* provided bud break has not occurred or plants are hardened off. Needle burn may be observed on new flush if plants are actively growing at time of application. However, *SureGuard* Xtra Herbicide will typically not affect subsequent growth. If conifers are not dormant or hardened off at the time of application, and foliar injury cannot be tolerated, apply *SureGuard* Xtra Herbicide as a directed spray to the soil and minimize direct contact or drift of sprays onto foliage. When applied before weed germination, *SureGuard* Xtra Herbicide will control broadleaf weeds and grasses listed in Table 2. *Weeds Controlled or Suppressed by Residual Activity of SureGuard Xtra Herbicide.*

POSTEMERGENCE APPLICATION

Apply 20 fl oz of *SureGuard* Xtra Herbicide per broadcast acre plus an adjuvant (0.25% v/v non-ionic surfactant) after weeds have emerged. Spray *SureGuard* Xtra Herbicide directly over conifers listed in Table 3. *Tolerant Conifers,* provided bud break has not occurred or plants are hardened off. Needle burn may be observed on new flush if plants are actively growing at time of application. However, *SureGuard* Xtra Herbicide will typically not

affect subsequent growth. If conifers are not dormant or hardened off at the time of application, and foliar injury cannot be tolerated, apply *SureGuard* Xtra Herbicide as a directed spray and minimize direct contact or drift of sprays onto foliage.

If applied when weeds are actively growing and no larger than 2 inches in height, *SureGuard* Xtra Herbicide will provide postemergence control of broadleaf weeds and grasses listed in Table 2. *Weeds Controlled or Suppressed by Residual Activity of SureGuard Xtra Herbicide*. Postemergence control of *SureGuard* Xtra Herbicide may be more effective with certain weed species, and may not control mature, stressed, or hardened off weeds that are not actively growing at the time of application.

IMPORTANT: Completely read and follow the label of any potential *SureGuard* Xtra Herbicide tank mix partner. When tank mixing *SureGuard* Xtra Herbicide with other herbicides, always follow the most restrictive label limitations and precautions on the label of any tank mix partner.

TOLERANT CONIFERS

Established conifers listed in Table 3. *Tolerant Conifers* have exhibited tolerance to *SureGuard* Xtra Herbicide but tolerance has not been evaluated on all varieties/cultivars or under all possible environmental conditions and cultural practices. The tolerance of conifers listed in Table 3. *Tolerant Conifers* has also not been evaluated with all possible tank mixtures or sequential application of *SureGuard* Xtra Herbicide and other products. Growers must not apply *SureGuard* Xtra Herbicide to conifers at a commercial scale until first testing a small number of representative plants for tolerance to *SureGuard* Xtra Herbicide under local growing practices and environmental conditions. Monitor tested plants for four to six weeks for symptoms of possible injury or other effects. Testing *SureGuard* Xtra Herbicide on a small number of plants will help grower determine if *SureGuard* Xtra Herbicide can be used safely on a commercial scale.

TABLE 3. TOLERANT CONIFERS

COMMON NAME	SCIENTIFIC NAME
Arborvitae	
American	*Thuja occidentalis*
Oriental	*Thuja orientalis*

(continued)

TABLE 3. TOLERANT CONIFERS (continued)

COMMON NAME	SCIENTIFIC NAME
Fir	
Concolor	*Abies concolor*
Cork Bark	*Abies lasiocarpa*
Douglas	*Pseudotsuga menzesii*
Fraser	*Abies fraseri*
Grand	*Abies grandis*
Noble	*Abies procera*
Turkish	*Abies bommuelleriana*
Hemlock	
Eastern	*Tsuga canadensis*
Western	*Tsuga heterophylla*
Juniper	
Blue Star	*Juniperus scopularum*
Creeping	*Juniperus horizontalis*
Japanese Garden	*Juniperus chinensis*
Tamarix	*Juniperus sabina*
Pine	
Austrian	*Pinus nigra*
Eastern White	*Pinus strobus*
Jack	*Pinus banksiana*
Japanese Black	*Pinus thunbergiana*
Loblolly	*Pinus taeda*
Lodgepole	*Pinus contorta*
Longleaf	*Pinus palustris*
Mugo	*Pinus mugo*
Ponderosa	*Pinus ponderosa*
Sand	*Pinus clausa*
Scotch	*Pinus sylvestris*
Shortleaf	*Pinus echinata*
Slash	*Pinus elliottii*
Virginia	*Pinus virginiana*

