

## Herbicide

For selective preemergence control of grass and broadleaf weeds in:

- course putting greens), lawns, and sod nurseries
- container, field-grown, and landscape ornamentals
- plantings
   Christmas tree farms

Active Ingredient: Prodiamine\* . . . 40.7% Other Ingredients: 59.3% Total: 100.0%

\*CAS No. 29091-21-2

Barricade 4FL contains 4 pounds active ingredient per gallon.

# KEEP OUT OF REACH OF CHILDREN. AUTION

See additional precautionary statements and directions for use inside booklet. Product of the United Kingdom Formulated in the USA

SCP 1139A-L1 1001

1 gallon

U.S. Standard Measure

syngenta

FIRST AID		
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 a poison control center or doctor.		
Do not give anything by mouth to an unconscious or convulsing person.		
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.		
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 treatment advice.		
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.		
he product container or label with you when calling a poison control center or doctor, or going for treatment.		
HOT LINE NUMBER		
For 24 Hour Medical Emergency Assistance (Human or Animal) or Chemical Emergency Assistance (Spill, Leak, Fire, or Accident) Call 1-800-888-8372		

## **PRECAUTIONARY STATEMENTS**

# Hazards to Humans and Domestic Animals CAUTION

May be harmful if swallowed, absorbed through skin, or inhaled. Avoid breathing vapor. Avoid contact with skin, eyes, or clothing. Prolonged or frequently repeated skin contact, while mixing or handling the concentrated material, may cause allergic reactions in some individuals. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash clothing before reuse.

#### **Personal Protective Equipment**

#### WPS Uses:

Applicators, mixers, loaders, and other handlers 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
- Shoes plus socks

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 Control 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.

**IMPORTANT:** When reduced PPE is worn because a closed system is being used, handlers must be provided with all of the PPE specified above for applicators and other handlers, and have such PPE immediately available for use in an emergency, such as a spill or equipment breakdown.

#### **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 remove PPE, wash yourself 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.

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

**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
- Chemical-resistant gloves such as butyl rubber >14 mils or natural rubber >14 mils or neoprene rubber >14 mils or nitrile rubber >14 mils
- Shoes plus socks

## STORAGE AND DISPOSAL

#### Storage

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

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

#### **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**

Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of container in a sanitary landfill, or incinerate, or burn if allowed by state and local authorities. Stay out of smoke from burning container.

#### Chemigation

Do not apply this product through any type of irrigation system unless instructed otherwise in this label

#### **GENERAL INFORMATION**

#### WHERE TO USE

Barricade 4FL is a selective preemergence herbicide that provides residual control of many grass and broadleaf weeds in:

- established turfgrasses (excluding golf course putting greens), lawns, and sod nurseries
- container, field-grown, and landscape ornamentals
- hardwood seedling nurseries
- established perennial and wildflower plantings
- Christmas tree farms

#### HOW BARRICADE 4FL WORKS

Barricade 4FL controls susceptible weeds by preventing growth and development of newly germinated weeds. Weed control is most effective when Barricade 4FL is activated by at least 0.5 inch of rainfall or irrigation or shallow incorporation (1-2 inches) before weed seeds germinate and within 14 days following application.

#### **USE PRECAUTIONS**

- 1. Do not graze or feed livestock forage cut from areas treated with Barricade 4FL.
- 2. Follow all applicable directions, restrictions, and precautions on the labels of EPA-registered tank mix partners.
- 3. Do not blend Barricade 4FL onto dry fertilizer or any other granular material.
- 4. **Chemigation:** Do not apply this product through any type of irrigation system unless instructed otherwise in this label.
- 5. Do not apply aerially.
- 6. Do not apply to golf course putting greens.

#### MIXING AND APPLICATION PROCEDURES

#### **MIXING BARRICADE 4FL ALONE**

Barricade 4FL must be mixed thoroughly in the spray tank to ensure uniform application. Follow these steps.

- 1. Fill the spray tank 1/4 full with clean water only.
- 2. Start agitation and check to ensure it is working properly.
- 3. For tank mixing instructions, refer to the section "Mixing Order for Tank Mixtures."
- 4. Maintain vigorous agitation in the spray tank before and during the application. This will ensure a well-mixed spray suspension. If Barricade 4FL was mixed with fertilizer in the spray tank, the fertilizer may aid resuspension of Barricade 4FL if agitation is disrupted. However, it is recommended that the entire tank be used before stopping agitation.
- 5. A spray colorant may be used with Barricade 4FL to mark areas as they are treated. This will improve application accuracy by minimizing swath skips and overlaps.
- 6. Thoroughly clean the sprayer after use by flushing the system with water containing a detergent.
- Refer to the **Pesticide Disposal** section of this label for waste disposal. Do not allow spray suspension to dry in the tank.

