



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF CHEMICAL SAFETY
AND POLLUTION PREVENTION

SEP - 3 2010

Pat Dinnen
Syngenta Crop Protection, Inc.
P.O. Box 18300
Greensboro, NC 27419-8300

Subject: Notification of an Alternate Brand Name (Resolute 4FL) Under PR Notice 98-10
Barricade® 4SC Herbicide
EPA Reg. No. 100-1139
Application, Dated August 17, 2010

Dear Ms. Dinnen:

The Agency is in receipt of your Application for Pesticide Notification under Pesticide Registration Notice (PRN) 98-10 for the subject product. The Registration Division (RD) has conducted a review of this request for its applicability under PRN 98-10 and finds that the action requested (notification of the alternate brand name "Resolute 4FL") falls within the scope of PRN 98-10. The label submitted with the application has been date-stamped "Notification" and will be placed in our records.

If you have any questions, please call me directly at (703) 305-1243 or Susan Stanton of my staff at (703) 305-5218.

Sincerely,

A handwritten signature in cursive script that reads "Susan L. Stanton, for".

Kathryn Montague, Product Manager 23
Herbicide Branch
Registration Division (7505P)
Office of Pesticide Programs

 United States Environmental Protection Agency Washington, DC 20460	<input type="checkbox"/> Registration <input type="checkbox"/> Amendment <input checked="" type="checkbox"/> Other	OPP Identifier Number <hr/> NOTIFICATION

Application for Pesticide - Section I

1. Company/Product Number 100-1139	2. EPA Product Manager Ms. Kathryn Montague	3. Proposed Classification <input type="checkbox"/> None <input type="checkbox"/> Restricted
4. Company/Product (Name) Barricade 4FL Herbicide (alternate brand name Resolute 4FL)	PM# 23	
5. Name and Address of Applicant (Include ZIP Code) Syngenta Crop Protection, Inc. P. O. Box 18300 Greensboro, NC 27419 <input type="checkbox"/> Check if this is a new address	6. Expedited Review. In accordance with FIFRA Section 3(c)(3) (b)(i), my product is similar or identical in composition and labeling to: <div style="text-align: center; font-weight: bold; font-size: 1.2em;"> NOTIFICATION SEP 03 2010 </div> EPA Reg. No. _____ Product Name _____	

Section - II

<input type="checkbox"/> Amendment - Explain below.	<input type="checkbox"/> Final printed labels in response to Agency letter dated _____
<input type="checkbox"/> Resubmission in response to Agency letter dated _____	<input type="checkbox"/> "Me Too" Application.
<input checked="" type="checkbox"/> Notification - Explain below.	<input type="checkbox"/> Other - Explain below.

Explanation: Use additional page(s) if necessary. (For Section I and Section II.) This notification is consistent with the provisions of PR Notice 98-10 and EPA regulations at 40 CFR 152.46, and no other changes have been made to the labeling or the confidential statement of formula of this product. I understand that it is a violation of 18 U.S.C. Sec. 1001 to willfully make any false statement to EPA. I further understand that if this notification is not consistent with the terms of PR Notice 98-10 and 40 CFR 152.46, this product may be in violation of FIFRA and I may be subject to enforcement action and penalties under sections 12 and 14 of FIFRA.

Syngenta Crop Protection, Inc. is submitting Notification of an alternate brand name for Barricade 4FL, EPA Reg. No. 100-1139. The proposed alternate brand name is Resolute 4FL.

Section - III

1. Material This Product Will Be Packaged In:				2. Type of Container	
Child-Resistant Packaging <input type="checkbox"/> Yes* <input type="checkbox"/> No	Unit Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Water Soluble Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			<input type="checkbox"/> Metal <input checked="" type="checkbox"/> Plastic <input type="checkbox"/> Glass <input type="checkbox"/> Paper <input type="checkbox"/> Other (Specify) _____
<i>*Certification must be submitted</i> If "Yes" No. per If "Yes" No. per Unit Packaging wgt. Container Unit Packaging wgt. container					
3. Location of Net Contents Information <input checked="" type="checkbox"/> Label <input type="checkbox"/> Container		4. Size(s) Retail Container 1 gal., 10 gal., and 30 gal.		5. Location of Label Directions <input checked="" type="checkbox"/> On Label <input type="checkbox"/> On Labeling accompanying product	
6. Manner in Which Label is Affixed to Product <input type="checkbox"/> Lithograph <input checked="" type="checkbox"/> Other <u>Pressure Sensitive</u> <input type="checkbox"/> Paper glued <input type="checkbox"/> Stenciled					