(continued)

TABLE 3. TOLERANT CONIFERS (continued)

COMMON NAME	SCIENTIFIC NAME
Spruce	
Blue	*Picea pungens*
Dwarf Alberta	*Picea glauca conica*
Norway	*Picea abies*
Sitka	*Picea sitchensis*
Yew	
English	*Taxus baccata*
Japanese	*Taxus cuspidata*

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

Apply *SureGuard* Xtra Herbicide as a directed spray at the base of container and field grown deciduous trees with an established root system. The deciduous trees listed in Table 4. *Tolerant Deciduous Tree Species* have exhibited tolerance to *SureGuard* Xtra Herbicide only when applied to the soil and base of plants. Application of *SureGuard* Xtra Herbicide over the top of deciduous foliage or green bark may result in unacceptable injury.

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

IMPORTANT: Direct application of *SureGuard* Xtra Herbicide to the soil surface and away from plant foliage and bark. Avoid direct spray contact on plant surfaces, foliage and green bark or injury may result. Application of *SureGuard* Xtra Herbicide after bud swell may cause injury if herbicide contacts foliage. Avoid application under environmental conditions that favor drift to non-targeted areas.

PREEMERGENCE APPLICATION

Apply 20 fl oz of *SureGuard* Xtra Herbicide per broadcast acre as a preemergence (to weed emergence) application. Apply *SureGuard* Xtra Herbicide to weed free soil around at base of deciduous trees grown in containers or in the field (in-ground). If possible, irrigate the treated area with 0.5 to 0.75 inch of water immediately following application. *SureGuard* Xtra Herbicide may be applied to the soil surface and base of deciduous trees, provided that direct and indirect (drift) applications to plant foliage, flowers and green bark does not occur. Mechanically incorporating

SureGuard Xtra Herbicide will disturb soil surfaces, which may reduce herbicidal efficacy. The use of spray shields that limit exposure of foliage and bark to *SureGuard* Xtra Herbicide is suggested. When applied before weed germination, *SureGuard* Xtra Herbicide will control broadleaf and grassy weeds listed in Table 2. *Weeds Controlled or Suppressed by Residual Activity of SureGuard Xtra Herbicide*.

POSTEMERGENCE APPLICATION

Apply 20 fl oz of *SureGuard* Xtra Herbicide per broadcast acre plus an adjuvant (0.25% v/v non-ionic surfactant). Make postemergence (to weed emergence) applications *SureGuard* Xtra Herbicide when weeds are actively growing and are no larger than 2 inches in height. The addition of a surfactant enhances *SureGuard* Xtra Herbicide activity on emerged weeds. Thorough spray coverage is necessary to maximize the postemergence activity of *SureGuard* Xtra Herbicide. When applied after weed germination, *SureGuard* Xtra Herbicide will provide preemergence and postemergence control of broadleaf weeds and grasses listed in Table 2. *Weeds Controlled or Suppressed by Residual Activity of SureGuard Xtra Herbicide.* If plant injury is a concern, use a spray shield to limit the exposure of trees to *SureGuard* Xtra Herbicide.

Postemergence control may be more effective with certain weed species, and may not control mature, stressed, or hardened off weeds that are not actively growing at the time of application.