#### TANK MIXING BARRICADE 4FL

Barricade 4FL may be tank mixed with certain other EPA-registered herbicides to provide a broader spectrum of weed control or to control emerged weeds. Refer to the specific directions for use for tank mix partners, and refer to the label(s) of the individual tank mix partner(s) for use rate, application timing, weeds controlled, and specific precautions and/or restrictions. Tank mixes are permitted only in states where the tank mix partner(s) are registered for the application site and the turf and ornamental species listed. When using Barricade 4FL in a tank mixture with other pesticides, follow restrictions and precautions on the labels of the products used.

Before tank mixing pesticides, test compatibility by mixing the products in a small container first. See the **Compatibility Test** section.

#### **COMPATIBILITY TEST**

Before mixing Barricade 4FL with other pesticides in the spray tank, test for compatibility by mixing all components (carrier and pesticide products) in an appropriate container in proportionate quantities. For example, 1 qt. would be 1/100 the volume of a 25 gals./A spray rate. At 1.0 lb./A, the Barricade 4FL rate would be proportional to 6 ml. per quart. Add approximately 1 teaspoon to a quart of water. (See following table.)

# Amount of Component to Add to One Quart of Spray Carrier (Assuming Carrier Volume of 25 gals./A)

Rate Per			
Component Formulations	Acre	1,000 sq. ft.	Level Teaspoons
Barricade 4FL	21.0 ozs.	0.5 oz.	1.0
Dry Tank Mix Partners	1.0 lb.	0.4 oz.	1.5
Liquid Tank Mix Partners	1.0 pt.	0.4 oz.	0.5

If components do not ball-up or form flakes, sludge, gels, oily films, or layers, then the mixture is compatible. Let the mixture stand for 15 minutes. Incompatibility will usually occur within 5 minutes after mixing. If components are not compatible, use a compatibility agent and rerun the test to determine if the mixture is suitable. If the components are still not compatible, do not tank mix.

#### MIXING ORDER FOR TANK MIXTURES

**Notes:** (1) When mixing Barricade 4FL with other components (carrier and partner pesticide products), allow products to completely dissolve between steps. (2) Maintain agitation throughout mixing and application of the mixture.

#### Add the products to the spray tank in the following order:

- Add products packaged in water-soluble bags first. Agitate the tank mixture. Allow the water-soluble bags to completely dissolve and the products to disperse before adding any other tank mix partners.
- Then add water-dispersible granules (WDG or WG formulations) and wettable powders (WP formulations). Add wettable powders to the tank as agitation continues. Allow the product to disperse completely before other products are added.
- Add spray adjuvants and spray markers. Read the adjuvant's label first and use only those adjuvants approved for application to turf and ornamentals.
- 4. Add Barricade 4FL, other flowable liquids (FL) or suspension concentrates (SC).
- 5. Add emulsifiable concentrates (EC) last.

#### **APPLICATION**

Apply Barricade 4FL in a minimum of 20 gals./A (0.5 gal./1,000 sq. ft.) of carrier (water and/or fluid fertilizer) using a calibrated, low-pressure sprayer with 50-mesh or coarser screens. A broadcast boom or handheld wand designed for herbicide or insecticide application will provide the best results. Select nozzle pressure and gallonage to provide complete coverage.

#### **SPECIFIC USE DIRECTIONS**

#### **ESTABLISHED TURF**

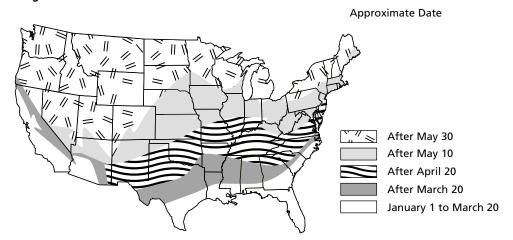
Barricade 4FL is a selective preemergence herbicide that, when properly applied, will control certain grass and broadleaf weeds in established turfgrasses including:

- · Golf courses excluding putting greens
- Lawns
- Sod nurseries

The maximum amount of Barricade 4FL that may be applied per year is given for each turfgrass species in the **Annual Use Rates** section of this label.

For optimum weed control, Barricade 4FL should be activated by at least 0.5 inch of rainfall or irrigation before weed seeds germinate and within 14 days following application. See the map below for approximate crabgrass seed germination dates.

