



100-879

10/23/2003

Jacket  
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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

WASHINGTON, D.C. 20460

OFFICE OF  
PREVENTION, PESTICIDES  
AND TOXIC SUBSTANCES

Mr. Rich Lotstein  
Regulatory Team Leader Professional Products  
Syngenta Crop Protection, Inc.  
P.O. Box 18300  
Greensboro, NC 27419

OCT 23 2003

Dear Mr. Lotstein:

Subject: Barricade® G Herbicide  
EPA Registration No. 100-879  
Application and Your Letter Dated October 13, 2003,  
Request to Amend Registration by Revising "First Aid  
Statements" To Comply with EPA PR Notice 2001-1

The proposed amendments to the subject registration reflected on the submitted labeling have been reviewed and found acceptable under the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA) as amended, provided that you:

1. Either delete the word "selective" or describe the meaning of this descriptor as it applies to the labeling that follows, on pages 1, 7, and 8.
2. Delete editor's notes on the first page, i.e., SCP 879A Draft" and on page 24.
3. Submit one copy of the final printed labeling prior to shipping under the revised labeling.

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 this product under the revised labeling constitutes acceptance of these conditions. A stamped copy of the accepted labeling is enclosed for your records.

Sincerely yours,

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

Enclosure

Barricade® G

HERBICIDE

Active Ingredient:

Prodiamine (CAS No. 29091-21-2).....2.0%

Other Ingredients: 98.0%

Total 100.0%

For selective preemergence control of grass and broadleaf weeds in:

- established turf grasses (excluding golf course putting greens), lawns and sod nurseries
- container, field grown and landscape ornamentals
- conifer and hardwood seedling nurseries
- established perennial & wildflower plantings
- plants grown for cut foliage production
- non-crop areas on or surrounding managed rights-of-way for transportation systems and utilities (including roadways, roadsides, railways & equipment yards)
- facilities including substations, tank farms, pumping stations, parking & storage areas, and ungrazed fencerows
- Christmas tree farms

**KEEP OUT OF REACH OF CHILDREN.**

**CAUTION**

See additional Precautionary Statements and Directions for Use in attached booklet.

EPA Reg. No. 100-879

EPA Est. No.

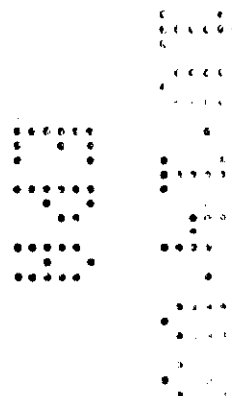
NET CONTENTS

SCP 879A DRAFT

ACCEPTED  
with COMMENTS  
In EPA Letter Dated  
**OCT 23 2003**

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

100-879



<b>FIRST AID</b>	
<b>If in eyes</b>	<ul style="list-style-type: none"> <li>• Hold eye open and rinse slowly and gently with water for 15–20 minutes.</li> <li>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
<b>If on skin or clothing</b>	<ul style="list-style-type: none"> <li>• Take off contaminated clothing.</li> <li>• Rinse skin immediately with plenty of water for 15–20 minutes.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
<b>If inhaled</b>	<ul style="list-style-type: none"> <li>• Move person to fresh air.</li> <li>• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible.</li> <li>• Call a poison control center or doctor for further treatment advice.</li> </ul>
Have the product container or label with you when calling a poison control center or doctor, or going for treatment.	
<p align="center"><b>HOT LINE NUMBER</b></p> <p align="center">For 24 Hour Medical Emergency Assistance (Human or Animal) or Chemical Emergency Assistance (Spill, Leak, Fire, or Accident), Call <b>1-800-888-8372</b></p>	

## **PRECAUTIONARY STATEMENTS**

### **Hazards to Humans and Domestic Animals**

#### **CAUTION**

Causes moderate eye injury (irritation). Harmful if inhaled or absorbed through the skin. Avoid contact with skin, eyes, or clothing. Avoid breathing dust. Wash thoroughly with soap and water after handling. Prolonged or frequently repeated skin contact, while mixing or handling the concentrated material, may cause allergic reactions in some individuals.

## **Personal Protective Equipment (PPE)**

### **WPS USES:**

Applicators and other handlers (other than mixers and loaders) who handle this pesticide for any use covered by the Worker Protection Standard (40 CFR Part 170) - in general, agricultural-plant uses are covered – must wear:

- Long-sleeved shirt and long pants
- Waterproof gloves
- Shoes plus socks

### **Mixers and Loaders must wear:**

- Long-sleeved shirt and long pants
- Waterproof gloves
- Shoes plus socks

### **NON-WPS USES:**

Mixers and loaders who handle this pesticide for any use NOT covered by the Worker Protection Standard (40 CFR Part 170) – in general, only agricultural-plant uses are covered by the WPS – must wear:

- Waterproof gloves

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

## **Engineering Controls Statements**

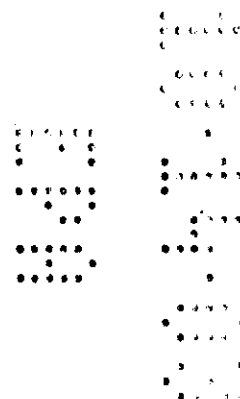
When handlers use closed systems or enclosed cabs in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240 (d) (4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

**User Safety Recommendations:****Users should:**

- 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.
- After handling this product, immediately wash the outside of gloves before removing them, then remove gloves and all other PPE. Immediately wash thoroughly and change into clean clothing.