IMPORTANT: Completely read and follow the label of any herbicides mixed with *SureGuard* Xtra Herbicide. When tank mixing *SureGuard* Xtra Herbicide with other herbicides always follow the most restrictive limitations and precautions on the label of any tank mix partner.

TOLERANT DECIDUOUS TREES, NON-BEARING FRUIT AND NON-BEARING NUT TREES

Established deciduous trees listed in Table 4. *Tolerant Deciduous Tree Species* have exhibited tolerance to *SureGuard* Xtra Herbicide but tolerance has not been evaluated on all varieties/cultivars or under all possible environmental conditions or cultural practices. The tolerance of deciduous trees listed in Table 4. *Tolerant Deciduous Tree Species* has also not been evaluated with all possible tank mixtures or sequential application of *SureGuard* Xtra Herbicide and other products.

Growers must not apply *SureGuard* Xtra Herbicide to deciduous trees at a commercial scale until first testing a small number of representative plants for tolerance to *SureGuard* Xtra Herbicide under local growing practices and environmental conditions. Monitor tested plants for four to six weeks for symptoms of possible injury or other effects. Testing *SureGuard* Xtra Herbicide on a small number of plants will help grower determine if *SureGuard* Xtra Herbicide can be used safely on a commercial scale.

TABLE 4. TOLERANT DECIDUOUS TREE SPECIES

COMMON NAME	SCIENTIFIC NAME
Apricot*	*Prunus* spp.
Ash	*Fraxinus* spp.
Birch	*Betula* spp.
Buckeye	*Aesculus* spp.
Cherry*	*Prunus* spp.
Chestnut	*Castanea* spp.
Citrus*	*Citrus* spp.
Dogwood	*Cornus* spp.
Eucalyptus	*Eucalyptus* spp.
Ginkgo	*Ginkgo* spp.
Hawthorn	*Crataegus* spp
Honeylocust	*Gleditsia* spp.
Larch	*Larix* spp.
Lilac	*Syringa* spp.
Maple**	*Acer* spp.
Mrytle, Crepe	*Lagerstroemia indica*
Oak	*Quercus* spp.
Poplar	*Populus* spp.
Peach*	*Prunus* spp.
Plum*	*Prunus* spp.
Pecan*	*Carya* spp.
Redbud	*Cercis Canadensis*
Sweetgum	*Liquidambar styraciflua*

(continued)

TABLE 4. TOLERANT DECIDUOUS TREE SPECIES (cont'd)

COMMON NAME	SCIENTIFIC NAME
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 sap or syrup.

DIRECTIONS FOR USE AROUND ESTABLISHED WOODY LANDSCAPE ORNAMENTALS

Apply *SureGuard* Xtra Herbicide as a directed spray to control weeds around the base of established woody ornamental plants in residential, commercial, recreational, and municipal landscapes including apartment complexes, condominiums, golf courses, office complexes, parks, parking areas, recreational sites, schools, and similar sites. Application of *SureGuard* Xtra Herbicide to ornamental plants is limited to directed sprays around well-established woody shrubs and trees such as azalea, euonymus, holly, and the conifers and deciduous trees listed in Tables 3 and 4. *SureGuard* Xtra Herbicide must only be applied by commercial licensed applicators. **DO NOT** apply *SureGuard* Xtra Herbicide within any enclosed structure.

SureGuard Xtra Herbicide provides residual and early postemergence control of susceptible grasses and broadleaf weeds, as well as additional mode of action to assist in the control of resistant weeds. The length of residual control is dependent on the rate applied, rainfall and temperature. Length of residual control will decrease as temperature and precipitation increase.