#### **Crabgrass Seed Germination Dates**



#### Use Precautions - Turfgrass: Golf Courses, Lawns, and Sod Nurseries

- Do not apply Barricade 4FL to areas where dichondra, colonial bentgrass, velvet bentgrass or annual bluegrass (Poa annua) are desirable species.
- 2. Do not cut (harvest) treated sod before 90 days after application. To avoid turfgrass injury, do not apply to newly set sod until the sod has rooted and exposed edges have filled in.
- 3. To avoid turfgrass injury do not apply Barricade 4FL to turf stressed by conditions such as drought, low fertility, or pest damage.
- 4. Disturbing the herbicide barrier with cultural practices such as disking may result in reduced weed control.
- 5. Do not apply Barricade 4FL to golf course putting greens.
- If you consistently mow creeping bentgrass at a height of less than 0.5 inch do not apply Barricade 4FL.

#### **Application Timing And Rate - Turfgrass**

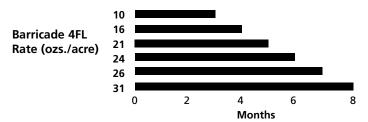
Barricade 4FL may be applied as a single application or in sequential applications to control weeds germinating throughout the year. All applications must be made before target weeds germinate because Barricade 4FL will not control weeds that have already emerged.

The amount of Barricade 4FL to apply depends upon:

- the length of residual weed control desired (the higher the application rate, the longer the control),
- 2. the turf species,
- 3. the maximum amount which can be applied to the turf species per calendar year.

(See the next 2 tables.)

## Barricade 4FL, Length of Crabgrass Control\*



<sup>\*</sup>Length of control varies by region. This table is an average.

#### **Annual Use Rates - Turfgrass**

Barricade 4FL can be applied to the turfgrass species listed in the following table. **Note:** Do not apply more than the highest rate listed for each species in a calendar year.

Maximum Application Rate of Barricade Per Calendar Year by Turf Species		
Turf Species	Oz. Product/A	Oz. Product/1,000 sq. ft.
Bermudagrass <sup>2</sup> Bahiagrass Centipedegrass Kikuyugrass Seashore Paspalum St. Augustinegrass <sup>3</sup> Tall Fescue (including turf-type) Zoysiagrass	21-481	0.5-1.1
Buffalograss Kentucky Bluegrass Perennial Ryegrass	10-30 <sup>1</sup>	0.23-0.70
Fine Fescue	10-24 <sup>1</sup>	0.23-0.55
Creeping Bentgrass (0.5 inch or more in height <sup>4</sup> )	10-21 <sup>1</sup>	0.23-0.48

Barricade 4FL may be applied more than once a year as long as the total amount applied is not greater than the maximum application rate for each turf species. All applications must be made before weed seeds germinate.

#### **Weeds Controlled**

When used as directed in this label, Barricade 4FL will control the following weeds:

Barnvardarass Kochia

Bluegrass, Annual (Poa annua)1 Lambsquarters, Common

Carpetweed Lovegrass

Chickweed, Common<sup>2</sup> Panicum, (Texas, Fall, Chickweed, Mouseear (from seed) Browntop)

Crabgrass (Large, Smooth)3 Pigweed

Crowfootgrass Purslane, Common Cupgrass, Woolly Pusley, Florida Rescuegrass<sup>4</sup> Foxtails, Annual Goosegrass<sup>5</sup> Shepherdspurse<sup>2</sup> Henbit<sup>2</sup> Signalgrass, Broadleaf Itchgrass Speedwell, Persian Johnsongrass (from seed) Sprangletop Junalerice Spurge, Prostrate

Knotweed<sup>2</sup> Witchgrass

Woodsorrel, Yellow (from seed)

- <sup>2</sup> To control this weed, apply Barricade 4FL in late summer, fall, or winter before weeds germinate.
- <sup>3</sup> Fall Applications for Spring Crabgrass Control in Cool-Season Grasses: In those areas where the ground freezes in the winter, Barricade 4FL can be applied in the fall at rates of 21-24 ozs./A after soil temperatures fall below 50°F, but before the ground freezes. This application will control crabgrass the following spring.
- <sup>4</sup> Suppression only.
- <sup>5</sup> In many areas a single application of 21-48 ozs./A of Barricade 4FL will control goosegrass. However, under heavy goosegrass pressure and/or an extended growing season, weed control will be most effective by making an initial application of 21-26 ozs./A followed by a second application 60-90 days later. Note: Do not exceed the maximum rate for the turf species listed in the Maximum **Application Rates Table.**

<sup>&</sup>lt;sup>2</sup> May be used on newly sprigged or plugged bermudagrass at rates not to exceed 17 ozs./A (0.39 oz./1,000 sq. ft.). Newly sprigged or plugged bermudagrass stolon rooting may be temporarily inhibited.