**Environmental Hazards**

This product has low solubility in water. At the limit of solubility, this product is not toxic to fish. However, at concentrations substantially above the level of water solubility, it may be toxic to fish. 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 from treated areas may be hazardous to aquatic organisms in adjacent sites. Do not contaminate water when disposing of equipment wash water.



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**CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY**

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**NOTICE:** Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before buying or using this product. If the terms are not acceptable, return the product at once, unopened, and the purchase price will be refunded.

The Directions for Use of this product should be followed carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as manner of use or application, weather or crop conditions, presence of other materials or other influencing factors in the use of the product, which are beyond the control of SYNGENTA CROP PROTECTION, Inc. or Seller. All such risks shall be assumed by Buyer and User, and Buyer and User agree to hold SYNGENTA and Seller harmless for any claims relating to such factors.

SYNGENTA warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use, subject to the inherent risks referred to above, when used in accordance with directions under normal use conditions. This warranty does not extend to the use of the product contrary to label instructions, or under abnormal conditions or under conditions not reasonably foreseeable to or beyond the control of Seller or SYNGENTA, and Buyer and User assume the risk of any such use. SYNGENTA MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS STATED ABOVE.

In no event shall SYNGENTA or Seller be liable for any incidental, consequential or special damages resulting from the use or handling of this product. **THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF SYNGENTA AND 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 THE PRODUCT OR, AT THE ELECTION OF SYNGENTA OR SELLER, THE REPLACEMENT OF THE PRODUCT.**

SYNGENTA and Seller offer this product, and Buyer and User accept it, subject to the foregoing conditions of sale and limitations of warranty and of liability, which may not be modified except by written agreement signed by a duly authorized representative of SYNGENTA.

## DIRECTIONS FOR USE

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

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 instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry interval. The requirements in this box only apply to 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.**

Exception: If the product is soil injected or soil incorporated, the Worker Protection Standard, under certain circumstances, allows workers to enter the treated area if there will be no contact with anything that has been treated.

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
- Waterproof gloves
- Shoes plus socks

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### STORAGE AND DISPOSAL

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

## Storage

Store in original container away from fertilizer, feed, or food stuffs and separated from other pesticides.

## 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

**Paper bags:** Completely empty container into application equipment. Then dispose of empty container in a sanitary landfill or at an incineration facility; or, if allowed by state and local authorities, by burning locally. If burned, stay out of smoke.

For minor spills, leaks, etc., follow all precautions indicated on this label and clean up immediately. Take special care to avoid contamination of equipment and facilities during cleanup procedures and disposal of wastes. In the event of a major spill, fire, or other emergency, call 1-800-888-8372, day or night.

Barricade G is a selective preemergence herbicide that provides residual control of many grass and broadleaf weeds in:

- established turf grasses (excluding golf course putting greens), lawns and sod nurseries
- container, field grown and landscape ornamentals
- conifer and hardwood seedling nurseries
- established perennial & wildflower plantings
- plants grown for cut foliage production
- non-crop areas on or surrounding managed rights-of-way for transportation systems and utilities (including roadways, railways & equipment yards)
- facilities including substations, tank farms, pumping stations, parking & storage areas, and ungrazed fencerows
- Christmas tree farms

Barricade G controls susceptible weeds by inhibiting weed seeds germination and root development. Most effective weed control will be obtained when Barricade G is activated by at least 0.5 inch of rainfall or irrigation, or with shallow (1 to 2 inches) incorporation, prior to weed seed germination and within 14 days following application.

Do not graze or feed livestock forage cut from areas treated with Barricade G.

Do not apply aerially.

Do not apply to golf course putting greens.



## APPLICATION DIRECTIONS

Apply uniformly with suitable, calibrated application equipment.