IMPORTANT: Contact of actively growing foliage with *SureGuard* Xtra Herbicide spray or spray drift may cause death of new growth, defoliation and/or leaf necrosis in trees and woody shrubs, and may kill herbaceous ornamental plant species including annual bedding plants or direct seeded annuals. Therefore, **DO NOT** apply *SureGuard* Xtra Herbicide over the top of ornamental plants growing in the landscape, and **DO NOT** allow *SureGuard* Xtra Herbicide spray to contact, drift or splash from soil onto the foliage, green stems, exposed roots or fruit of desirable plants. Avoid application of *SureGuard* Xtra Herbicide under conditions that favor drift of sprays onto desired ornamentals or turfgrass. Use spray shields that limit the plant exposure to *SureGuard* Xtra Herbicide when applying *SureGuard* Xtra

Herbicide near desirable plants. Note: *SureGuard* Xtra Herbicide is not systemic and if accidentally applied to actively growing foliage of established woody shrubs, plants will typically outgrow injury.

DO NOT apply *SureGuard* Xtra Herbicide to landscape ornamentals until plants have been actively growing for at least 60 days after transplanting, or for at least 60 days before ornamentals will be planted into treated areas.

PREEMERGENCE APPLICATION (NO WEEDS ARE PRESENT)
Apply 20 fl oz of *SureGuard* Xtra Herbicide per broadcast acre. Mix 1.4-2.8 tsp of *SureGuard* Xtra Herbicide per gallon of water, and apply 1 gallon of the resulting spray solution to 500-1,000 sq ft of landscape prior to weed germination (see calibration table for backpack sprayers). Apply *SureGuard* Xtra Herbicide to weed free soil, mulch or gravel surfaces. Moisture is necessary to activate *SureGuard* Xtra Herbicide on soil for residual weed control. When applied before weed germination, *SureGuard* Xtra Herbicide will control the broadleaf weeds and grasses listed in Table 2. *Weeds Controlled or Suppressed by Residual Activity of SureGuard Xtra Herbicide.*

Established landscape ornamentals have shown tolerance to *SureGuard* Xtra Herbicide **only** when applied to the soil at the base of the plant. For maximum plant safety when using around desirable ornamentals, direct applications of *SureGuard* Xtra Herbicide to the soil and leave a sufficient untreated buffer to ensure spray solution does not contact desired plants.

POSTEMERGENCE APPLICATION (WEEDS ARE PRESENT)
Mix 1.4-2.8 tsp of *SureGuard* Xtra Herbicide per gallon of water, and apply 1 gallon of the resulting spray solution per 500-1,000 sq ft of landscape (see calibration chart for backpack sprayers). Tank mixing *SureGuard* Xtra Herbicide with glyphosate or glufosinate will increase the spectrum of postemergence weed control over *SureGuard* Xtra Herbicide alone, provide faster postemergence weed control than glyphosate or glufosinate alone, and provide pre and postemergence control of the broadleaf weeds and grasses listed in Table 2. *Weeds Controlled or Suppressed by Residual Activity of SureGuard Xtra Herbicide.*

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

IMPORTANT: When tank mixing *SureGuard* Xtra Herbicide with other products, always follow the most restrictive use conditions on either label.

DIRECTIONS FOR USE TO MAINTAIN BARE GROUND IN NON-CROP AREAS, IN ORNAMENTAL NURSERIES AND ORNAMENTAL LANDSCAPES

SureGuard Xtra 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 *SureGuard* Xtra Herbicide to sites including:

- Bare ground areas in and around buildings and other structures
- Bare ground areas along fence rows
- Gravel surfaces and driveways
- Ground matting and gravel pads prior to the addition of containerized plants

IMPORTANT: Follow all applicable directions as outlined above under General Information. See Table 2. *Weeds Controlled or Suppressed by Residual Activity of SureGuard Xtra Herbicide* for a list of grasses and broadleaf weeds controlled by *SureGuard* Xtra Herbicide.

SureGuard Xtra Herbicide offers residual and early postemergence control of susceptible broadleaf and grass weeds as well as an additional mode of action to assist in the control of weeds resistant to other modes of action. *SureGuard* Xtra Herbicide can be tank mixed with the herbicides listed in Table 4. *Tolerant Deciduous Trees Species* for increased residual or postemergence control. The length of residual control is dependent on the rate applied as well as on rainfall and temperature conditions. Length of residual control will decrease as temperature and precipitation increase.