Section - IV

1. Contact Point (Complete items directly below for identification of individual to be contacted, if necessary, to process this application.)		
Name Pat Dinnen	Title Label Group Leader	Telephone No. (Include Area Code) 336-632-2494
I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.		6. Date Application Received (Stamped) <div style="text-align: center;"> </div>
2. Signature 	3. Title Label Group Leader	
4. Typed Name Pat Dinnen	5. Date August 17, 2010	

Syngenta Crop Protection, Inc.
P.O. Box 18300
Greensboro, NC 27419-8300
www.syngenta.com



FedEx

August 17, 2010

Document Processing Desk (NOTIF)
Office of Pesticide Programs (7504P)
U.S. Environmental Protection Agency
Room S-4900, One Potomac Yard
2777 South Crystal Drive
Arlington, VA 22202-4501

Attention: Ms. Linda Arrington

**SUBJECT: BARRICADE® 4FL
EPA REG. NO. 100-1139
NOTIFICATION OF AN ALTERNATE BRAND NAME**

Syngenta Crop Protection, Inc. is submitting Notification of an alternate brand name for Barricade 4FL, EPA Reg. No. 100-1139. The proposed alternate brand name is Resolute 4FL. One copy of the label with the alternate brand name highlighted is attached, a CD of the label with the alternate brand name for electronic comparison, a Certificate with Respect to Label Integrity form, and EPA Form 8570-1.

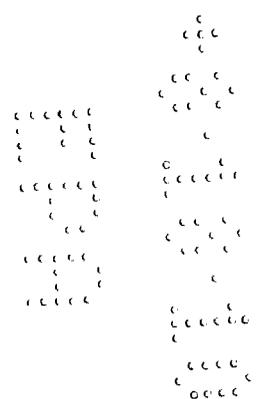
Thank you in advance for approving this request. If you have any questions, please contact me at 336-632-2494.

Sincerely,

Pat Dinnen
Label Group Leader

cc: Tom Parshley

Enclosures



Certification with Respect to Label Integrity

Version: 9/11/02

I certify that the information (including, but not limited to, text, tables, and graphics) contained in the electronic file identified below by file name and submitted with this certification is the same information as that on the paper copies of these documents included with this submission.

PROPOSED LABEL		
EPA Registration #	Date Submitted to EPA	Electronic file name
100-1139	8/17/2010	000100-01139.20100817.BAR-4FL_NOTIF_AUG2010.pdf

I certify that the statements that I have made on this form are true, accurate, and complete. I acknowledge that any knowingly false or misleading statements may be punishable by fine or imprisonment or both under applicable law.

Pat Dinnen

Signature

August 17, 2010

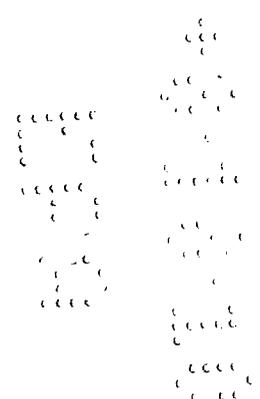
Date

Pat Dinnen

Name (typed)

Label Group Leader

Title



Booklet
(1 gal., 10 gal., 30 gal.)

NOTIFICATION

SEP 03 2010

BarricadeResolute® 4FL

Herbicide

For selective preemergence control of 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

Active Ingredient:

Prodiamine*	40.7%
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Other Ingredients:	59.3%
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Total:	100.0%
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*CAS No. 29091-21-2

BarricadeResolute 4FL contains 4 pounds active ingredient per gallon.

KEEP OUT OF REACH OF CHILDREN

CAUTION

See additional precautionary statements and directions for use inside booklet.