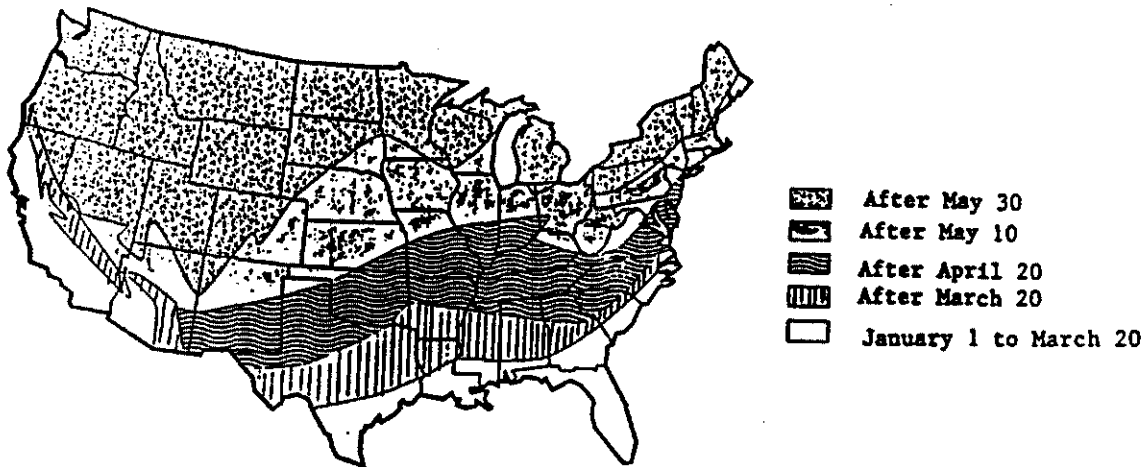
## ESTABLISHED TURF

Barricade G is a selective preemergence herbicide that, when properly applied, will control certain grass and broadleaf weeds in established turf grasses and lawns. The maximum amount of Barricade G that may be applied per year is given for each turf grass species in the **Maximum Annual Rates** section of this label.

Most effective weed control in turf grasses will be obtained when Barricade G is activated by at least 0.5 inch of rainfall or irrigation prior to weed seed germination and within 14 days following application. See the map below for approximate crabgrass seed germination dates.

### CRABGRASS SEED GERMINATION DATES

Approximate Date



### Use Precautions

The following precautions apply to the use of Barricade G in turf grasses and lawns:

1. Application of Barricade G may thin emerged annual bluegrass and newly over-seeded grasses.

2. Do not apply to overseeded turf within 60 days after seeding or until after the second mowing, whichever is longer. Injury to desirable seedlings is likely if Barricade G is applied before seedling secondary roots are in the second inch of soil, not thatch plus soil.
3. Do not cut (harvest) treated sod before 120 days after application. Do not apply to newly set sod until the following year.
4. Application of Barricade G to turf stressed by drought, low fertility, or pest damage may result in turf injury.
5. Disturbing the herbicide barrier with cultural practices such as disking may result in reduced weed control.
6. Do not apply Barricade G to putting greens or areas where dichondra, colonial bentgrass, velvet bentgrass, or annual bluegrass (*Poa annua*) are desirable species.

#### **Rates of Application**

Barricade G may be applied as a single application or in sequential applications to control weeds germinating throughout the year. All applications must be made prior to germination of the target weeds. Barricade G will not control established weeds.

Maximum use rate selection should be based on turf species. The length of time of residual weed control provided by Barricade G is related to the rate applied. Use higher rates of Barricade G to achieve higher levels of weed control but do not exceed the maximum application rates specified below.

## Maximum Annual Rates

Barricade G is recommended for use on the turf grass species listed in the following table. Do not exceed the maximum yearly rate as given in the following table:

Maximum Application Rate of Barricade G/ Calendar Year by Turf Grass Species <sup>1</sup>	
Turf Species	lbs. product/A
Bermudagrass <sup>2</sup>	75
Bahiagrass	
Centipedegrass	
Seashore Paspalum	
St. Augustinegrass	
Tall Fescue (including turf-type)	
Zoysia	
Buffalograss	50
Kentucky Bluegrass	
Perennial Ryegrass	
Creeping Red Fescue	37
Creeping Bentgrass	33

<sup>1</sup> These are the maximum rates per calendar year by species limitations.

<sup>2</sup> May be used on newly-sprigged or plugged Bermudagrass at rates not to exceed 26 lb./A. Newly sprigged or plugged Bermudagrass stolon rooting may be temporarily retarded.

## Weeds Controlled

When used in accordance with this label Barricade G is approved for control of the following weeds:

Barnyardgrass	Kochia
Bluegrass, Annual ( <i>Poa annua</i> )	Lambsquarter, Common
Carpetweed	Lovegrass
Chickweed, Common	Panicum, (Texas, Fall, Browntop)
Chickweed, Mouseear (from seed)	Pigweed
Crabgrass (Large, Smooth)	Purslane, Common
Crowfootgrass	Pusley, Florida
Cupgrass, Woolly	Rescuegrass <sup>3)</sup>
Foxtails, Annual	Shepherd's Purse <sup>2)</sup>
Goosegrass <sup>1)</sup>	Signalgrass, Broadleaf
Henbit	Speedwell, Persian
Itchgrass	Sprangletop
Johnsongrass (from seed)	Spurge, Prostrate
Junglerice	Witchgrass
Knotweed	Woodsorrel, Yellow (from seed)

<sup>1)</sup>In many areas a single application of 33 to 75 lbs./A Barricade G will control goosegrass. However, under heavy goosegrass pressure and/or an extended growing season, most effective weed control may be obtained by making an initial application of 33 to 50 lbs./A followed after 60 to 90 days by a second application at doses that would not exceed those given in the **Maximum Application Rates Table**. Do not exceed the maximum rate for turf grass species listed in the **Maximum Application Rates Table** above.

