



BroadStar®

H E R B I C I D E



PROVIDES PREEMERGENCE WEED CONTROL IN:

- CONTAINER GROWN ORNAMENTALS
- FIELD GROWN ORNAMENTALS INCLUDING CHRISTMAS TREE PLANTATIONS
- LANDSCAPE ORNAMENTALS
- NON-BEARING FRUIT AND NUT TREES AND VINES
- BARE GROUND NON-CROP AREAS

Active Ingredient	By Wt
*Flumioxazin	0.25%
Other Ingredients.....	99.75%
Total	100.00%

*N-(7-fluoro-3,4-dihydro-3-oxo-4-prop-2-ynyl-2H-1,4-benzoxazin-6-yl)cyclohex-1-ene-1,2-dicarboxamide

BroadStar® Herbicide is a granule containing 0.25% active ingredient.

EPA Reg. No. 59639-128
EPA Est. 39578-TX-1

**KEEP OUT OF REACH OF CHILDREN
CAUTION**

SEE NEXT PAGE FOR ADDITIONAL PRECAUTIONARY STATEMENTS.

NET WEIGHT 50 POUNDS

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.
- 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 center or doctor for treatment advice.
- If inhaled:** Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or doctor for further treatment advice.
- If swallowed:** Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person.

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 & DOMESTIC ANIMALS CAUTION

Harmful if absorbed through the skin. Avoid contact with skin, eyes or clothing. Avoid breathing dust and spray mist. 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 including polyethylene or polyvinyl chloride, shoes and socks.

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

USER SAFETY RECOMMENDATIONS

Users should:

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

ENVIRONMENTAL HAZARDS:

This product is toxic to aquatic invertebrates. Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Do not apply where runoff is likely to occur. Do not apply when weather conditions favor drift from treated areas. Do not contaminate water when disposing of equipment washwaters or rinsate.

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

Under some conditions this product may have a potential to run off to surface water or adjacent land. Where possible, use methods which reduce soil erosion, including no till, limited till and contour plowing; these methods also reduce pesticide runoff. Use of vegetation filter strips along rivers, creeks, streams, wetlands or on the downhill side of fields where runoff could occur will minimize water runoff is advised.

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 any waterproof material, shoes plus socks.

NON-AGRICULTURAL USE REQUIREMENTS

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

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

Do not enter or allow others to enter treated areas until dust has settled.

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

IMPORTANT: Read the entire Label including this Disclaimer, Risks of Using this Product, Limited Warranty, 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. These risks include, but are not limited to, injury to plants and crops to which this product is applied, lack of control of the target pests or weeds, resistance of the target pest or weeds to this product, injury caused by drift, and injury to rotational crops caused by carryover in the soil. 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. The Buyer should be aware that these inherent unintended risks may reduce the harvested yield of the crop in all or a portion of the treated acreage, or otherwise affect the crop such that additional care, treatment and expense are required to take the crop to harvest. 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.

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. 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.

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LIMITED WARRANTY

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 AND AS SET FORTH ABOVE, VALENT MAKES NO OTHER WARRANTIES, EITHER 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. The limitation includes, but is not limited to, loss of yield on all or any portion of the treated acreage, increased care, treatment or other expenses required to take the crop to harvest, increased finance charges or altered finance ratings, emotional or mental distress and/or exemplary damages. 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 latter, 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 Disclaimer, Risks of Using This Product, Limited Warranty 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 applicator advisor, to the extent allowed by applicable law.

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

Resistance Management

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

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

- Rotate the use of *BroadStar* Herbicide or other Group 14 herbicides within a growing season sequence or among growing seasons with different herbicide groups that control the same weeds in a field.
- Use tank mixtures 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. Scout after herbicide application to monitor weed populations for early signs of resistance development. Indicators of possible herbicide resistance include: (1) failure to control a weed species normally controlled by the herbicide at the dose applied, especially if control is achieved on adjacent weeds; (2) a spreading patch of non-controlled plants of a particular weed species; (3) surviving plants mixed with controlled individuals of the same species. If resistance is suspected, prevent weed seed production in the affected area by an alternative herbicide from a different group or by a mechanical method such as 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

BroadStar Herbicide is a selective preemergence herbicide that provides extended residual control of a wide variety of annual broadleaf and grassy weeds. *BroadStar* Herbicide is labeled for use in containerized and field grown (in-ground) woody, ornamental shrubs and trees, ground covers and non-bearing fruit and nut trees that are grown in nurseries, conifer plantations and ornamental landscapes. *BroadStar* Herbicide is also labeled to maintain bare ground in non-crop areas such as apartment complexes, gravel surfaces, ground mats, golf courses, office complexes, parks, parking areas, recreational sites, schools, sidewalks.

BroadStar 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. *BroadStar* Herbicide has limited postemergent activity against newly germinated seedlings of some weed species, but to ensure optimal control apply before weed germination.