EPA Reg. No. 100-1139

EPA Est. 70989-MO-001

Product of the United Kingdom

Formulated in the USA

SCP 1139A-L10A 0609 (1 gal. – Product ID 37150)

SCP 1139A-L12A 0609 (30 gal. – Product ID 37152)

SCP 1139A-L14A 0609 (10 gal. – Product ID 37151)

1 gallon

Net Contents

10 gallons

Net Contents

__ gallons

Net Contents

FIRST AID	
If swallowed	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • 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	

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 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 must 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. To the extent permitted by applicable law, 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. To the extent permitted by applicable law: (1) this warranty does not extend to the use of the product contrary to label instructions or under conditions not reasonably foreseeable to or beyond the control of Seller or SYNGENTA, and, (2) Buyer and User assume the risk of any such use. To the extent permitted by applicable law, SYNGENTA MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS WARRANTED BY THIS LABEL.

To the extent permitted by applicable law, in no event shall SYNGENTA be liable for any incidental, consequential or special damages resulting from the use or handling of this product. **TO THE EXTENT PERMITTED BY APPLICABLE LAW, 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 Limitation of Warranty and 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

NON-AGRICULTURAL USE REQUIREMENTS

The requirements of this box apply to uses of this product that are **NOT** within the scope of the Worker Protection Standard for agricultural pesticides (40CFR part 170). The "WPS" applies when this product is used to produce agricultural plants on farms, forest or nurseries. Applicators and handlers should wear long-sleeved shirt, long pants, chemical resistant gloves, shoes with socks and protective eyewear. Thoroughly wash face and hands with soap and water after exposure and before eating or smoking. Launder exposed clothing before reuse. Do not allow reentry to treated areas until dust has settled and the turf grass or soil is dry.

GENERAL INFORMATION

WHERE TO USE

BarricadeResolute 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 BARRICADERESOLUTE 4FL WORKS

BarricadeResolute 4FL controls susceptible weeds by preventing growth and development of newly germinated weeds. Weed control is most effective when **BarricadeResolute** 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 **BarricadeResolute** 4FL.
2. Follow all applicable directions, restrictions, and precautions on the labels of EPA-registered tank-mix partners.
3. Do not blend **BarricadeResolute** 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 RESOLUTE 4FL ALONE

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

1. Fill the spray tank $\frac{1}{4}$ 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 Resolute 4FL was mixed with fertilizer in the spray tank, the fertilizer may aid resuspension of Barricade Resolute 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 Resolute 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.
7. 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 RESOLUTE 4FL

Barricade Resolute 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 BarricadeResolute 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 BarricadeResolute 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 BarricadeResolute 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)**

Component Formulations	Rate Per		Level Teaspoons
	Acre	1,000 sq. ft.	
<u>BarricadeResolute</u> 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 BarricadeResolute 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:

1. 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.
2. 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.

3. 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~~Resolute 4FL, other flowable liquids (FL) or suspension concentrates (SC).
5. Add emulsifiable concentrates (EC) last.

APPLICATION

Apply ~~Barricade~~Resolute 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

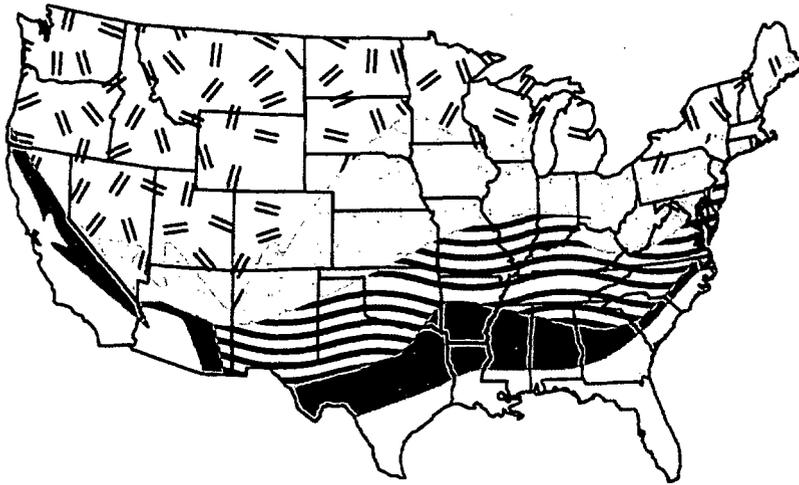
~~Barricade~~Resolute 4FL is a selective preemergence herbicide that, when properly applied, will control certain grass and broadleaf weeds in established turfgrasses including:

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

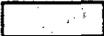
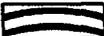
The maximum amount of ~~Barricade~~Resolute 4FL that may be applied per year is given for each turfgrass species in the **Annual Use Rates** section of this label.