<sup>2)</sup>Applications for this weed should be made in late summer, fall, or winter prior to germination.

<sup>3)</sup>Suppression only.

Sequential applications may be made so long as the total amount of product applied does not exceed the maximum annual application rates recommended for each turf species. All applications must be made prior to germination of the weed seeds.

### When to Apply After Overseeding Turf

Do not apply to overseeded turf within 60 days after seeding or until after the second mowing, whichever is longer. Injury to desirable seedlings is likely if Barricade G is applied before seedling secondary roots are in the second inch of soil, not thatch plus soil.

### When to Overseed After Application

Barricade G will inhibit the germination of turf species if overseeded too soon after application. Follow rates and intervals in the table below for best overseeding/reseeding results.]

Barricade G Rate (lbs./A)	Months Before Overseeding		
	North	Transition	South
25	4	4	4
33	5	4	4
37	6	5	5
40	—	6	6
50	—	7	7
57	—	—	9
65	—	—	10
75	—	—	12

### CONTAINER, FIELD GROWN, & LANDSCAPE ORNAMENTALS

Barricade G may be applied for residual preemergence weed control in the culture of ornamentals (including Christmas tree farms, established perennial and wildflower plantings).

### Use Rates

Apply Barricade G at 33-75 lbs./A in fall and/or spring. Use higher rates of application for longer control periods. Sequential applications may be made so long as the total amount of product applied does not exceed the maximum annual application rate of 75 lbs./A.

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## **APPLICATION TIMING AND INFORMATION**

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### **All Applications**

Barricade G is a preemergence herbicide and will not control emerged weeds. Most effective weed control in ornamentals will be obtained when Barricade G is activated by at least 0.5 inch of rainfall or irrigation, or with shallow (1 to 2 inch) mechanical incorporation, prior to weed seed germination and within 14 days following application.

Best weed control is obtained when Barricade G is applied to soil free of clods, weeds, and debris such as leaves and mulch. Prior to application of Barricade G, control existing vegetation by hand weeding, cultivation or the use of an appropriate postemergence herbicide.

Apply Barricade G to dry foliage only. Overhead irrigation or rainfall soon after application will wash granules off of plant foliage and activate Barricade G in the soil.

### **Established Container, Field Nursery Stock or Landscape Plants**

Barricade G may be applied at any time to established container or field nursery stock as a broadcast or over-the-top application.

### **Newly-Transplanted Container or Field Nursery Stock**

Barricade G may be applied to newly-transplanted container or field nursery stock. Delay application to allow soil to settle around new transplants and water thoroughly before applying Barricade G. Apply Barricade G after cuttings form roots and become established. Apply before budding/grafting or after buds/grafts have taken to avoid any inhibition of the tissue union.

### **Shadehouses and Uncovered Polyhouses**

In addition to outdoor locations, Barricade G may be applied in shadehouses and uncovered polyhouses. Uncovered polyhouses must remain open for a minimum of 7 days and 2 irrigations totaling at least  $\frac{1}{2}$  inch of water after application.

### **Bare Ground Applications For Container Placement**

Barricade G may be applied to soil (including mulch, gravel, wood chips, or other permeable base) upon which containerized ornamentals are placed. Only shallow cultivation or hand weeding, if necessary, after application, should be performed so as to minimize exposure of untreated soil.

### **Tolerant Ornamental Species**

Barricade G will not harm most trees, shrubs, vines, and flowers. The species listed below in Table 1 are tolerant to Barricade G. Barricade G is approved for application, except in California, to the species in Table 2. Barricade G may be applied over the top of the listed species.

When plants are under stress (such as heat, drought, or frost damage) some cultivars of listed plants may be sensitive to Barricade G.