Most hardy woody ornamental shrubs, trees, and ground covers are not susceptible to *BroadStar* Herbicide, so long as the product is applied in accordance with the label. Use caution when applying to plants that are producing a new flush of growth because herbicide may injure tender, newly formed leaves if granules remain in contact with leaf surfaces. *BroadStar* Herbicide may cause leaf spotting on some species if granules are allowed to remain in contact with leaf surfaces, especially on new flush or on foliage that is wet at the time of application. However, subsequent plant growth is generally unaffected. *BroadStar* Herbicide may injure some species if not applied in accordance with the label, and may also injure ornamental species that are not listed on the label. Therefore, read all label precautions and restrictions before applying *BroadStar* Herbicide to ornamental plants.

Restrictions and Limitations

- **DO NOT** apply more than 150 lb (0.375 lb ai) per acre in a single application.
- **DO NOT** apply more than 300 lb (0.75 lb ai) per acre per year.
- **DO NOT** treat the same plants more than one time every 8 weeks and no more than two times per year.
- **DO NOT** apply by air.
- **DO NOT** apply to moist or wet foliage.
- **DO NOT** apply when winds are gusty or above 10 mph.
- **DO NOT** apply to plants that are under moisture stress or stress from insects, diseases, animals, winter injury, planting shock or any other stresses.
- **DO NOT** apply to plants grown from seed until at least one year after seed germination, unless a product safety test is first conducted on a small number of plants.
- **DO NOT** apply to plants whose leaves channel the herbicide granules to the leaf base.
- **DO NOT** apply to herbaceous bedding plants or areas where bedding plants will be planted or transplanted within three months following application.
- **DO NOT** apply to plants while in propagation.
- **DO NOT** apply to liners that are in pots less than 4 inches in diameter.
- **DO NOT** apply to recently transplanted liners with root balls that are less than 4 inches in diameter until liners have been actively growing for at least 6 weeks after transplanting.

- **DO NOT** incorporate product into soil or potting media.
- **DO NOT** apply in an enclosed greenhouse structure.
- **DO NOT** graze or feed livestock forage cut from treated areas.

Turfgrass Adjacent to Ornamental Plantings

BroadStar Herbicide may injure actively growing turfgrass, especially if wet at time of application. Therefore, **DO NOT** apply *BroadStar* Herbicide directly to turfgrass and minimize drift of *BroadStar* Herbicide onto turfgrass during application to ornamentals.

Preemergence Application

BroadStar Herbicide provides effective preemergence control of weeds listed in Table 4. For optimal preemergence control, apply *BroadStar* Herbicide to clean, weed free soil or mulch before weed seeds germinate. Disturbing soil surfaces after application may reduce herbicide efficacy. Remove existing weeds, weed residues and trash before applying *BroadStar* Herbicide. Approximately 1/2 to 3/4 inch of rainfall, overhead sprinkler irrigation or hand irrigation is required to activate *BroadStar* Herbicide. Inadequate irrigation or rainfall following application may reduce effectiveness of *BroadStar* Herbicide. If adequate soil moisture is maintained following application, *BroadStar* Herbicide provides 8 to 12 weeks of preemergent control of labeled weeds, except under unusual environmental conditions (excessive rainfall, irrigation or temperature). Control is most persistent under cooler temperatures.

Application Instructions

Apply *BroadStar* Herbicide with clean, well maintained drop or rotary type granular application equipment. Calibrate application equipment prior to use according to manufacturer's guidelines. Refer to Table 1 for calibration of hand cranked rotary spreaders. Check frequently to be sure equipment is working properly and distributing granules uniformly. Avoid skips and overlaps, as poor weed control or crop injury may occur. Clean equipment before adding *BroadStar* Herbicide to ensure that no residue from the previous operation remains. Some pesticides are active at very trace quantities and can cause injury when applied to susceptible plants.

- Remove any existing weeds before applying *BroadStar* Herbicide.
- **Apply to dry foliage only.** To test for moisture, rub hands over plant foliage.
- Irrigate plants within 1 hour after application with 1/2 to 3/4 inch of water to activate the herbicide and remove any remaining herbicide granules. If herbicide granules are allowed to remain on plant foliage for an extended period, herbicide residues may be released and cause leaf spotting on some sensitive ornamental species, especially on new flush.
- If granules remain on foliage following application, and plants will not be irrigated for more than one hour after application, lightly brushing or blowing plants will reduce the potential for plant injury.

Application Techniques

Apply *BroadStar* Herbicide with a properly calibrated drop or rotary type spreader that will ensure accurate, even particle distribution.