For optimum weed control, ~~Barricade~~Resolute 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



Approximate Date

-  After May 30
-  After May 10
-  After April 20
-  After March 20
-  January 1 to March 20

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

1. Do not apply ~~Barricade~~Resolute 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~~Resolute 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~~Resolute 4FL to golf course putting greens.**
6. If you consistently mow creeping bentgrass at a height of less than 0.5 inch do not apply ~~Barricade~~Resolute 4FL.

Application Timing And Rate - Turfgrass

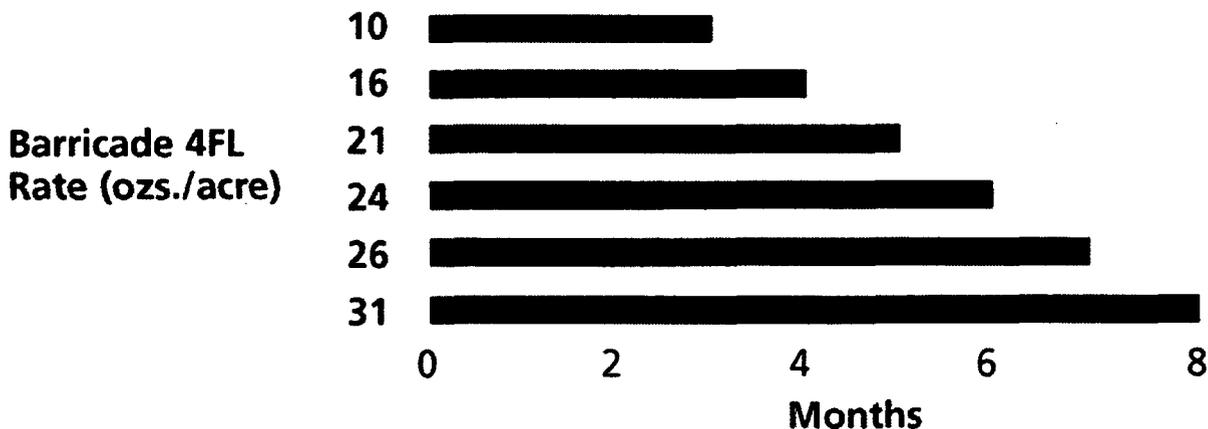
~~Barricade~~Resolute 4FL may be applied as a single application or in sequential applications to control weeds germinating throughout the year. All applications must be made before target weeds germinate because **~~Barricade~~Resolute 4FL will not control weeds that have already emerged.**

The amount of ~~Barricade~~Resolute 4FL to apply depends upon:

1. 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*



*Length of control varies by region. This table is an average.

Annual Use Rates – Turfgrass

BarricadeResolute 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 <u>BarricadeResolute</u> Per Calendar Year by Turf Species		
Turf Species	Oz. Product/A	Oz. Product/1,000 sq. ft.
Bermudagrass ²	21-48 ¹	0.5-1.1
Bahiagrass		
Centipedegrass		
Kikuyugrass		
Seashore Paspalum		
St. Augustinegrass ³		
Tall Fescue (including turf-type)		
Zoysiagrass		
Buffalograss	10-30 ¹	0.23-0.70
Kentucky Bluegrass		
Perennial Ryegrass		
Fine Fescue	10-24 ¹	0.23-0.55
Creeping Bentgrass (0.5 inch or more in height ⁴)	10-21 ¹	0.23-0.48

¹ BarricadeResolute 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.

² 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.

³ Use an initial rate of 16-32 ozs./A per application.

⁴ To avoid grass injury, do not apply BarricadeResolute 4FL to creeping bentgrass mowed at less than 0.5 inch in height.

