

59639-128

10/07/2003

Jacket  
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U.S. ENVIRONMENTAL PROTECTION AGENCY  
Office of Pesticide Programs  
Registration Division (7505C)  
401 "M" St., S.W.  
Washington, D.C. 20460

EPA Reg. Number:  
59639-128

Date of Issuance:  
OCT - 7 2003

NOTICE OF PESTICIDE:  
 Registration  
 Reregistration  
(under FIFRA, as amended)

Term of Issuance:  
Conditional

Name of Pesticide Product:  
BroadStar Herbicide

Name and Address of Registrant (include ZIP Code):

Valent U.S.A. Corporation  
1600 Riviera Avenue  
P.O. Box 8025  
Walnut Creek, CA 94596

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

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

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

This product is conditionally registered in accordance with FIFRA sec. 3(c)(7)(A) provided that you:

1. Submit and/or cite all data required for registration/reregistration of your product under FIFRA sec. 3(c)(5) when the Agency requires all registrants of similar products to submit such data; and submit acceptable responses required for reregistration of your product under FIFRA section 4.

2. Make the following label changes listed below before you release the product for shipment:

a. Add the phrase, "EPA Reg. No. 59639-128".

b. Our understanding is that "Container and Field Grown" applies to all use sites i.e. one application site is "Container and Field Grown Conifers". If you intend this product to be applied to other sites, you must submit an application for amended registration for all sites that you intend this product to be applied to.

Signature of Approving Official:

*Joanne J. Miller*

Date:

OCT - 7 2003

a. Add the following statement:

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

b. Add the following Run-Off Statements:

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, such as no till, limited till and contour plowing; these methods also reduce pesticide run-off. Where feasible, use application techniques such as T-banding and in-furrow techniques which incorporate the pesticide into the soil. Use of vegetation filter strips along rivers, creeks, streams, wetlands, or on the downhill side of fields where run-off could occur will minimize water run-off is recommended.

c. Specify "Do not apply aerially" and incorporate the following Drift Precautions:

Drift Reduction

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.
- Do not make applications into areas of temperature inversions. Inversions are characterized by stable air and increasing temperatures with increasing distance above the ground. Mist or fog may indicate the presence of an inversion in humid areas. Where permissible by local regulations, the applicator may detect the presence of an inversion by producing smoke and observing a smoke layer near the ground surface.

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- All application equipment must be properly maintained and calibrated using appropriate carriers.

If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6(e). Your release for shipment of the product constitutes acceptance of these conditions.

A stamped copy of the label is enclosed for your records.

Joanne I. Miller  
Product Manager (23)  
Herbicide Branch  
Registration Division (7505C)

Enclosure

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ACCEPTED  
with COMMENTS  
In EPA Letter Dated  
OCT - 7 2003

Under the Federal Insecticide,  
Fungicide, and Rodenticide Act  
as amended, for the pesticide  
registered under EPA Reg. No.

59639-128

# BroadStar™ Herbicide

PROVIDES PREEMERGENCE WEED CONTROL IN CONTAINER AND FIELD GROWN SHRUBS,  
TREES AND GROUND COVERS

VERY EFFECTIVE AGAINST BITTERCRESS, SPURGE, LIVERWORT AND MANY OTHER ANNUAL  
WEEDS

PROVIDES AT LEAST 8-12 WEEKS OF PREEMERGENT CONTROL UNDER NORMAL GROWING  
CONDITIONS

DOES NOT INHIBIT ROOT GROWTH

Active Ingredient	By Wt.
*Flumioxazin.....	0.25%
Other Ingredients .....	<u>99.75%</u>
Total .....	100.00%

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

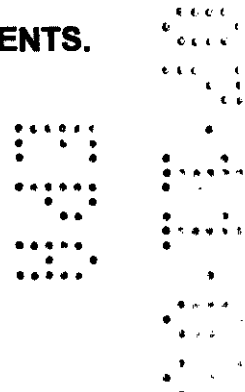
BROADSTAR Herbicide is a granule containing 0.25% active ingredient.