<sup>&</sup>lt;sup>3</sup> Use an initial rate of 16-32 ozs./A per application.

 $<sup>^4</sup>$  To avoid grass injury, do not apply Barricade 4FL to creeping bentgrass mowed at less than 0.5 inch in height.

<sup>&</sup>lt;sup>1</sup> In those areas where *Poa annua* is a winter annual, apply Barricade 4FL (see rate table) in August or September to established, non-overseeded turf before *Poa annua* seeds germinate. These timings are approximate. Consult State Extension Service for more specific timing for your area. Also see the section of this label Poa annua Control in Established Bermudagrass Overseeded with Perennial Ryegrass (AZ, CA, NV, and TX Only)

### When to Apply Barricade 4FL After Overseeding Turf

Injury to desirable seedlings is likely if Barricade 4FL is applied before the secondary roots of seedlings are in the second inch of soil, not thatch plus soil. To reduce the potential to injure overseeded turf, wait 60 days after seeding or until after the second mowing, whichever is longer, before applying Barricade 4FL.

#### When to Overseed After Application - All States

Barricade 4FL will inhibit the development of turfgrass species overseeded too soon after application. Follow rates and intervals in the table below for best overseeding/reseeding results.

\*Note: In AZ, CA, NV, and TX the overseeding interval can be shorter in established bermudagrass that has been overseeded with perennial ryegrass. See the next section, Poa Annua Control in Established Bermudagrass Overseeded with Perennial Ryegrass (AZ, CA, NV, and TX only).

Amount of Barricade 4FL	Interval (I	Months Before Over	seeding)*
Ozs. Product/A	North	Transition	South
16	4	4	4
21	5	4	4
24	6	5	5
26	_	6	6
31	_	7	7
36	_	_	9
42	_	_	10
48	_	_	12

# Poa Annua Control in Established Bermudagrass Overseeded with Perennial Ryegrass (AZ, CA, NV, and TX only)

Use on golf courses (excluding golf course putting greens), lawns, and sod nurseries when overseeding with perennial rye grass. (Minimum seeding rate of 350 lbs./A.)

#### How Much Barricade 4FL and When to Apply

Amount to Apply	When to Apply	Expected Control	Use Precautions
12-21 ozs./A*	6-8 weeks <b>before</b> ryegrass overseeding	1 application for 70% or greater control of <i>Poa</i> <i>annua</i>	Some seedling mortality and temporary reduction in root growth of new seedlings may occur.
	second application: 4-8 weeks after overseeding or	second application may enhance control	To reduce the potential for seedling mortality maintain a moist seedbed with light, frequent irrigation.
	when perennial ryegrass roots are in the second inch of soil		3. Make no more than 2 applications per year for this use, and do not exceed a total of 27 ozs./A per year.
			4. Do not make a second application if any injury to the ryegrass is observed after the first application.
			5. Do not make a second application unless the product was first applied before overseeding.

<sup>\*</sup>The amount of Barricade 4FL to apply depends upon: the length of residual control desired (the higher the application rate, the longer the control). **Note:** The higher the rate, the greater the potential for seedling mortality.

# CONTAINER, FIELD-GROWN, AND LANDSCAPE ORNAMENTAL PLANTINGS (INCLUDING CHRISTMAS TREE FARMS)

#### Application, Timing, and Information

#### Barricade 4FL:

- 1. Will not control emerged weeds.
- 2. May be applied to newly-transplanted and established ornamentals as a broadcast or over-the-top spray.
- 3. Is most effective when applied to soil free of clods, weeds, and debris such as leaves and mulch.
- 4. Is most effective when the product is activated in the soil before weed seeds germinate and within 14 days after application.
- 5. Is activated when the treated area receives at least 0.5 inch of irrigation or rainfall, or shallow (1 to 2 inches) mechanical incorporation.

#### **Use Precautions**

#### To reduce injury potential:

- 1. Direct application of Barricade 4FL to rapidly growing tissue or buds may injure desirable plants. In the spring when buds are rapidly growing and expanding, over-the-top application of Barricade 4FL may injure new growth of desirable plants, however, these effects are temporary. To reduce the possibility of injury at this time, wait to apply Barricade 4FL over the top of newly emerged vegetation until it has hardened off, unless your experience indicates that the ornamental plant will not be injured by the over-the-top application.
- 2. After application immediately apply overhead irrigation to the foliage to wash Barricade 4FL from plant surfaces onto soil (watering the foliage of plants before application may improve the washing process).