Weeds Controlled

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

- | | |
|---|----------------------------------|
| Barnyardgrass | Kochia |
| Bluegrass, Annual (<i>Poa annua</i>) ¹ | Lambsquarters, Common |
| Carpetweed | Lovegrass |
| Chickweed, Common ² | Panicum, (Texas, Fall, Browntop) |
| Chickweed, Mouseear (from seed) | Pigweed |
| Crabgrass (Large, Smooth) ³ | Purslane, Common |
| Crowfootgrass | Pusley, Florida |
| Cupgrass, Woolly | Rescuegrass ⁴ |
| Foxtails, Annual | Shepherdspurse ² |
| Goosegrass ⁵ | Signalgrass, Broadleaf |
| Henbit ² | Speedwell, Persian |
| Itchgrass | Sprangletop |
| Johnsongrass (from seed) | Spurge, Prostrate |
| Junglerice | Witchgrass |
| Knotweed ² | Woodsorrel, Yellow (from seed) |

¹ In those areas where *Poa annua* is a winter annual, apply BarricadeResolute 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)

² To control this weed, apply BarricadeResolute 4FL in late summer, fall, or winter before weeds germinate.

³ Fall Applications for Spring Crabgrass Control in Cool-Season Grasses: In those areas where the ground freezes in the winter, BarricadeResolute 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.

⁴ Suppression only.

⁵ In many areas a single application of 21-48 ozs./A of BarricadeResolute 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.

When to Apply BarricadeResolute 4FL After Overseeding Turf

Injury to desirable seedlings is likely if BarricadeResolute 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 BarricadeResolute 4FL.

When to Overseed After Application - All States

BarricadeResolute 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 <u>BarricadeResolute</u> 4FL Ozs. Product/A	Interval (Months Before Overseeding)*		
	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 BarricadeResolute 4FL and When to Apply

Amount to Apply	When to Apply	Expected Control	Use Precautions
12-21 ozs./A*	6-8 weeks before ryegrass overseeding second application: 4-8 weeks after overseeding or when perennial ryegrass roots are in the second inch of soil	1 application for 70% or greater control of <i>Poa annua</i> second application may enhance control	1. Some seedling mortality and temporary reduction in root growth of new seedlings may occur. 2. To reduce the potential for seedling mortality maintain a moist seedbed with light, frequent irrigation. 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.

* The amount of BarricadeResolute 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

BarricadeResolute 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 BarricadeResolute 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 BarricadeResolute 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 BarricadeResolute 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 BarricadeResolute 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 Nursery Stock	<ol style="list-style-type: none"> 1. Delay application until soil has settled around transplants. 2. Water transplants thoroughly before application. 3. Apply after cuttings form roots and are established. 4. To avoid inhibition of the tissue union, apply before budding/grafting or after buds/grafts have taken.
Established Container, Field Nursery Stock, or Landscape Plants	Apply at any time as a broadcast, over-the-top, or directed spray.
Landscape (or Ornamental) Plantings	<ol style="list-style-type: none"> 1. Apply as a broadcast, over-the-top, or as a directed spray. 2. Delay applications to newly transplanted ornamentals until soil has settled around transplants.
Bare Ground Application for Container Placement	<ol style="list-style-type: none"> 1. Apply to soil (including mulch, gravel, wood chips, or other permeable base) upon which containerized ornamentals are placed. 2. After Barricade<u>Resolute</u> 4FL is applied, perform shallow cultivation or hand weeding only, to avoid disturbing the herbicide barrier.
In Shadehouses and Uncovered Polyhouses	1. After Barricade <u>Resolute</u> 4FL is applied, uncovered polyhouses must remain open for at least 7 days and ornamentals must receive 2 irrigations totaling at least ½ inch of water before covering.
Ornamental Bulbs and Perennial Wildflower Plantings	<ol style="list-style-type: none"> 1. Barricade<u>Resolute</u> 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. 2. In wildflowers, a postemergence herbicide labeled for wildflowers may be needed to control weeds that have already emerged.

How Much BarricadeResolute 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. <u>BarricadeResolute</u> 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:

$$\frac{\text{Band width in inches}}{\text{Row width in inches}} \times \text{broadcast rate} = \text{amount to apply/acre of field}$$

Equivalent Measurements for BarricadeResolute 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

BarricadeResolute 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 BarricadeResolute 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~~Resolute 4FL on Ornamentals

Product	Precautions/Instructions
Goal® (use on conifers only)	1. Mix with Barricade <u>Resolute</u> 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 style="list-style-type: none"> 1. These nonselective tank-mix herbicides control many emerged annual broadleaves and grasses. 2. 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. 3. 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.