- When using a drop type spreader, a splashboard mounted under the hopper will provide more even granule distribution.
- When using a hand-held or push type rotary applicator, including a whirlybird or cyclone unit, walk and turn the crank at a constant rate of speed.
- Use a hand shaker to treat small numbers of plants, or areas that are difficult to reach with a whirlybird or cyclone spreader. Construct hand shakers by punching holes in the lid of a small plastic container. Calculate amount of *BroadStar* Herbicide needed

to treat area, place this amount in shaker and apply evenly over plants. Refer to Table 3 for amounts needed to treat individual containers.

Drift Management

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

- Make applications when the wind velocity favors on-target product deposition. Apply only when the wind speed is less than or equal to 10 mph. For all applications, wind speed must be measured adjacent to the application site on the upwind side, immediately prior to application.
- All application equipment must be properly maintained and calibrated using appropriate carriers.

CALIBRATION OF HERBICIDE APPLICATION EQUIPMENT

BroadStar Herbicide is a very active herbicide and can injure some plants if applied at excessive rates. The user is responsible for accurately calibrating herbicide application equipment so that *BroadStar* Herbicide is applied at the labeled rate of 150 lb per acre. The user assumes responsibility for any plant damage or other liability resulting from application of *BroadStar* Herbicide at excessive rates.

Hand Cranked Spreaders

The application rate pounds per acre of *BroadStar* Herbicide with hand cranked spreaders will depend on the width of the plant bed to be treated, the operator's walking speed, the speed at which the operator turns the crank and the spreader setting (opening). The walking and cranking speed will vary among individual operators. Therefore, hand cranked spreaders must be calibrated for individual operators in order to apply *BroadStar* Herbicide at the labeled rate of 150 lb per acre.

Use the spreader settings in Table 1 as a starting point when calibrating hand cranked spreaders for application of *BroadStar* Herbicide. These settings assume a walking speed of 3 mph, a cranking speed of 60 revolutions per minute (rpm) and that the operator makes one pass down each aisle between each plant bed.

To more precisely calibrate hand cranked spreaders for application of *BroadStar* Herbicide by individual operators, first select a test area that does not have plants present. Calculate the number of square feet in the test area by multiplying the length by the width (in feet) of the area to be treated. Include aisle space between beds when determining length and width of the test area. Then calculate the amount of *BroadStar* Herbicide needed to treat the test area by multiplying the number of square feet in the test area by 150, and dividing this result by 43,560. If the hand cranked spreader is listed in Table 1, set the spreader opening to the position indicated for the appropriate bed width. Place *BroadStar* Herbicide calibration trays in test area. Weigh out calculated amount of *BroadStar* Herbicide, place in the spreader, and apply to the test area at applicator's standard walking and cranking speed. Adjust spreader opening if measured amount of *BroadStar* Herbicide does not evenly cover the test area and/or if calibration trays indicate that too much or too little *BroadStar* Herbicide has been applied.

Example: there is room for six plant beds in the test area that will be treated with *BroadStar* Herbicide. Beds are 60 feet in length, six feet wide, and are separated by two-foot aisles. Therefore, the width of test area (i.e., distance between outside of Bed 1 and outside of Bed 6) is 46 ft, and the number of square feet in the test area = 60 ft x 46 ft = 2,760 square feet. Amount of *BroadStar* Herbicide needed to treat the test area = 2,760 x 150/43,560 = 9.5 pounds.

Table 1. SETTINGS (PORT OPENING) FOR HAND CRANKED ROTARY SPREADERS

Spreader	One Sided Operation		Two Sided Operation	
	Bed Width (ft)	Spreader Setting	Bed Width (ft)	Spreader Setting
Spyker 75	4	2.5	4	3.0
	6	3.0	6	3.5 - 4.0
	8	3.5	8	4.5
	10	3.5 - 4.0	10	4.5 - 5.0
	12	4.0	12	5.0 - 6.0
Warren T-7 11	4	—	4	4.0
	6	3.5 - 4.0	6	4.5
	8	4.0 - 4.5	8	5.0 - 5.5
	10	4.5	10	6.0
	12	5.0	12	—
Earthway 3100	4	8	4	8 - 10
	6	10 - 12	6	10
	8	10 - 12	8	10 - 12
	10	12	10	12
	12	12	12	12 - 14
Solo 421S	4	1	4	2
	6	1 - 2	6	3
	8	1 - 2	8	4
	10	2	10	5 - 6
	12	3 - 4	12	—

Table 2. WEIGHT TO VOLUME CONVERSION TABLE

Rate	Amount/1000 sq ft		Amount/100 sq ft	
Pounds/Acre	Pounds	Quarts	Pounds	Cups
150	3.4	2.4	0.34	1.0

One pound of *BroadStar* Herbicide = 0.7 quarts = 2.8 cups

Application to Individual Containers

BroadStar Herbicide may be applied to the surface of individual containers, but only at a rate that is equivalent to the amount of product that would land on the media surface of an individual container if broadcast at 150 lb per acre. Use the conversions in Table 3 to determine how much *BroadStar* Herbicide to apply to an individual container, and then use a hand shaker to evenly distribute over the media surface.