#### **Ornamental and Christmas Tree Farms - Application Sites and Instructions**

Site	Application Instructions
Newly-Transplanted Container or Field	Delay application until soil has settled around transplants.
Nursery Stock	2. Water transplants thoroughly before application.
	3. Apply after cuttings form roots and are established.
	<ol> <li>To avoid inhibition of the tissue union, apply before budding/grafting or after buds/grafts have taken.</li> </ol>
Established Container, Field Nursery Stock, or Landscape Plants	<ol> <li>Apply at any time as a broadcast, over-the-top, or directed spray.</li> </ol>
Landscape (or Ornamental) Plantings	Apply as a broadcast, over-the-top, or as a directed spray.
	<ol><li>Delay applications to newly transplanted ornamentals until soil has settled around transplants.</li></ol>
Bare Ground Application for Container Placement	<ol> <li>Apply to soil (including mulch, gravel, wood chips, or other permeable base) upon which containerized ornamentals are placed.</li> <li>After Barricade 4FL is applied, perform shallow cultivation or hand weeding only, to avoid disturbing the herbicide barrier.</li> </ol>
In Shadehouses and Uncovered Polyhouses	<ol> <li>After Barricade 4FL is applied, uncovered polyhouses must remain open for at least 7 days and ornamentals must receive 2 irrigations totaling at least 1/2 inch of water before covering.</li> </ol>
Ornamental Bulbs and Perennial Wildflower Plantings	<ol> <li>Barricade 4FL may be applied to bulbs or perennial wildflower species listed in the section. Apply before or after bulbs emerge but before bulbs bloom and weeds emerge.</li> <li>In wildflowers, a postemergence herbicide labeled for wildflowers may be needed to control weeds that have already emerged.</li> </ol>

#### How Much Barricade 4FL and When to Apply - Ornamentals

Amount to Apply (Broadcast)*	When to Apply	Comments/Instructions
21-48 ozs./A or 0.5-1.1 ozs./1,000 sq. ft.	In fall or spring before weeds germinate or after weeds are removed.	1. Use the higher rate for longer control.  2. Barricade 4FL may be applied more than once per year as long as the total amount of product applied does not exceed 48 ozs./A per year.

\*NOTE: For band application, calculate amount per acre:

Band width in inches
Row width in inches

broadcast rate = amount to apply/acre of field

#### **Equivalent Measurements for Barricade 4FL**

ozs./A	ozs./1,000 sq. ft	Approximate Equivalent - Tablespoons/1,000 sq. ft.
21	0.5	1.0
31	0.7	1.5
42	1.0	2.0
48	1.1	2.25

#### **Tank Mixtures For Use On Ornamentals**

Barricade 4FL may be tank mixed with other registered herbicides listed on this label to provide a broader spectrum of weed control or to control emerged weeds. Tank mixes with Barricade 4FL are for use only in states where the tank mix partner(s), application site and intended use pattern are registered.

Follow the label directions of the tank mix partner(s) for application rates, timing, weeds controlled, tolerant ornamentals, and specific use precautions and/or restrictions. Before combining a tank mix partner in the spray tank, test for compatibility as described on this label.

Tank Mix Partners for Barricade 4FL on Ornamentals

Product	Precautions/Instructions
Goal® (use on conifers only)	Mix with Barricade 4FL for postemergence control of certain broadleaf weeds including malva and filaree.
Gallery®, Princep®, Pennant Magnum®	See product labels for weed spectrum and tolerant ornamentals.
Touchdown Pro®, Roundup® or other glyphosate-based products, Finale®	<ol> <li>These nonselective tank mix herbicides control many emerged annual broadleaves and grasses.</li> <li>Take extreme care to prevent tank mixtures with these partner products from contacting the foliage and stems of turfgrass, trees, shrubs, or other desirable vegetation because desirable vegetation may be severely injured or killed. Apply these tank mixtures as a directed spray and use a shield to prevent spray from contacting foliage of desirable plants.</li> <li>Following instructions on the tank mix partner's label, delay irrigation of the treated area to allow time for the herbicide to be absorbed by weed foliage.</li> </ol>

#### **Tolerant Ornamental Species**

The species listed below in Table 1 are tolerant to Barricade. Barricade 4FL may be used for application, except in CA, to the species in Table 2. Barricade 4FL may be applied over the top of the listed species. The species that are not tolerant to Barricade when grown in containers are indicated.

When plants are under stress (such as heat, drought, or frost damage), some cultivars of listed plants may be sensitive to Barricade 4FL.