Tolerant Ornamental Species

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

Table 1. Tolerant Ornamental Species - All States

Scientific name	Common name
<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>Dodonea viscosa</i>	Hop Bush
<i>Elaeagnus pungens</i>	Silverberry
<i>Euonymus fortunei</i>	Wintercreeper
<i>Euonymus japonica</i>	Japanese Spindle Tree (Evergreen Euonymus)
<i>Euonymus kiautschovicka</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>Liriope muscari</i>	Big Blue Lillyturf
<i>Lonicera japonica</i>	Japanese Honeysuckle
<i>Lonicera tatarica</i>	Tatarian Honeysuckle
<i>Magnolia</i> spp.	Magnolia species**
<i>Maleophora 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*
<i>Photinia fraseri</i>	Fraser'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 elliotii</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
<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 trilobium</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

Scientific name	Common name
<i>Abelia grandiflora</i>	Abelia: Sherwood
<i>Achillea</i> spp.	Yarrow: King Edward
<i>Agapanthus orientalis</i>	
<i>Akebia quintata</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>Crocosmia</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 purpurea</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
<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 x fauriei</i>	Crape Myrtle; Tuscarora
<i>Lantana montevidensis</i>	Weeping Lantana
Lavender spp.	Lavender; Munstead
<i>Leontopodium alpinum</i>	Edelweiss
<i>Ligustrum sinense</i>	Chinese Privet; Variegata
<i>Lilium</i> spp.	Lily: Jazz
<i>Liriope muscari</i> var. <i>variegata</i>	Liriope, Variegated
<i>Liriope spicata</i>	Liriope, 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>	'Delaware Valley White'
(including Azalea)	'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 caudicola</i>	Stonecrop; Lidakense
<i>Sedum dasyphyllum</i>	Stonecrop
<i>Sedum spurium</i>	Stonecrop; Dragon's Blood
<i>Spiraea bumalda</i>	Spirea: Anthony Waterer
<i>Syzygium 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

**Not for use on container grown plants.

NEW PLANTINGS, REPLANTING AND ROTATIONAL PLANTINGS

Nursery, landscape, or non-cropped land areas treated with ~~Barricade~~Resolute 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.

STORAGE AND DISPOSAL

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

Pesticide Storage

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 Handling [less than 5 gallons]

Non-refillable container. Do not reuse or refill this container. Offer for recycling if available. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or mix tank and drain for 10 seconds after the flow begins to drip. Fill the container $\frac{1}{4}$ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or mix tank or store rinsate for later use and disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of container in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

Container Handling [Bulk/Mini-bulk]

Non-refillable container. Do not reuse or refill this container. Offer for recycling if available. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use and disposal. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

Chemigation

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

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Gallery® trademark of Dow AgroSciences

Goal® trademark of Rohm and Haas Company

Roundup® trademark of Monsanto Company

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<p>For non-emergency (e.g., current product information), call Syngenta Crop Protection at 1-800-334-9481.</p>
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Product of the United Kingdom
Formulated in the USA

Manufactured for:
Syngenta Crop Protection, Inc.
P.O. Box 18300
Greensboro, North Carolina 27419-8300

SCP 1139A-L10A 0609 (1 gal. – Product ID 37150)
SCP 1139A-L12A 0609 (30 gal. – Product ID 37152)
SCP 1139A-L14A 0609 (10 gal. – Product ID 37151)

|

Base Label
(1 gal., 10 gal.)

BarricadeResolute® 4FL

Herbicide

For selective preemergence control of 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

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

*CAS No. 29091-21-2

BarricadeResolute 4FL contains 4 pounds active ingredient per gallon.

KEEP OUT OF REACH OF CHILDREN

CAUTION

EPA Reg. No. 100-1139

EPA Est. 70989-MO-001

Product of the United Kingdom
Formulated in the USA

1 gallon
Net Contents

10 gallons
Net Contents

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.

NON-AGRICULTURAL USE REQUIREMENTS

The requirements of this box apply to uses of this product that are **NOT** within the scope of the Worker Protection Standard for agricultural pesticides (40CFR part 170). The "WPS" applies when this product is used to produce agricultural plants on farms, forest or nurseries. Applicators and handlers should wear long-sleeved shirt, long pants, chemical resistant gloves, shoes with socks and protective eyewear. Thoroughly wash face and hands with soap and water after exposure and before eating or smoking. Launder exposed clothing before reuse. Do not allow reentry to treated areas until dust has settled and the turf grass or soil is dry.