Table 3. APPLICATION AMOUNTS FOR INDIVIDUAL CONTAINERS
(equivalent to 150 lb/A)

Pot Diameter (inches)	Gram(s) <i>BroadStar</i> Herbicide/ pot	Teaspoon(s) <i>BroadStar</i> Herbicide/ pot
4	0.14	1/28
5	0.21	1/18
6	0.31	1/12
7	0.42	1/9
8	0.55	1/7
9	0.69	1/6
10	0.85	1/5
11	1.03	1/4
12	1.23	1/3
13	1.44	1/3
14	1.67	1/2
15	1.92	1/2
16	2.18	5/8
17	2.46	5/8
18	2.79	3/4
19	3.08	3/4
20	3.41	7/8
21	3.76	1
22	4.12	1
23	4.51	1-1/4
24	4.91	1-1/4
25	5.33	1-1/2
26	5.76	1-1/2
27	6.21	1-3/4
28	6.68	1-3/4
29	7.17	2
30	7.67	2
31	8.19	2
32	8.73	2-1/4
33	9.28	2-1/2
34	9.85	2-1/2
35	10.44	2-3/4
36	11.05	3
37	11.67	3
38	12.31	3-1/4
39	12.96	3-1/2
40	13.64	3-1/2
41	14.33	3-3/4
42	15.03	4

One level teaspoon of *BroadStar* Herbicide weighs approximately 3.8 grams

One heaping teaspoon of *BroadStar* Herbicide weighs approximately 5.9 grams

One level tablespoon of *BroadStar* Herbicide weighs approximately 11.2 grams

ORNAMENTAL PLANT INFORMATION

Most woody ornamental plants are not susceptible to *BroadStar* Herbicide when the product is applied according to the label. Prior to applying on a commercial scale, test a small number of plants grown under similar growing conditions to ensure crop safety. Ensure that test plants are actively growing at the time of application, and examined for 4 to 8 weeks for symptoms of plant injury. If test plants are dormant at the time of application, or enter dormancy within 8 weeks after application, continue the injury evaluation until after plants break dormancy in the spring.

Mild leaf spotting is the most common symptom of *BroadStar* Herbicide injury on ornamental plants, and usually appears within 1 to 2 days after application. Leaf spotting is most likely to occur when *BroadStar* Herbicide is applied to new flush that is wet at time of application. In order to minimize the risk of leaf spotting, completely read and follow the Application Instructions section of the label.

If NOT applied in accordance with the label, *BroadStar* Herbicide may cause unacceptable injury to some ornamental plant species.

Treatment of Ornamental Plant Species Labeled as Sensitive

BroadStar Herbicide can cause significant injury to woody ornamental plants listed in Table 5. **The user assumes responsibility for any plant damage that results from the application of *BroadStar* Herbicide to plants listed as sensitive.**

Treatment of Ornamental Plant Species NOT Listed on Table 6

Prior to applying *BroadStar* on non-listed species, test a small number of plants grown under similar growing conditions to ensure crop safety. **The user assumes responsibility for any plant damage that results from the application of *BroadStar* Herbicide to non-listed plant species.**

Treatment of Ornamental Plant Species with Wet Foliage

When *BroadStar* Herbicide is applied to dry plants, most *BroadStar* Herbicide granules will bounce or roll off of foliage before releasing herbicide residues. However, if *BroadStar* Herbicide is applied to plants that are wet from dew, irrigation water or rainfall, some granules may stick to foliage and release herbicide residues. Herbicide release onto wet foliage can injure some plant species.

Treatment of Recently Transplanted Liners

Under certain conditions, *BroadStar* Herbicide can cause significant injury to recently transplanted liners of some plant species that are not significant when more established (i.e., have formed a well-developed root system). Injury to recently transplanted liners is most likely when *BroadStar* Herbicide is applied to smaller liners (less than one gallon container size), is applied at above labeled rates, and is applied before potting media has been settled by irrigation or rainfall. Therefore, **DO NOT apply *BroadStar* Herbicide to recently transplanted liners with root balls less than 4 inches in diameter until plants have been actively growing for at least 6 weeks after transplanting and have established a vigorous root system.**

Treatment of Herbaceous Plants, Tropical Shrubs and Foliage Plants

BroadStar Herbicide will severely injure many annual bedding plants (e.g., Petunia), and some herbaceous perennials (e.g., Hosta), tropical shrubs and foliage plants. Therefore, **DO NOT apply *BroadStar* Herbicide over-the-top of herbaceous annual bedding plants, herbaceous perennials, tropical shrubs or foliage plants until after the user**

has confirmed the product's safety on a small number of plants grown under standard growing conditions.