**Table 1 - Tolerant Ornamental Species - All States**

<b>Scientific name</b>	<b>Common name</b>
<i>Abies</i> spp.	Fir species** (Balsam, Fraser, Noble, etc.)
<i>Acer palmatum</i>	Japanese Maple
<i>Acer platanoides</i>	Norway Maple
<i>Actinidia chinensis</i>	Kiwi*
<i>Agapanthus africanus</i>	Lily-of-the-Nile (African Lily)
<i>Arctostaphylos densiflora</i>	Vine Hill Manzanita
<i>Arctotheca calendula</i>	Cape Weed
<i>Aucuba japonica</i>	Japanese Aucuba
<i>Berberis gladwynensis</i>	Barberry
<i>Berberis julianae</i>	Wintergreen Barberry
<i>Berberis mentorensis</i>	Mentor Barberry
<i>Berberis thunbergii</i>	Japanese Barberry
<i>Berberis verruculosa</i>	Warty Barberry
<i>Buxus microphylla</i>	Japanese Boxwood
<i>Callistemon viminalis</i>	Weeping Bottlebrush
<i>Calluna vulgaris</i>	Scotch Heather
<i>Carpobrotus edulis</i>	Hottentot Fig (Ice Plant)
<i>Cassia artemisioides</i>	Feathery Cassia
<i>Ceanothus rigidus</i>	Wild Lilac
<i>Chamaecyparis pisifera</i>	False Cypress
<i>Cleyera japonica</i>	Cleyera
<i>Citrus</i> spp.	Citrus species*
<i>Cornus florida</i>	Flowering Dogwood
<i>Cornus stolonifera</i>	American Dogwood
<i>Cortaderia selloana</i>	Pampas Grass
<i>Cotoneaster apiculatus</i>	Cranberry Cotoneaster
<i>Cotoneaster buxifolius</i>	Cotoneaster
<i>Cotoneaster dammeri</i>	Bearberry Cotoneaster
<i>Cotoneaster microphyllus</i>	Rockspray Cotoneaster
<i>Crataegus</i> spp.	Hawthorne
<i>Cupressus sempervirens</i>	Italian Cypress
<i>Delosperma alba</i>	White Trailing Ice Plant
<i>Dodonaea viscosa</i>	Hop Bush
<i>Elaeagnus pungens</i>	Silverberry
<i>Euonymus fortunei</i>	Wintercreeper
<i>Euonymus japonica</i>	Japanese Spindle Tree (Evergreen Euonymus)

\*Do not use on food producing trees, vines, or plants.

\*\*Not for use on container grown plants.



**Scientific name**

**Common name**

<i>Euonymus kiautschovicks</i>	Spreading Euonymus
<i>Fatsia japonica</i>	Japanese Aralia
<i>Forsythia intermedia</i>	Border Forsythia
<i>Forsythia viridissima</i>	Greenstem Forsythia
<i>Gardenia jasminoides</i>	Gardenia, Cape-Jasmine
<i>Gladiolus</i> spp.	Gladiolus species**
<i>Hedera helix</i>	English Ivy
<i>Hibiscus</i>	Rose of Sharon**
<i>Hibiscus Rosa-sinensis</i>	Chinese Hibiscus
<i>Ilex cornuta</i>	Chinese Holly
<i>Ilex crenata</i>	Japanese Holly
<i>Ilex opaca</i>	American Holly
<i>Ilex pernyi</i>	Holly
<i>Ilex vomitoria</i>	Yaupon Holly
<i>Iris</i> spp.	Iris species**
<i>Jasminium nudiflorum</i>	Winter Jasmine
<i>Juniperus chinensis</i>	Chinese Juniper
<i>Juniperus conferta</i>	Shore Juniper
<i>Juniperus horizontalis</i>	Creeping Juniper
<i>Juglans</i> spp.	Walnut*
<i>Justicia brandegeana</i>	Shrimp Plant
<i>Lagerstromia indica</i>	Crape Myrtle
<i>Ligustrum amurense</i>	Amur Privet
<i>Ligustrum japonicum</i>	Japanese Privet
<i>Ligustrum lucidum</i>	Glossy Privet (Wax-Leaf)
<i>Liriodendron muscari</i>	Big Blue Lillyturf
<i>Lonicera japonica</i>	Japanese Honeysuckle
<i>Lonicera tatarica</i>	Tatarian Honeysuckle
<i>Magnolia</i> spp.	Magnolia species**
<i>Malephora luteola</i>	Ice Plant
<i>Malus</i> spp.	Crabapple*
<i>Nandina domestica</i>	Heavenly Bamboo
<i>Narcissus</i> spp.	Narcissus species**
<i>Nerium</i> spp.	Oleander
<i>Olea europaea</i>	Olive*
<i>Ophiopogon japonicus</i>	Mondo Grass
<i>Osteospermum fruticosum</i>	Trailing African Daisy
<i>Oxydendrum arboreum</i>	Sourwood
<i>Persea americana</i>	Avocado*

\*Do not use on food producing trees, vines, or plants.

\*\*Not for use on container grown plants.