KEEP OUT OF REACH OF CHILDREN

## CAUTION

SEE SIDE PANEL FOR ADDITIONAL PRECAUTIONARY STATEMENTS.

NET WEIGHT \_\_\_ POUNDS



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**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.

**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 **1-800-892-0099** for emergency medical treatment information.

**PERSONAL PROTECTIVE EQUIPMENT (PPE):**

Some of the materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions for category A on an EPA chemical-resistance category selection chart.

**Applicators and other handlers must wear:** long-sleeved shirt and long pants, chemical-resistant gloves made of any waterproof material such as polyethylene or polyvinyl chloride, shoes and socks. Follow manufacturer's instructions for cleaning/maintaining PPE. If there are no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

**USER SAFETY RECOMMENDATIONS**

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

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**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.

**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, such as plants, soil, or water, is: coveralls, chemical-resistant gloves made of any waterproof material, shoes plus socks.

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**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 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.

**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. EXCEPT 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**

In no event shall Valent or Seller be 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. 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**

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.

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

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## GENERAL INFORMATION

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BROADSTAR Herbicide is a selective preemergence herbicide that provides extended residual control of a wide variety of annual broadleaf and grassy weeds. In addition, BROADSTAR provides limited postemergence control of certain newly emerged broadleaf weeds. BROADSTAR is labeled for use in containerized ornamental shrubs and trees, ground covers and non-bearing fruit and nut trees that are grown in nurseries. BROADSTAR can also be applied to field grown ornamental shrubs and trees, non-bearing vineyards and non-cropland areas. BROADSTAR should not be applied in residential or commercial landscapes. Apply BROADSTAR before germination of target weeds or immediately after cultivation.

BROADSTAR 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 is tightly bound to soil and does not inhibit or limit root growth under normal growing conditions. Plant injury associated with volatilization of BROADSTAR from soil has not been observed.

BROADSTAR granules may cause leaf spotting or speckling on ornamental shrubs if granules remain in contact with leaf surfaces, especially if foliage is wet at time of application. However, BROADSTAR is not translocated within plant tissue and subsequent plant growth will therefore not be affected by any leaf spotting.

### General Restrictions and Limitations

- Do not apply to moist or wet foliage.
- Do not apply when winds are gusty or above 8 mph.
- 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.
- Do not apply to plants whose leaves channel the herbicide granules to the leaf base (e.g., Daylily or Hosta). Do not apply to bedding plants or areas where bedding plants will be planted or transplanted within one year following application.
- Do not apply to newly transplanted ornamentals until packing and irrigation or rainfall has settled soil or potting media.
- Non-bearing fruit trees such as citrus, apples, pears, peaches, etc. are defined as plants that will not bear fruit for at least one year after application.
- Do not incorporate product into soil or potting media.
- Do not apply to flowers, vegetables, turf or to ornamentals growing in residential or commercial landscapes.

### **Preemergence Application**

BROADSTAR provides effective preemergence control of weeds listed in Table 4. For optimal preemergence control, apply BROADSTAR to clean, weed free soil before weed seeds germinate. Disturbing soil surfaces after application may reduce herbicide efficacy. Remove existing weeds, weed residues and trash before application of BROADSTAR. Soil should be in good condition and free of clods at the time of application. Approximately 0.75 to 1 inch of rainfall, overhead sprinkler irrigation or hand irrigation is required to activate BROADSTAR. Inadequate irrigation or rainfall following application may reduce effectiveness of BROADSTAR. If adequate soil moisture is maintained following application, BROADSTAR should provide at least 8 to 12 weeks of preemergent control of labeled weeds, except under unusual environmental conditions (excessive rainfall, irrigation or temperature). Control is generally most persistent under cooler temperatures.

### **Application Instructions**

Apply BROADSTAR with clean, well maintained drop or rotary type granular application equipment. Calibrate application equipment prior to use according to manufacturer's directions. 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. To achieve a more uniform application, broadcast half of the desired amount of BROADSTAR in one direction and then apply the remainder at a right angle to the first direction. Clean equipment before adding BROADSTAR 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.