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

Scientific name	Common name	
Abies spp.	Fir species**	
	(Balsam, Fraser, Noble, etc.)	
Acer palmatum	Japanese Maple	
Acer platanoides	Norway Maple	
Actinidia chinensis	Kiwi*	
Agapanthus africanus	Lily-of-the-Nile (African Lily)	
Arctostaphylos densiflora	Vine Hill Manzanita	
Arctotheca calendula	Cape Weed	
Aucuba japonica	Japanese Aucuba	
Berberis gladwynensis	Barberry	
Berberis julianae	Wintergreen Barberry	
Berberis mentorensis	Mentor Barberry	
Berberis thunbergii	Japanese Barberry	
Berberis verruculosa	Warty Barberry	
Buxus microphylla	Japanese Boxwood	
Callistemon viminalis	Weeping Bottlebrush	
Calluna vulgaris	Scotch Heather	
Carpobrotus edulis	Hottentot Fig (Ice Plant)	
Cassia artemisioides	Feathery Cassia	

<sup>\*</sup>Do not use on food producing trees, vines, or plants.

<sup>\*\*</sup>Not for use on container grown plants.

Table 1. (continued)

Table 1. (continued)	
Scientific name	Common name
Ceanothus rigidus	Wild Lilac
Chamaecyparis pisifera	False Cypress
Cleyera japonica	Cleyera
Citrus spp.	Citrus species*
Cornus florida	Flowering Dogwood
Cornus stolonifera	American Dogwood
Cortaderia selloana	Pampas Grass
Cotoneaster apiculatus	Cranberry Cotoneaster
Cotoneaster buxifolius	Cotoneaster
Cotoneaster dammeri	Bearberry Cotoneaster
Cotoneaster microphyllus	Rockspray Cotoneaster
Crataegus spp.	Hawthorne
Cupressus sempervirens	Italian Cypress
Delosperma alba	White Trailing Ice Plant
Dodonea viscosa	Hop Bush
Elaeagnus pungens	Silverberry
Euonymus fortunei	Wintercreeper
Euonymus japonica	Japanese Spindle Tree (Evergreen Euonymus)
Euonymus kiautschovicka	Spreading Euonymus
Fatsia japonica	Japanese Aralia
Forsythia intermedia Forsythia viridissima	Border Forsythia Greenstem Forsythia
Gardenia jasminoides	Gardenia, Cape-Jasmine
Gladiolus spp.	Gladiolus species**
Hedera helix	English Ivy
Hibiscus	Rose of Sharon**
Hibiscus Rosa-sinensis	Chinese Hibiscus**
Ilex cornuta	Chinese Holly**
llex crenata	Japanese Holly
llex opaca	American Holly
llex pernyi	Holly
Ilex vomitoria	Yaupon Holly
Iris spp.	Iris species**
Jasminium nudiflorum	Winter Jasmine
Juniperus chinensis	Chinese Juniper
Juniperus conferta	Shore Juniper
Juniperus horizontalis	Creeping Juniper
Juglans spp.	Walnut*
Justicia brandegeana	Shrimp Plant
Lagerstromia indica	Crape Myrtle
Ligustrum amurense	Amur Privet
Ligustrum japonicum	Japanese Privet
Ligustrum lucidum	Glossy Privet (Wax-Leaf)
Liriope muscari	Big Blue Lillyturf
Lonicera japonica	Japanese Honeysuckle
Lonicera tatarica	Tatarian Honeysuckle Magnolia species**
Magnolia spp.	lce Plant
Maleophora luteola Malus spp.	Crabapple*
Nandina domestica	Heavenly Bamboo
Narcissus spp.	Narcissus species**
Nerium spp.	Oleander
Olea europaea	Olive*
Ophiopogon japonicus	Mondo Grass**
Osteospermum fruticosum	Trailing African Daisy
Oxydendrum arboreum	Sourwood
Persea americana	Avocado*
Photinia fraseri	Frasier's Photinia (Redtip)
Picea spp.	Spruce species** (Colorado Blue, Norway, etc.)
Pieris japonica	Lily-of-the-Valley Shrub
Pinus brutia	Calabrian Pine

<sup>\*</sup>Do not use on food producing trees, vines, or plants.
\*\*Not for use on container grown plants.