Scientific name	Common name
<i>Photinia fraseri</i>	Frasier's Photinia (Redtip)
<i>Picea</i> spp.	Spruce species** (Colorado Blue, Norway, etc.)
<i>Pieris japonica</i>	Lily-of-the-Valley Shrub
<i>Pinus brutia</i>	Calabrian Pine
<i>Pinus canariensis</i>	Canary Island Pine
<i>Pinus elliottii</i>	Slash Pine
<i>Pinus halepensis</i>	Aleppo Pine
<i>Pinus nigra</i>	Austrian Black Pine
<i>Pinus palustris</i>	Longleaf Pine
<i>Pinus radiata</i>	Monterey Pine
<i>Pinus strobus</i>	Eastern White Pine
<i>Pinus sylvestris</i>	Scotch Pine
<i>Pinus taeda</i>	Loblolly Pine
<i>Pinus thunbergiana</i>	Japanese Black Pine
<i>Pinus virginiana</i>	Virginia Pine
<i>Pistacia</i> spp.	Pistachio*
<i>Pittosporum rhombifolium</i>	Queensland Pittosporum
<i>Pittosporum tobira</i>	Japanese Pittosporum
<i>Podocarpus macrophyllus</i>	Japanese Yew
<i>Prunus laurocerasus</i>	English Laurel
<i>Prunus</i> spp.	Almond, Apricot, Nectarine, Peach, Plum and Prune*
<i>Pseudotsuga menziesii</i>	Douglas Fir**
<i>Pyracantha coccinea</i>	Firethorn Scarlet
<i>Pyracantha fortuneana</i>	Firethorn
<i>Pyracantha koidzumii</i>	Firethorn
<i>Pyrus</i> spp.	Bradford Pear spp.
<i>Quercus rubra</i>	Oak species
<i>Raphiolepis indica</i>	Indian Hawthorne
<i>Rhododendron</i> (including Azalea)	'Coral Bells'
	'Formosa'
	'Hino-crimson'
	'PJM'
	'Roseum Elegans'
<i>Rosa banksiae</i>	Lady Bank's Rose
<i>Rosmarinus officinalis</i>	Rosemary*
<i>Rumohra adiantiformis</i>	Leatherleaf Fern
<i>Santolina virens</i>	
<i>Sedum album</i>	Stonecrop
<i>Syzygium paniculatum</i>	Japanese Boxcherry

\*Do not use on food producing trees, vines, or plants.

\*\*Not for use on container grown plants.

Scientific name	Common name
<i>Taxus cuspidata</i>	Japanese Yew
<i>Taxus media</i>	Yew
<i>Thuja occidentalis</i>	American Arborvitae
<i>Trachelospermum asiaticum</i>	Star Jasmine
<i>Tsuga canadensis</i>	Canada Hemlock
<i>Tulipa</i> spp.	Tulip species
<i>Viburnum japonicum</i>	Japanese Viburnum
<i>Viburnum odoratissimum</i>	Sweet Viburnum
<i>Viburnum plicatum</i>	Japanese Snowball
<i>Viburnum rigidum</i>	Canary Island Viburnum
<i>Viburnum tinus</i>	Laurustinus
<i>Viburnum trilobum</i>	Cranberry Bush
<i>Viburnum wrightii</i>	Leatherleaf Viburnum
<i>Vinca major</i>	Vinca
<i>Vinca minor</i>	Dwarf Periwinkle
<i>Vitis</i> spp.	Grape*
<i>Weigela florida</i>	Old Fashioned Weigela
<i>Yucca aloifolia</i>	Spanish Bayonet
<i>Yucca filamentosa</i>	Yucca, Adam's Needle

\*Do not use on food producing trees, vines, or plants.

\*\*Not for use on container grown plants.

**Table 2 - Tolerant Ornamental Species/Varieties - All States Except CA**

<b>Scientific name</b>	<b>Common name</b>
<i>Abelia grandiflora</i>	Abelia: Sherwood
<i>Achillea</i> spp.	Yarrow: King Edward
<i>Agapanthus orientalis</i>	
<i>Akebia quinata</i>	Five-Leaf or Chocolate Vine
<i>Allium cernuum</i>	Lady's Leek, Nodding Onion
<i>Anemone hybrida</i>	Japanese Anemone
<i>Aquilegia</i> spp.	Aquilegia: Red and Gold
<i>Artemisia</i> spp.	Wormwood; Silver Mound, Castle
<i>Aster</i> spp.	Aster: Bonny Blue, Purple Dome
<i>Aster X frikartii</i>	
<i>Athyrium filix-femina</i>	Lady Fern; Fern Lady
<i>Begonia</i> spp.	Fibrous Begonia: Hardy Grandis
<i>Bergenia cordifolia</i>	
<i>Boltonia asteroides</i>	Snowbank
<i>Bougainvillea</i> spp.	Bougainvillea
<i>Buddleia davidii</i>	Butterfly-Bush (Dwarf Blue); Royal Red
<i>Callistemon citrinus</i>	Crimson Bottlebrush
<i>Campanula carpatica</i>	Tussock Bellflower; (White Clips)
<i>Campis X tagliabuana</i>	Trumpet Creeper, Trumpet Flower; Madame Galen
<i>Ceratostigma plumbaginoides</i>	
<i>Chrysanthemum nipponicum</i>	
<i>Coreopsis</i> spp.	Coreopsis (Calliopsis): Early Sunrise, Moonbeam
<i>Crocasmia</i> spp.	Lucifer
<i>Delosperma</i> spp.	Cooperi Pink
<i>Delphinium</i> spp.	Larkspur; Blue Elf
<i>Dianthus deltoides</i>	Dianthus, Maiden Pinks 'Zing'
<i>Dianthus gratianopolitanus</i>	Cheddar Pink
<i>Echinacea pupurea</i>	Coneflower, Purple; Magnus
<i>Forsythia suspensa</i>	Weeping Forsythia
<i>Gaillardia</i> spp.	Gaillardia, Blanket Flower: 'Goblin'
<i>Gaura</i> spp.	
<i>Gentiana dahurica</i>	Gentian
<i>Geranium cinereum</i>	Cranesbill
<i>Gypsophila repens</i>	Baby's Breath
<i>Helianthemum</i> spp.	Sunrose
<i>Hemerocallis</i> spp.	Daylily: Aztec Gold, Stella De Oro, Tender Love
<i>Heucherella</i> spp.	Coral Bell; Bridget Bloom
<i>Hibiscus</i> spp.	Mallow; Disco Belle White