### **Application Recommendations**

- **Apply to dry foliage only.** To test for moisture, rub hands over plant foliage.
- Remove any existing weeds before applying BROADSTAR.
- Irrigate plants immediately after application with 0.75 to 1 inch of water to wash the particles off plant foliage and to activate the herbicide.

### **Application Techniques**

- Apply BROADSTAR 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, such as 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 needed to treat area, place this amount in shaker and apply evenly over plants.

## **RESISTANCE MANAGEMENT**

Any weed population may contain or develop plants naturally resistant to herbicides in various mode of action classes. Resistant biotypes may eventually dominate the weed population if the same class of chemistry/mode of action herbicides are used repeatedly in the same field or in successive years. These resistant biotypes may not be adequately controlled by herbicides in a mode of action class for which resistance has developed. A gradual or total loss of weed control may occur over time. Other resistance mechanisms that are not linked to site of action, such as enhanced metabolism, may also exist. Appropriate resistance management strategies should be followed.

### **To Delay Herbicide Resistance**

- Avoid the use of herbicides that have a similar target site mode of action in consecutive years.
- Herbicide use should be based on an Integrated Pest Management (IPM) program that includes scouting, record keeping, and consideration of cultivation practices, water management, weed free crop seed, crop rotation, and other chemical or cultural control practices.
- Monitor treated weed population for resistance development and report suspected resistance.
- Contact your local extension or crop expert (advisor) for any additional pesticide resistance management and/or IPM recommendations for specific crops and weed biotypes.
- For further information contact Valent U.S.A. Corporation at the following toll free number 1-800-682-5368.

**SETTINGS FOR HAND CRANKED SPREADERS**

The application rate (lbs./Acre) of BROADSTAR 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). Use the spreader settings in the following table as a starting point when applying BROADSTAR with hand cranked spreaders. These settings assume a walking speed of 3 mph, a cranking speed of 60 revolutions per minute (rpm) and that operators make one pass down each aisle between each plant bed. Adjust spreader settings according to actual walking and cranking speeds.

**Important Note:** This table should be used as a starting point. Applicators should always use a properly calibrated spreader and make applications at the correct rate as specified on this label.

**Table 1. Settings for Hand Cranked Spreaders**

Spreader	One Sided Operation		Two Sided Operation	
	Bed Width (ft.)	Spreader Settings	Bed Width (ft.)	Spreader Settings
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.	
	Lbs./Acre	Lbs.	Qts.	Cups
150	3.4	2.4	0.34	1.0

One pound of BROADSTAR = 0.7 quarts = 2.8 cups

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## ORNAMENTAL PLANT TOLERANCE INFORMATION

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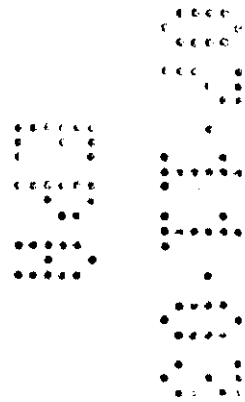
**IMPORTANT:** Most woody ornamental plants are tolerant to BROADSTAR when the product is applied according to the label. However, BROADSTAR is a very active herbicide and the user should exercise reasonable judgment and caution until gaining familiarity with this product. Due to variability within species, crop growth stage, environmental conditions and application techniques, users should first test BROADSTAR on a small number of plants grown under standard production practices. Examine test plants for 2 to 4 weeks for symptoms of phytotoxicity. Testing BROADSTAR on a small number of plants will determine whether the product is suitable for widespread application.

**Treatment of Species Not Listed on Label**

BROADSTAR can be applied to ornamental species or non-bearing fruit and nut trees not specifically listed on this label, but the user should first test the tolerance of non-listed plants to BROADSTAR. Before widespread application to any non-listed plant species, treat a small number of plants with BROADSTAR and examine plants for symptoms of herbicidal injury for 3 to 6 months. Test plants should be grown under standard production practices. The user assumes responsibility for any plant damage or other liability resulting from use of BROADSTAR on plant species not listed on this label.