Treatment of Seedling Trees and Shrubs

BroadStar Herbicide may injure seedlings of some trees and shrubs if applied before seedlings have established a vigorous root system. Therefore, **DO NOT** apply *BroadStar* Herbicide to tree and shrub seedlings within one year after germination, unless the user has first confirmed the product's safety on a small number of plants grown under standard growing conditions.

DIRECTIONS FOR USE IN CONTAINER, FIELD OR LANDSCAPE GROWN ORNAMENTAL SHRUBS, TREES, CHRISTMAS TREES, GROUND COVERS, NON-BEARING FRUIT AND NUT TREES, VINES, AND BARE GROUND NON-CROP AREAS

In residential and commercial landscape, *BroadStar* Herbicide must only be applied by commercial-licensed applicators. *BroadStar* Herbicide applied at 150 lb per acre (0.375 lb ai/A) (approximately 3.5 lb per 1000 sq ft) is an effective herbicide treatment for control of the weeds listed in Table 4 when applied to established container, field or landscape grown shrubs, trees, Christmas trees, ground covers, non-bearing fruit and nut trees, and vines. Non-bearing fruit and nut trees including citrus, apples, pears, peaches, etc., are defined as plants that will not bear fruit for at least one year after application. *BroadStar* Herbicide may also be applied at 150 lb/A (0.375 lb ai/A) to maintain bare ground in non-crop areas in apartment complexes, gravel surfaces, ground mats, golf courses, office complexes, parks, parking areas, recreational sites, schools, sidewalks and other similar sites. Apply *BroadStar* Herbicide in these settings before weeds germinate.

READ AND FOLLOW THE ENTIRE PRODUCT INFORMATION SECTION OF THIS LABEL BEFORE APPLYING.

Precautions for Landscape Application

BroadStar Herbicide can cause contact injury to foliage of landscape ornamentals if applied over the top of new flush, and especially if foliage is wet. To minimize crop injury potential, apply *BroadStar* Herbicide to dormant or non-actively growing landscape plants and avoid application to new flush.

Restrictions

- **DO NOT** apply more than 150 lb (0.375 lb ai) per acre in a single application.
- **DO NOT** apply more than 300 lb (0.75 lb ai) per acre per year.
- **DO NOT** treat the same plants more than one time every 8 weeks and no more than two times per year.
- **DO NOT** apply to foliage that is wet due to rainfall, irrigation or dew.
- **DO NOT** apply over the top of ornamental plants not listed on this label until susceptibility is evaluated on a small number of plants grown under standard growing conditions.
- **DO NOT** apply to plants whose leaves channel the herbicide granules to the leaf base.
- **DO NOT** apply to plants grown from seed until at least one year after seed germination, unless first tested on a small number of plants.
- **DO NOT** apply to bedding plants or in areas where bedding plants will be planted or transplanted within three months following application.

- **DO NOT** apply to recently transplanted ornamentals (including those ornamental species listed on Table 6) until such plants have been actively growing for at least 6 weeks after transplanting and have established a vigorous root system.

WEEDS CONTROLLED

When applied at 150 lb/A (0.375 lb ai/A) before weeds germinate, *BroadStar* Herbicide will provide good to excellent preemergent control of the following annual grass and broadleaf weeds.

Table 4. WEEDS CONTROLLED

Common Name	Scientific Name
Alyssum, Hoary	<i>Berteroa incana</i>
Amaranth	
Palmer	<i>Amaranthus palmeri</i>
Spiny	<i>Amaranthus spinosus</i>
Barnyardgrass	<i>Echinochloa crus-galli</i>
Beggarweed, Florida	<i>Desmodium hirsutum</i>
Bittercress, Hairy	<i>Cardamine tortuosa</i>
Bluegrass, Annual	<i>Poa annua</i>
Burclover, California	<i>Medicago polymorpha</i>
Carpetweed	<i>Mollugo verticillata</i>
Chickweed	
Common	<i>Stellaria media</i>
Mouseear	<i>Cerastium vulgatum</i>
Crabgrass	
Large	<i>Digitaria sanguinalis</i>
Smooth	<i>Digitaria ischaemum</i>
Southern	<i>Digitaria ciliaris</i>
Croton, Tropic	<i>Croton glandulosus</i> var. <i>septentrionalis</i>
Dandelion	<i>Taraxacum officinale</i>
Dayflower, Bengal	<i>Commelina benghalensis</i>
Dogfennel	<i>Eupatorium capillifolium</i>
Doveweed	<i>Murdannia nudiflora</i>
Eclipta	<i>Eclipta prostrata</i>
Filaree, Redstem	<i>Erodium cicutarium</i>
Foxtail	
Bristly	<i>Setaria verticillata</i>
Giant	<i>Setaria faberi</i>
Green	<i>Setaria viridis</i>
Yellow	<i>Setaria glauca</i>
Galinsoga, Hairy	<i>Galinsoga ciliata</i>
Geranium, Carolina	<i>Geranium carolinianum</i>
Goosegrass, Indian	<i>Eleusine indica</i>
Groundsel, Common	<i>Senecio vulgaris</i>
Henbit	<i>Lamium amplexicaule</i>
Horseweed	<i>Conyza canadensis</i>
Indigo, Hairy	<i>Indigofera hirsuta</i>
Jimsonweed	<i>Datura stramonium</i>
Kochia	<i>Kochia scoparia</i>
Lady's Thumb	<i>Polygonum persicaria</i>