\*Do not use on food producing trees, vines or plants.

\*\*Not for use on container grown plants.

Scientific name	Common name
<i>Hosta plantaginea</i>	Hosta, Plantain Lily (Fragrant)
<i>Hosta sieboldiana</i>	Hosta, 'Searsucker'
<i>Houttuynia cordata</i> var. <i>variegata</i>	
<i>Hydrangea macrophylla</i>	Bigleaf Hydrangea
<i>Inula ensifolia</i>	
<i>Iris ensata</i>	Sword-Leaved Iris; Jodlesong
<i>Iris siberica</i>	Siberian Iris; Cabernet
<i>Juniperus davurica</i>	Parsoni
<i>Lagerstromia indica</i> x <i>fauriei</i>	Crape Myrtle; Tuscarora
<i>Lantana montevidensis</i>	Weeping Lantana
<i>Lavender</i> spp.	Lavender; Munstead
<i>Leontopodium alpinum</i>	Edelweiss
<i>Ligustrum sinense</i>	Chinese Privet; Variegata
<i>Lilium</i> spp.	Lily: Jazz
<i>Liriodendron muscari</i> var. <i>variegata</i>	Liriodendron, Variegated
<i>Liriodendron spicata</i>	Liriodendron, Creeping
<i>Lobelia cardinalis</i>	Cardinal Flower, Indian Pink
<i>Loropetalum chinense</i>	Burgundy
<i>Lythrum</i> spp.	Loosestrife; Modern Pink
<i>Miscanthus sinensis</i>	Yaku Jima, Silberfeder
<i>Oenothera missouriensis</i>	Evening Primrose
<i>Osmanthus heterophyllus</i>	Osmanthus (False Holly): Gulf Tide
<i>Paeonia suffruticosa</i>	Tree Peony
<i>Pennisetum setaceum</i>	Fountain Grass (Dwarf)
<i>Perovskia atriplicifolia</i>	
<i>Physostegia virginiana</i>	Dragonhead, False; Vivid
<i>Quercus shumardii</i>	Oak, Shumard's Red
<i>Raphiolepis umbellata</i>	Yedda Hawthorne
<i>Rhododendron</i> (including azalea)	'Delaware Valley White'
	'Flame Creeper'
	'Girard Crimson'
	'George L. Tabor'
	Wakeiebisu
	White Gumpo
<i>Rudbeckia</i> spp.	Black-Eyed Susan: Goldstrum
<i>Saxifraga</i> spp.	Saxifrage; Purple Dome
<i>Scabiosa</i> spp.	Pincushion Flower
<i>Sedum caudicicola</i>	Stonecrop; Lidakense
<i>Sedum dasyphyllum</i>	Stonecrop

\*Do not use on food producing trees, vines or plants.

\*\*Not for use on container grown plants.

Scientific name	Common name
<i>Sedum spurium</i>	Stonecrop; Dragon's Blood
<i>Spiraea bumalda</i>	Spirea: Anthony Waterer
<i>Syzyglum paniculatum</i>	Australian Brushcherry
<i>Teucrium</i> spp.	Germander
<i>Thalictrum dipterocarpum</i>	Meadow Rue
<i>Veronica</i> spp.	Veronica, Speedwell; Sunny Border
<i>Viburnum suspensum</i>	Arrowood Viburnum

\*Do not use on food producing trees, vines or plants.

\*\*Not for use on container grown plants.

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## CONIFER AND HARDWOOD SEEDLING NURSERIES

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Barricade G may be applied for residual preemergence weed control in conifer and hardwood seedling nurseries.

Barricade G may be applied to conifer and hardwood seedling nurseries any time after the soil has settled around newly transplanted seedlings, liners, or bare root plants.

Apply Barricade G at 33-75 lbs./A in fall and/or spring. Use higher rates of application for longer control periods. Sequential applications may be made so long as the total amount of product applied does not exceed the maximum annual application rate of 75 lbs./A.