**BROADSTAR can severely injure a variety of annual bedding plants and herbaceous perennials (e.g., Hosta and Daylily). The most common symptoms of injury are small necrotic spots on leaves and temporary dieback of new growth.**

**BROADSTAR can injure liners of several woody ornamental species that are tolerant when more mature. Injury is most likely when BROADSTAR is applied before liners establish a vigorous root system.**



**DIRECTIONS FOR USE IN CONTAINER OR FIELD GROWN ORNAMENTAL SHRUBS, TREES, GROUNDCOVERS, NON-BEARING FRUIT AND NUT TREES AND CONIFERS**

**Preemergence Application**

Apply 150 lbs. per acre (approximately 3.5 lbs. per 1000 sq. ft.) of BROADSTAR before weeds germinate. Apply 0.75 to 1 inch of irrigation by hand, overhead sprinkler or fan emitter immediately after application of BROADSTAR. Irrigation after application is an important step for herbicide activation. Irrigation releases active ingredient from the granule. Effective irrigation and herbicide activation is especially important under cooler temperatures. Drip irrigation may not be sufficient to activate BROADSTAR. **Do not apply to moist or wet foliage.**

**Product Use Restrictions and Limitations**

- Remove existing weeds or weed debris BEFORE application.
- 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 more than 150 lbs. per acre in a single application.
- Do not apply more than 300 lbs. per acre in a single year.
- Do not treat the same plants more than one time every 8 weeks.
- Do not treat the same plants more than two times per year.
- Do not apply to moist or wet foliage
- Do not apply in an enclosed greenhouse structure.
- Do not apply to pots less than four inches wide.
- Do not place treated plants in an enclosed structure until after applying 1" of irrigation to plants and for 7 days after treatment.
- Do not graze or feed livestock forage cut from treated areas.

**List of Plants Susceptible to Injury**

Plant injury has been observed on the following plant species and cultivars. Injury is mostly in the form of leaf spotting or speckling on treated leaves, especially new flushes of growth. It is recommended that BROADSTAR not be applied to these plants.

**Table 3.**

COMMON NAME	SCIENTIFIC NAME
Cleyera	<i>Cleyera japonica</i>
Crape Myrtle	<i>Lagerstromemia indica</i> "Tuscarora"
Deutzia	<i>Deutzia crenata</i> "Nikko"
Holly, Japanese	<i>Ilex crenata</i> "Green Lustre"
Ligustrum*	<i>Ligustrum</i> spp.*
Nandina	<i>Nandina domestica</i>
Spirea	<i>Spirea</i> spp.
Hydrangea	<i>Hydrangea</i> spp.

\*injury observed only on newly flushing growth.

## WEEDS CONTROLLED

When applied at the recommended rate before weeds germinate, BROADSTAR will provide good to excellent control of the following grasses and broadleaf weeds.

**Table 4.**

<b>Common Name</b>	<b>Scientific Name</b>
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 tortuosum</i>
Bittercress, Hairy	<i>Cardamine hirsuta</i>
Bluegrass, Annual	<i>Poa annua</i>
Burclover, California	<i>Medicago hispida</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>
Dogfennel	<i>Eupatorium capillifolium</i>
Doveweed	<i>Murdannia nudiflora</i>
Eclipta	<i>Eclipta prostrata</i>
Filaree, Redstem	<i>Erodium cicutarium</i>
Foxtail	
Bristly	<i>Setaria verticillata</i>
Giant	<i>Setaria faberi</i>
Green	<i>Setaria viridis</i>
Yellow	<i>Setaria glauca</i>
Galinsoga, Hairy	<i>Galinsoga ciliata</i>
Geranium, Carolina	<i>Geranium carolinianum</i>
Goosegrass	<i>Eleusine indica</i>
Groundsel, Common	<i>Senecio vulgaris</i>
Henbit	<i>Lamium amplexicaule</i>
Horseweed	<i>Conyza canadensis</i>
Indigo, Hairy	<i>Indigofera hirsuta</i>