Table 1. (continued)

Scientific name	Common name
Pinus canariensis	Canary Island Pine
Pinus elliottii	Slash Pine
Pinus halepensis	Aleppo Pine
Pinus nigra	Austrian Black Pine
Pinus palustrus	Longleaf Pine
Pinus radiata	Monterey Pine
Pinus strobus	Eastern White Pine
Pinus sylvestris	Scotch Pine
Pinus taeda	Loblolly Pine
Pinus thunbergiana	Japanese Black Pine
Pinus virginiana	Virginia Pine
Pistacia spp.	Pistachio*
Pittosporum rhombifolium	Queensland Pittosporum
Pittosporum tobira	Japanese Pittosporum
Podocarpus macrophyllus	Japanese Yew
Prunus laurocerasus	English Laurel
Prunus spp.	Almond, Apricot, Nectarine,
Decudateura manziasii	Peach, Plum and Prune* Douglas Fir**
Pseudotsuga menziesii Pyracantha coccinea	Firethorn Scarlet
Pyracantha coccinea  Pyracantha fortuneana	Firethorn
Pyracantha koidzumii	Firethorn
Pyrus spp.	Bradford Pear spp.
Quercus rubra	Oak species
Raphiolepsis indica	Indian Hawthorne
Rhododendron	'Coral Bells'
(including Azalea)	'Formosa'
(	'Hino-crimson'
	'PJM'
	'Roseum Elegans'
Rosa banksiae	Lady Bank's Rose
Rosmarinus officinalis	Rosemary*
Rumohra adiantiformis	Leatherleaf Fern
Santolina virens	
Sedum album	Stonecrop
Syzygium paniculatum	Japanese Boxcherry
Taxus cuspidata	Japanese Yew
Taxus media	Yew
Thuja occidentalis	American Arborvitae
Trachelospermum asiatum	Star Jasmine
Tsuga canadensis	Canada Hemlock
Tulipa spp.	Tulip species
Viburnum japonicum	Japanese Viburnum
Viburnum odoratissimum	Sweet Viburnum
Viburnum plicatum	Japanese Snowball
Viburnum rigidum	Canary Island Viburnum
Viburnum tinus	Laurustinus
Viburnum trilobium	Cranberry Bush
Viburnum wrightii	Leatherleaf Viburnum
Vinca major	Vinca
Vinca minor	Dwarf Periwinkle
Vitis spp.	Grape*
Weigela florida	Old Fashioned Weigela
Yucca aloifolia	Spanish Bayonet
Yucca filamentosa	Yucca, Adam's Needle

<sup>\*</sup>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

Scientific name	Common name
Abelia grandiflora	Abelia: Sherwood
Achillea spp.	Yarrow: King Edward
Agapanthus orientalis	
Akebia quintata	Five-Leaf or Chocolate Vine
Allium cernuum	Lady's Leek, Nodding Onion
Anemone hybrida	Japanese Anemone
Aquilegia spp.	Aquilegia: Red and Gold
Artemisia spp.	Wormwood; Silver Mound, Castle
Aster spp.	Aster: Bonny Blue, Purple Dome
Aster X frikartii	
Athyrium filix-femina	Lady Fern; Fern Lady
Begonia spp.	Fibrous Begonia: Hardy Grandis
Bergenia cordifolia	
Boltonia asteroides	Snowbank
Bougainvillea spp.	Bougainvillea
Buddleia davidii	Butterfly-Bush (Dwarf Blue); Royal Red
Callistemon citrinus	Crimson Bottlebrush
Campanula carpatica	Tussock Bellflower; (White Clips)
Campis X tagliabuana	Trumpet Creeper, Trumpet Flower; Madame Galer
Ceratostigma plumbaginoides	
Chrysanthemum nipponicum	Corporais (Calliansis), Farly Symrisa, Maanhaam
Coreopsis spp. Crocosmia spp.	Coreopsis (Calliopsis): Early Sunrise, Moonbeam Lucifer
Delosperma spp.	Cooperi Pink
Delosperma spp. Delphinium spp.	Larkspur; Blue Elf
Dianthus deltoides	Dianthus, Maiden Pinks 'Zing'
Dianthus gratianopolitanus	Cheddar Pink
Echinacea purpurea	Coneflower, Purple; Magnus
Forsythia suspensa	Weeping Forsythia
Gaillardia spp.	Gaillardia, Blanket Flower: 'Goblin'
Gaura spp.	
Gentiana dahurica	Gentian
Geranium cinereum	Cranesbill
Gypsophila repens	Baby's Breath
Helianthemum spp.	Sunrose
Hemerocallis spp.	Daylily: Aztec Gold, Stella De Oro, Tender Love
Heucherella spp.	Coral Bell; Bridget Bloom
Hibiscus spp.	Mallow; Disco Belle White
Hosta plantaginea	Hosta, Plantain Lily (Fragrant)
Hosta sieboldiana	Hosta, 'Searsucker'
Houttuynia cordata	
var. variegata	
Hydrangea macrophylla	Bigleaf Hydrangea
Inula ensifolia	
Iris ensata	Sword-Leaved Iris; Jodlesong
Iris siberica	Siberian Iris; Cabernet
Juniperus davurica	Parsoni
Lagerstromia indica x fauriei	Crape Myrtle; Tuscarora
Lantana montevidensis	Weeping Lantana
Lavender spp.	Lavender; Munstead
Leontopodium alpinum	Edelweiss
Ligustrum sinense	Chinese Privet; Variegata
Lilium spp.	Lily: Jazz
Liriope muscari var. variegata	Liriope, Variegated
Liriope spicata Lobelia cardinalis	Liriope, Creeping Cardinal Flower, Indian Pink
Lopena cardinans Loropetalum chinense	Burgundy
•	Loosestrife; Modern Pink
	Yaku Jima**, Silberfeder**
Lythrum spp. Miscanthus sinensis	
Miscanthus sinensis	
Miscanthus sinensis Oenothera missourensis	Evening Primrose
Miscanthus sinensis	