**Southern Pine Seedbeds:** To assist in the establishment of Southern pine seedbeds, a preemergence application should be made just after seeding. Applications made after emergence of the pine seedlings should not be made until a minimum of three weeks after the time when most seedlings have shed their seedcoat. Pines are tolerant to preemergence and postemergence applications of Barricade G.

**Dosage:** Apply 25 lbs. (0.50 lb. active) of Barricade G per broadcast acre. Broadcast to beds and irrigate with approximately  $\frac{1}{2}$  inch of sprinkler irrigation.

Most effective weed control will be obtained when Barricade G is activated by at least 0.5 inch of rainfall or irrigation prior to weed seed germination and within 14 days following application.

**Hardwood Seedbeds:** Apply Barricade G at a rate of 25 to 50 lbs. (0.50 to 1.0 lb. active) to the following seedlings that are at least 6 weeks old (from time of 50% germination):

- Oak (*Quercus* spp.)
- Sweetgum
- Green Ash

Use higher rate (50 lbs.) when a longer control period (3 to 4 months) is desired or under conditions of higher anticipated weed pressure. The lower rate (25 lbs.) will provide 2 to 3 months of weed control. Broadcast to beds and irrigate with approximately  $\frac{1}{2}$  inch of sprinkler irrigation.

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## CUT FOLIAGE PRODUCTION

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Barricade G may be applied for residual preemergence weed control in leatherleaf fern, (*Rumohra adiantiformis*), asparagus fern (aka treefern, *Asparagus virgatus*), *Pittosporum* species, *Euonymus* species, aspidistra (*Aspidistra elatior*), and *Ruscus hypopyllum*.

Apply Barricade G to dry foliage only.

Apply Barricade G as a broadcast or directed treatment to established foliage production beds at a rate of 100-132 lbs./A in the fall followed by 2 to 3 lbs./A in the spring. The choice of rate should depend upon anticipated weed pressure and spectrum. Sequential applications may be made so long as the total amount of product applied does not exceed the maximum annual application rate of 198 lbs./A.

One half inch irrigation should be applied immediately following application to activate Barricade G in the soil and remove visible product residues.

### Application Precautions

Application of Barricade G directly to rapidly growing tissues or buds may cause deformation or injury. To reduce injury potential under these circumstances, immediately wash Barricade G from plant surfaces onto soil.

Do not apply to newly transplanted ferns until after the plants have become established and begin to grow.

### Weeds Controlled

Florida Betony  
Buttercup Oxalis  
Crabgrass species  
Common Vetch

*Stachys flordana*  
*Oxalis pes-caprae*  
*Digitaria* spp.  
*Vicia sativa*

## Weeds Suppressed

Wandering-Jew

*Zebrina pendula*

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## VEGETATION MANAGEMENT

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Barricade G may be applied to soil surfaces for preemergence control of many grass and broadleaf weeds in non-cropland areas on or surrounding:

- non-crop areas on or surrounding managed rights-of-way for transportation systems and utilities (including roadways, roadsides, railways, & equipment yards)
- facilities including substations, tankfarms, pumping stations, parking & storage areas, and ungrazed fencerows

Barricade G provides preemergence control of germinating weed seeds. Most effective weed control will be obtained when Barricade G is activated by at least 0.5 inch rainfall or irrigation, or shallow incorporation prior to weed seed germination and within 14 days following application.

Apply Barricade G at 35 lbs./A in fall and/or spring. Use higher rates of application for longer periods of control. Sequential applications may be made so long as the total amount of product applied does not exceed the maximum annual application rate of 75 lbs./A.

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## NEW PLANTINGS, REPLANTING AND CROP ROTATION

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If areas are to be seeded, do not apply Barricade G until seeded plants are up and well established.

Nursery, landscape, or non-cropland areas treated with Barricade G should be rotated only to ornamental species listed on this label for 1 year following application unless the following test has shown species safety:

Before planting a species not listed on this label it is recommended that several test strips of an indicator plant such as wheat, sorghum or corn be sown into the treated area. If the indicator plants germinate and grow normally to a height of 12 inches with normal root development, it is safe to plant.

In areas disturbed by new plantings or replanting of labeled species, it may be necessary to retreat exposed soil to maintain satisfactory weed control.



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For non-emergency (e.g. current product information) call  
Syngenta Crop Protection at 1-800-334-9481.

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SCP 879A DRAFT

Aug. 9, 1999 - Created two weed lists and two tolerant  
ornamentals lists - one does not include species  
not yet approved in CA

Revised Ingredient Statement expression per  
PR-Notice 97-1; changed Statement of Practical  
Treatment to First Aid per PR Notice 98-10.

Feb. 2001 - Syngenta name.

Sept. 2003 - FIRST AID

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000100-00879.20031001.BAR-G.879.FIRSTAID.pdf