(continued)

Table 4. WEEDS CONTROLLED (continued)

Common Name	Scientific Name
Lambsquarters, Common	<i>Chenopodium album</i>
Liverwort, Common*	<i>Marchantia polymorpha</i>
Lovegrass, California	<i>Eragrostis diffusa</i>
Mallow	
Common	<i>Malva neglecta</i>
Little	<i>Malva parviflora</i>
Venice	<i>Hibiscus trionum</i>
Mayweed	<i>Anthemis cotula</i>
Morningglory	
Entireleaf	<i>Ipomoea hederacea</i> var. <i>integriuscula</i>
Ivyleaf	<i>Ipomoea hederacea</i>
Smallflower	<i>Jacquemontia tamnifolia</i>
Tall	<i>Ipomoea purpurea</i>
Moss species	<i>Bryum</i> spp.
Mulberry Weed	<i>Fatua villosa</i>
Nightshade	
Black	<i>Solanum nigrum</i>
Eastern Black	<i>Solanum ptycanthum</i>
Panicum	
Fall	<i>Panicum dichotomiflorum</i>
Texas	<i>Panicum texanum</i>
Parsley-Piert	<i>Alchemilla arvensis</i>
Pearlwort, Birdseye	<i>Sagina procumbens</i>
Pennycress, Field	<i>Thlaspi arvense</i>
Phyllanthus, Long-stalk	<i>Phyllanthus tenellus</i>
Pigweed	
Prostrate	<i>Amaranthus blitoides</i>
Redroot	<i>Amaranthus retroflexus</i>
Smooth	<i>Amaranthus hybridus</i>
Tumble	<i>Amaranthus albus</i>
Pineapple Weed	<i>Matricaria matricarioides</i>
Plantain	
Broadleaf	<i>Plantago major</i>
Buckhorn	<i>Plantago lanceolata</i>
Puncturevine	<i>Tribulus terrestris</i>
Purslane, Common	<i>Portulaca oleracea</i>
Pusley, Florida	<i>Richardia scabra</i>
Ragweed	
Common	<i>Ambrosia artemisiifolia</i>
Giant	<i>Ambrosia trifida</i>
Redmaids	<i>Calandrinia ciliata</i>
Rocket, Yellow	<i>Barbarea vulgaris</i>
Senna, Coffee	<i>Cassia occidentalis</i>
Sesbania, Hemp	<i>Sesbania exaltata</i>
Shepherd's-purse	<i>Capsella bursa-pastoris</i>
Sida, Prickly (Teaweed)	<i>Sida spinosa</i>
Signalgrass	<i>Brachiaria platyphylla</i>

(continued)

*Will provide some postemergent control of liverwort which will be enhanced at higher temperatures and light levels.

Table 4. WEEDS CONTROLLED (continued)

Common Name	Scientific Name
Smartweed, Pennsylvania	<i>Polygonum pensylvanicum</i>
Sowthistle, Annual	<i>Sonchus oleraceus</i>
Spurge	
Prostrate	<i>Euphorbia prostrata</i>
Spotted	<i>Euphorbia maculata</i>
Starbur, Bristly	<i>Acanthospermum hispidum</i>
Thickhead	<i>Crassocephalum crepidioides</i>
Thistle	
Canada	<i>Cirsium arvense</i>
Russian	<i>Salsola iberica</i>
Velvetleaf	<i>Abutilon theophrasti</i>
Waterhemp	
Common	<i>Amaranthus rudis</i>
Tall	<i>Amaranthus tuberculatus</i>
Woodsorrel, Common Yellow	<i>Oxalis stricta</i>

SENSITIVE ORNAMENTAL SPECIES

Injury has been reported after application of *BroadStar* Herbicide to the plants listed in Table 5, especially when applied to small, recently transplanted liners. **DO NOT** apply *BroadStar* Herbicide to plants listed in Table 5. In some cases, only specific cultivars are listed because injury has not been reported on other cultivars of this species (see Tables 6-8).