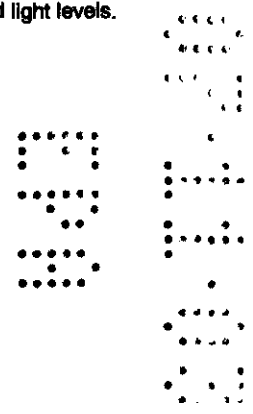
continued

**Table 4. WEEDS CONTROLLED** continued

Common Name	Scientific Name
Jimsonweed	<i>Datura stramonium</i>
Kochia	<i>Kochia scoparia</i>
Ladysthumb	<i>Polygonum persicaria</i>
Lambsquarters, Common	<i>Chenopodium album</i>
Liverwort*	<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>integriscula</i>
Ivyleaf	<i>Ipomoea hederacea</i>
Smallflower	<i>Jacquemontia tamnifolia</i>
Tall	<i>Ipomoea purpurea</i>
Moss species	<i>Bryum</i> spp.
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, Longstalk	<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>

Continued

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





**Table 4. WEEDS CONTROLLED** continued

<b>Common Name</b>	<b>Scientific Name</b>
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>Bracharia platyphylla</i>
Smartweed, Pennsylvania	<i>Polygonum pennsylvanicum</i>
Sowthistle, Annual	<i>Sonchus oleraceus</i>
Spurge	
Prostrate	<i>Euphorbia maculata</i>
Spotted	<i>Euphorbia maculata</i>
Starbur, Bristly	<i>Acanthospermum hispidum</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>

## TOLERANT ORNAMENTAL SPECIES

**IMPORTANT: Please read Ornamental Plant Tolerance Information above before wide scale treatment of ornamental plants.**

**Table 5. TREES**

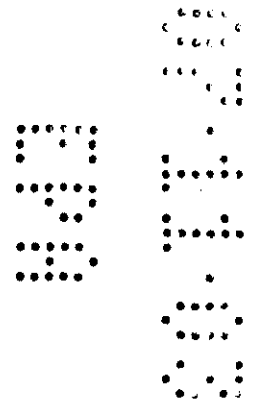
<b>Common Name</b>	<b>Scientific Name</b>
Ash	<i>Fraxinus</i> spp.
Arborvitae	
American	<i>Thuja occidentalis</i>
Oriental	<i>Thuja orientalis</i>
Birch	<i>Betula</i> spp.
Cedars	<i>Cedrus</i> spp.
Crabapple, Flowering	<i>Malus</i> spp.
Cottonwood	<i>Populus deltoids</i>
Cypress	
False	<i>Chamaecyparis</i> spp.
Italian	<i>Cupressus sempervirens</i>
Dogwood, Flowering	<i>Cornus florida</i>
Elm, Chinese	<i>Ulmus parvifolia</i>
Eucalyptus	
Mealy	<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	<i>Syringa</i> spp.
Magnolia, Southern	<i>Magnolia grandiflora</i>
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>

continued

**TOLERANT ORNAMENTAL SPECIES** continued

**Table 5. TREES** continued

<b>Common Name</b>	<b>Scientific Name</b>
<b>Oak</b>	
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>
<b>Pine</b>	
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 elliotii</i>
Virginia	<i>Pinus virginiana</i>
White	<i>Pinus strobus</i>
Plum, Beach	<i>Prunus maritima</i>
Podocarpus	<i>Podocarpus spp.</i>
Poplar	<i>Populus spp.</i>
Red Cedar, Eastern	<i>Juniperus virginiana</i>
Redbud	<i>Cercis canadensis</i>
<b>Spruce</b>	
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>
<b>Sycamore</b>	
American	<i>Platanus occidentalis</i>
California	<i>Platanus racemosa</i>
<b>Yew</b>	
English	<i>Taxus baccata</i>
Japanese	<i>Taxus cuspidata</i>