<sup>\*\*</sup>Not for use on container grown plants.

Table 2. (continued)

Scientific name	Common name	
Perovskia atriplicifolia		
Physostegia virginiana	Dragonhead, False; Vivid	
Quercus shumardii	Oak, Shumard's Red	
Raphiolepsis umbellata	Yedda Hawthorne	
Rhododendron	'Delaware Valley White'	
(including Azalea)	'Flame Creeper'	
,	'Girard Crimson'	
	'George L. Tabor'	
	'Wakeiebisu'	
	'White Gumpo'	
Rudbeckia spp.	Black-Eyed Susan: Goldstrum	
Saxifraga spp.	Saxifrage; Purple Dome	
Scabiosa spp.	Pincushion Flower	
Sedum cauticola	Stonecrop; Lidakense	
Sedum dasyphyllum Stonecrop		
Sedum spurium	Stonecrop; Dragon's Blood	
Spiraea bumalda	Spirea: Anthony Waterer	
Syzygium paniculatum	Australian Brushcherry	
Teucrium spp.	Germander	
Thalictrum dipterocarpum	Meadow Rue	
Veronica spp.	Veronica, Speedwell; Sunny Border	
Viburnum suspensum	Arrowood Viburnum	

<sup>\*\*</sup>Not for use on container grown plants.

#### **NEW PLANTINGS, REPLANTING AND ROTATIONAL PLANTINGS**

Nursery, landscape, or non-cropped land areas treated with Barricade 4FL 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, but do not apply more than 48 ozs./A per year.

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

Product of the United Kingdom Formulated in the USA

Syngenta Crop Protection, Inc. Greensboro, North Carolina 27409 www.syngenta-us.com

SCP 1139A-L1 1001



### Herbicide

For selective preemergence control of grass and broadleaf weeds in:

- established turfgrasses (excluding golf course putting greens), lawns, and sod
- container, field-grown, and landscape ornamentals
- hardwood seedling nurseries
- established perennial and wildflower plantings
- Christmas tree farms

Active	Ingredient:
Dradia	mino*

rioulailille	40.7 /0
Other Ingredients:	59.3%
Total:	100.0%

\*CAS No. 29091-21-2

Barricade 4FL contains 4 pounds active ingredient per gallon.

EPA Reg. No. 100-1139 EPA Est. 62171-MS-001

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SCP 1139A-L1 1001

# 1 gallon

**U.S. Standard Measure** 

# KEEP OUT OF REACH OF CHILDREN.

See additional precautionary statements and directions for use inside booklet.

#### **AGRICULTURAL USE REQUIREMENTS**

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. Refer to supplemental labeling under "Agricultural Use Requirements" in the Directions For Use section for information about this standard.

#### STORAGE AND DISPOSAL

#### Storage

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

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

#### **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**

Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of container in a sanitary landfill, or incinerate, or burn if allowed by state and local authorities. Stay out of smoke from burning container.



# KEEP OUT OF REACH OF CHILDREN. CAUTION

#### PRECAUTIONARY STATEMENTS

# Hazards to Humans and Domestic Animals CAUTION

May be harmful if swallowed, absorbed through skin, or inhaled. Avoid breathing vapor. Avoid contact with skin, eyes, or clothing. Prolonged or frequently repeated skin contact, while mixing or handling the concentrated material, may cause allergic reactions in some individuals. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash clothing before reuse.

#### **FIRST AID**

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 a poison control center or doctor. Do not give anything by mouth to an unconscious or convulsing person.

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 treatment advice.

If on skin or clothing: Take off contaminated clothing. Rinse skin immediately with plenty

of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

**HOT LINE NUMBER:** For 24 Hour Medical Emergency Assistance (Human or Animal) or Chemical Emergency Assistance (Spill, Leak, Fire, or Accident) Call **1-800-888-8372.** 

#### **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.

#### Chemigation

Do not apply this product through any type of irrigation system unless instructed otherwise in this label.

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