Table 5. SENSITIVE SPECIES

Common Name	Scientific Name
Butterfly Bush	<i>Buddleia davidii</i>
Clethra, Summersweet	<i>Clethra alnifolia</i>
Deutzia, Slender	<i>Deutzia gracilis</i> "Nikko"
Holly, Winterberry	<i>Ilex verticillata</i>
Hydrangea	<i>Hydrangea</i> spp.
Nandina	<i>Nandina domestica</i> "Firepower"
Plumbago, Cape	<i>Plumbago auriculata</i>
Spirea, Japanese	<i>Spiraea japonica</i>
Wax Myrtle, Southern (seedling)	<i>Myrica cerifera</i>

ORNAMENTAL SPECIES

Injury other than temporary leaf spotting has not been observed on species listed in Tables 6-8 when *BroadStar* Herbicide was applied at the labeled rate to established plants with a well-developed root system. Some species listed in Tables 6-8 may be injured if *BroadStar* Herbicide is applied before transplanted liners have established a well-developed root system (see Restrictions and Limitations section in this label for complete details). *BroadStar* Herbicide has not been applied to all cultivars of listed species, or under all environmental conditions and cultural practices under which these species could be grown. Prior to applying on a commercial scale, test on a small number of plants grown under similar growing conditions to ensure crop safety.

Table 6. TREES INCLUDING CHRISTMAS TREES

Common Name	Scientific Name
Arborvitae	
American	<i>Thuja occidentalis</i>
Giant	<i>Thuja plicata</i>
Oriental	<i>Thuja orientalis</i>
Ash	
Green	<i>Fraxinus pennsylvanica</i>
White	<i>Fraxinus americana</i>
Birch	<i>Betula</i> spp.
Cedar, Deodora	<i>Cedrus deodora</i>
Crabapple, Flowering	<i>Malus</i> spp.
Cottonwood	<i>Populus deltoides</i>
Cypress	
Italian	<i>Cupressus sempervirens</i>
Templehof	<i>Chamaecyparis obtusa</i>
Dogwood, Florida	<i>Cornus florida</i>
Elm, Chinese	<i>Ulmus parvifolia</i>
Eucalyptus	
Silver Dollar	<i>Eucalyptus cinerea</i>
Red Gum	<i>Eucalyptus camaldulensis</i>
Ficus	<i>Ficus benjamina</i>
Fir	
Balsam	<i>Abies balsamea</i>
Douglas	<i>Pseudotsuga menziesii</i>
Fraser	<i>Abies fraseri</i>
Grand	<i>Abies grandis</i>
Korean	<i>Abies koreana</i>
Noble	<i>Abies procera</i>
Ginkgo	<i>Ginkgo biloba</i>
Hemlock	
Eastern	<i>Tsuga canadensis</i>
Mountain	<i>Tsuga mertensiana</i>
Western	<i>Tsuga heterophylla</i>
Lilac, Hungarian	<i>Syringa josikaea</i>
Magnolia, Lily	<i>Magnolia lilliflora</i>

(continued)

ORNAMENTAL SPECIES (continued)

Table 6. TREES INCLUDING CHRISTMAS TREES (continued)

Common Name	Scientific Name
Maple	
Flame	<i>Acer ginnala</i>
Flowering	<i>Abutilon hybridum</i>
Japanese	<i>Acer palmatum</i>
Red	<i>Acer rubrum</i>
Striped	<i>Acer pensylvanicum</i>
Mulberry, White	<i>Morus alba</i>
Oak	
Bear	<i>Quercus ilicifolia</i>
Live	<i>Quercus virginiana</i>
Pin	<i>Quercus palustris</i>
Red	<i>Quercus rubra</i>
Willow	<i>Quercus phellos</i>
Pine	
Eastern White	<i>Pinus strobus</i>
Jack	<i>Pinus banksiana</i>
Lacebark	<i>Pinus bungeana</i>
Loblolly	<i>Pinus taeda</i>
Lodgepole	<i>Pinus contorta</i>
Longleaf	<i>Pinus palustris</i>
Mugo	<i>Pinus mugo</i>
Ponderosa	<i>Pinus ponderosa</i>
Sand	<i>Pinus clausa</i>
Scotch	<i>Pinus sylvestris</i>
Shortleaf	<i>Pinus echinata</i>
Slash	<i>Pinus elliottii</i>
Virginia	<i>Pinus virginiana</i>
Plum, Beach	<i>Prunus maritima</i>
Podocarpus	<i>Podocarpus</i> spp.
Poplar	<i>Populus</i> spp.
Red Cedar, Eastern	<i>Juniperus virginiana</i>
Redbud	<i>Cercis canadensis</i>
Spruce	
Blue	<i>Picea pungens</i>
Dwarf Alberta	<i>Picea glauca conica</i>
Norway	<i>Picea abies</i>
Serbian	<i>Picea omorika</i>
Sitka	<i>Picea sitchensis</i>
Sumac, Staghorn	<i>Rhus typhina</i>
Sweetgum, American	<i>Liquidambar styraciflua</i>
Sycamore	
American	<i>Platanus occidentalis</i>
California	<i>Platanus racemosa</i>
Yew, Japanese	<i>Taxus cuspidata</i>

(continued)

ORNAMENTAL SPECIES (continued)