## TOLERANT ORNAMENTAL SPECIES continued

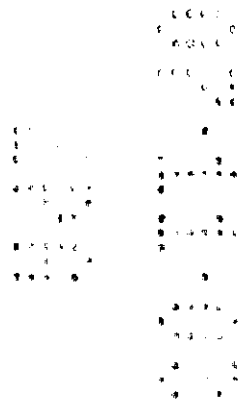
Table 6. SHRUBS AND GROUNDCOVERS

Common Name	Scientific Name
Abelia	<i>Abelia</i> spp.
Acacia	<i>Acacia</i> spp.
Anise, Purple	<i>Illicium floridanum</i>
Azalea	<i>Rhododendron</i> spp.
Barberry	<i>Berberis</i> spp.
Bayberry	<i>Myrica pensylvanica</i>
Bottlebrush	<i>Callistemon</i> spp.
Boxwood	<i>Buxus</i> spp.
Butterfly Bush	<i>Buddleia</i> spp.
Camellia	<i>Camellia</i> spp.
Cotoneaster	<i>Cotoneaster</i> spp.
Crape Myrtle	<i>Lagerstroemia</i> spp.
Elaeagnus	<i>Elaeagnus</i> spp.
English/Hardy Ivy	<i>Hedera helix</i>
Euonymus	<i>Euonymus</i> spp.
Forsythia	
White	<i>Abeliophyllum distichum</i>
Weeping	<i>Forsythia suspensa</i>
Gardenia	<i>Gardenia</i> spp.
Heath	<i>Erica cinerea</i>
Holly	<i>Ilex</i> spp.
Honeysuckle	<i>Lonicera</i> spp.
Indian Hawthorn	<i>Raphiolepis indica</i>
Juniper	<i>Juniperus</i> spp.
Lantana	<i>Lantana</i> spp.
Lilly-of-the-Valley Bush	<i>Pieris japonica</i>
Myoporum	<i>Myoporum parvifolium</i>
Oleander	<i>Nerium</i> spp.
Oregon Grape	<i>Mahonia</i> spp.
Pachysandra	<i>Pachysandra terminalis</i>
Palm	<i>Chamaedorea</i> spp.
Photinia	<i>Photinia</i> spp.
Pittosporum	<i>Pittosporum</i> spp.
Pyracantha	<i>Pyracantha</i> spp.
Rhododendron	<i>Rhododendron</i> spp.
Rose	<i>Rosa</i> spp.
Sweet Flag	<i>Acorus calamus</i>
Sweetspire, Virginia	<i>Itea virginica</i>
Tea Olive	<i>Osmanthus fragrans</i>
Viburnum	<i>Viburnum</i> spp.
Weigela	<i>Weigela</i> spp.

TOLERANT ORNAMENTAL SPECIES continued

Table 7. Non-bearing Fruit and Nuts Trees and Vines

Common Name	Scientific Name
Apples	<i>Malus</i> spp.
Blueberry, Huckleberry	<i>Vaccinium</i> spp.
Bramble	<i>Rubus</i> spp.
Cherry, Sweet	<i>Prunus avium</i>
Citrus Fruits	<i>Citrus</i> spp.
Grapes	<i>Vitis</i> spp.
Olives	<i>Olea</i> spp.
Peach	<i>Prunum persica</i>
Pears	<i>Pyrus communis</i>
Prunes	<i>Prunus</i> spp.
Stone Fruits	<i>Prunus</i> spp.
Tree Nuts	
Walnut	<i>Juglans</i> spp.
Chestnut	<i>Castanea</i> spp.
Pecan	<i>Carya illionoinensis</i>
Pistachio	<i>Pistacia vera</i>
Almond	<i>Prunus dulcis</i>
Filbert	<i>Corylus maxima</i>



## STORAGE AND DISPOSAL

### PROHIBITIONS

Do not contaminate water, food or feed by storage, disposal or cleaning of equipment.

### PESTICIDE STORAGE

Keep pesticide in original container.

Store in a cool, dry, secure place.

Do not put formulation or dilute spray solution into food or drink containers.

Do not contaminate food or foodstuffs.

Do not store or transport near feed or food.

Not for use or storage in or around the home.

For help with any spill, leak, fire or exposure involving this material, call day or night (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 DISPOSAL

Completely empty bag into application equipment. Then dispose of empty bag in a sanitary landfill or by incineration, or if allowed by State and local authorities, by burning. If burned, stay out of smoke.

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