PREEMERGENCE APPLICATION
Apply 20 fl oz of *SureGuard* Xtra Herbicide per broadcast acre as a preemergence application. Make the preemergence (to weed emergence) applications of *SureGuard* Xtra Herbicide to a weed-free soil surface. Preemergence applications of *SureGuard* Xtra Herbicide must be completed prior to weed emergence. Moisture is necessary to activate *SureGuard* Xtra Herbicide on soil for residual weed control. Dry weather following application of *SureGuard* Xtra Herbicide may reduce effectiveness. However, when adequate moisture is received after dry conditions, *SureGuard* Xtra Herbicide will control susceptible germinating weeds.

POSTEMERGENCE APPLICATION
Apply 20 fl oz of *SureGuard* Xtra Herbicide per broadcast acre plus an adjuvant (0.25% v/v non-ionic surfactant). The addition of an adjuvant enhances *SureGuard* Xtra Herbicide activity on emerged weeds. Thorough spray coverage is necessary to maximize the postemergence activity of *SureGuard* Xtra Herbicide. Emerged weeds are controlled postemergence with *SureGuard* Xtra Herbicide, however, translocation of *SureGuard* Xtra Herbicide within a weed is limited, and control is affected by spray coverage and by the addition of an adjuvant. The most effective postemergence weed control with *SureGuard* Xtra Herbicide occurs when applied in combination with a surfactant to weeds less than 2 inches in height. Use a tank mix partner in combination with *SureGuard* Xtra Herbicide for the postemergence control of weeds larger than 2 inches. Some tank mix partners are listed in Table 5. *Suggested Tank Mix Combinations for Non-Selective Vegetation Control.*

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

Table 5 Tank Mix Combinations For Non-Selective Vegetation Control

clethodim	glufosinate	prodiamine
glyphosate	pendimethalin	simazine

STORAGE AND DISPOSAL

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

STORAGE
Keep pesticide in original container.
Store in a cool, dry, secure place.
DO NOT put formulation or dilute spray solution into food or drink containers.
DO NOT contaminate food or foodstuffs.
DO NOT store or transport near feed or food.
Not for use or storage in or around the home.
For help with any spill, leak, fire or exposure involving this material, call day or night **(800) 892-0099**.

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

CONTAINER HANDLING
Nonrefillable container. **DO NOT** reuse or refill this container. Clean container promptly after emptying. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or other procedures allowed by State and local authorities.

Manufactured for:
Valent U.S.A. LLC
P.O. Box 5075
San Ramon CA 94583
Made in U.S.A.
Form 2453-A
EPA Reg. No. 59639-237
EPA Est. 228-IL-1Ⓚ, 228-IL-2Ⓐ, 39578-TX-1Ⓒ, 5481-ID-1Ⓜ, 5905-GA-1Ⓒ, 62171-MS-1Ⓜ, 62171-MS-3Ⓟ, 62171-MS-4, 67545-AZ-1Ⓥ, 67997-IA-1, 67997-IA-7, 70815-GA-1Ⓥ, 70815-GA-2Ⓒ, 70815-GA-3, 71764-NC-1, 86555-MO-1Ⓢ, 89332-GA-2Ⓒ, 97524-GA-1Ⓩ
Superscript is first letter of lot number.
059639-00237.20221103.V10452_3.04SC.Amend

Information contained in this booklet is accurate at the time of printing. Since product testing is a continuous process, please read and follow the directions on the product label for the most current directions and precautionary statements.

Always check with your state to verify state registration status or call 800-89-VALENT (898-2536).

For state registration and/or supplemental labels, please call or visit us online.

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Always read and follow label instructions.

 Date 8/24/23