Table 7. SHRUBS AND GROUNDCOVERS

Common Name	Scientific Name
Abelia, Glossy	<i>Abelia x grandiflora</i>
Acacia	<i>Acacia</i> spp.
Anise, Purple	<i>Illicium floridanum</i>
Barberry	<i>Berberis</i> spp.
Japanese	<i>Berberis thunbergii</i>
William Penn	<i>Berberis x gladwynensis</i>
Bayberry	<i>Myrica pensylvanica</i>
Bottlebrush	<i>Callistemon</i> spp.
Boxwood, Littleleaf	<i>Buxus microphylla</i>
Camellia, Japanese	<i>Camellia japonica</i>
Cinquefoil, Shrubby	<i>Potentilla fruticosa</i>
Cotoneaster, Bearberry	<i>Cotoneaster dammeri</i>
Crepe Myrtle ¹	<i>Lagerstroemia indica</i> spp.
Elaeagnus	<i>Elaeagnus</i> spp.
English Ivy	<i>Hedera helix</i>
Euonymus, Winged ²	<i>Euonymus alatus</i>
Firethorn, Scarlet	<i>Pyracantha coccinea</i>
Forsythia	
Border	<i>Forsythia x intermedia</i>
Weeping	<i>Forsythia suspensa</i>
White	<i>Abeliophyllum distichum</i>
Gardenia, Cape Jasmine	<i>Gardenia jasminoides</i>
Heath	<i>Erica cinerea</i>
Holly	
Chinese	<i>Ilex cornuta</i>
Inkberry	<i>Ilex glabra</i>
Japanese ²	<i>Ilex crenata</i>
Meserve ²	<i>Ilex x meserveae</i>
Nellie R. Stevens	<i>Ilex x Nellie R. Stevens</i>
Honeysuckle, Japanese	<i>Lonicera japonica</i>
Indian Hawthorn	<i>Rhaphiolepis indica</i>
Juniper	
Creeping	<i>Juniperus horizontalis</i>
Shore	<i>Juniperus conferta</i>
Singleseed	<i>Juniperus squamata</i>
Myoporum	<i>Myoporum parvifolium</i>
Oleander	<i>Nerium</i> spp.
Oregon Grape	<i>Mahonia</i> spp.
Pachysandra	<i>Pachysandra terminalis</i>
Photinia	<i>Photinia x fraseri</i>
Pieris, Japanese	<i>Pieris japonica</i>
Pittosporum, Japanese	<i>Pittosporum tobira</i>
Privet	
Chinese ²	<i>Ligustrum sinense</i>
Japanese	<i>Ligustrum japonicum</i>
Pyracantha	<i>Pyracantha</i> spp.

¹ Temporary injury reported at bud break on some cultivars.

² Injury reported following application to newly transplanted liners.

(continued)

ORNAMENTAL SPECIES (continued)

Table 7. SHRUBS AND GROUNDCOVERS (continued)

Common Name	Scientific Name
Rhododendron, Catawba	<i>Rhododendron catawbiense</i>
Rose	<i>Rosa</i> spp.
Sweet Flag	<i>Acorus calamus</i>
Sweetspire, Virginia	<i>Itea virginica</i>
Tea Olive	<i>Osmanthus fragrans</i>
Viburnum	
Arrowwood	<i>Viburnum dentatum</i>
Pink Dawn	<i>Viburnum x bodnantense</i>
Sweet ²	<i>Viburnum odoratissimum</i>
Weigela	<i>Weigela florida</i>

² Injury reported following application to newly transplanted liners.

Table 8. NON-BEARING FRUIT AND NUT TREES, AND VINES

Common Name	Scientific Name
Apple	<i>Malus</i> spp.
Blueberry, Huckleberry	<i>Vaccinium</i> spp.
Bramble	<i>Rubus</i> spp.
Cherry, Sweet	<i>Prunus avium</i>
Citrus Fruit	<i>Citrus</i> spp.
Grape	<i>Vitis</i> spp.
Olive	<i>Olea</i> spp.
Peach	<i>Prunum persica</i>
Pear	<i>Pyrus communis</i>
Prune	<i>Prunus</i> spp.
Stone Fruit	<i>Prunus</i> spp.
Tree Nuts	
Walnut	<i>Juglans</i> spp.
Chestnut	<i>Castanea</i> spp.
Pecan	<i>Carya illinoensis</i>
Pistachio	<i>Pistacia vera</i>
Almond	<i>Prunus dulcis</i>
Filbert	<i>Corylus maxima</i>

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 formulated or dilute spray solution into food or drink containers.

Do not contaminate food or foodstuffs.

Do not store or transport near feed or food.

Do not use or store 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 outer bag. Do not reuse or refill the outer bag. Completely empty bag into application equipment. Offer for recycling, if available or dispose of empty bag in a sanitary landfill or by incineration.

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