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 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	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • 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.

STORAGE AND DISPOSAL

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

Pesticide Storage

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 Handling [1 gallon]

Non-refillable container. Do not reuse or refill this container. Offer for recycling if available. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or mix tank and drain for 10 seconds after the flow begins to drip. Fill the container $\frac{1}{4}$ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or mix tank or store rinsate for later use and disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of container in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

Container Handling [10 gallon]

Non-refillable container. Do not reuse or refill this container. Offer for recycling if available. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container $\frac{1}{4}$ full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use and disposal. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

Chemigation

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

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Manufactured for:
Syngenta Crop Protection, Inc.
P.O. Box 18300
Greensboro, North Carolina 27419-8300

SCP 1139A-L10A 0609 (1 gal. Booklet)
SCP 1139A-L11A 0609 (1 gal. Back Label)

Container Label
(1 gal. and 30 gal.)

BarricadeResolute® 4FL

Herbicide

For selective preemergence control of 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

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

*CAS No. 29091-21-2

BarricadeResolute 4FL contains 4 pounds active ingredient per gallon.

KEEP OUT OF REACH OF CHILDREN

CAUTION

See additional precautionary statements and directions for use inside booklet.

EPA Reg. No. 100-1139
EPA Est. 70989-MO-001

Product of the United Kingdom
Formulated in the USA

__ gallons
Net Contents

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.

NON-AGRICULTURAL USE REQUIREMENTS

The requirements of this box apply to uses of this product that are **NOT** within the scope of the Worker Protection Standard for agricultural pesticides (40CFR part 170). The "WPS" applies when this product is used to produce agricultural plants on farms, forest or nurseries. Applicators and handlers should wear long-sleeved shirt, long pants, chemical resistant gloves, shoes with socks and protective eyewear. Thoroughly wash face and hands with soap and water after exposure and before eating or smoking. Launder exposed clothing before reuse. Do not allow reentry to treated areas until dust has settled and the turf grass or soil is dry.

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 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	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • 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.	
<p>HOT LINE NUMBER</p> <p>For 24 Hour Medical Emergency Assistance (Human or Animal) or Chemical Emergency Assistance (Spill, Leak, Fire, or Accident)</p> <p>Call 1-800-888-8372</p>	

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.

30 Gallon:

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 must 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. To the extent permitted by applicable law, 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. To the extent permitted by applicable law: (1) this warranty does not extend to the use of the product contrary to label instructions or under conditions not reasonably foreseeable to or beyond the control of Seller or SYNGENTA, and, (2) Buyer and User assume the risk of any such use. To the extent permitted by applicable law, SYNGENTA MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS WARRANTED BY THIS LABEL.

To the extent permitted by applicable law, in no event shall SYNGENTA be liable for any incidental, consequential or special damages resulting from the use or handling of this product. **TO THE EXTENT PERMITTED BY APPLICABLE LAW, 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 Limitation of Warranty and Liability, which may not be modified except by written agreement signed by a duly authorized representative of SYNGENTA.

STORAGE AND DISPOSAL

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

Pesticide Storage

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 Handling (1 gallon)

Non-refillable container. Do not reuse or refill this container. Offer for recycling if available. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or mix tank and drain for 10 seconds after the flow begins to drip. Fill the container $\frac{1}{4}$ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or mix tank or store rinsate for later use and disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of container in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

Container Handling (Bulk and Minibulk)

Non-refillable container. Do not reuse or refill this container. Offer for recycling if available. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container $\frac{1}{4}$ full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use and disposal. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of 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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Chemigation

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

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Manufactured for:
Syngenta Crop Protection, Inc.
P.O. Box 18300
Greensboro, North Carolina 27419-8300

SCP 1139A-L10A 0609 (1 gal. – Product ID 37150)
SCP 1139A-L12A 0609 (30 gal. – Product ID 37152)

BAR 4FL 1139A-L10-L11-L12-L14 1207 - bb - 11-15-07
BAR 4FL 1139A-L10-L11-L12-L14 1207 CLEAN – pd – 10/11/09
BAR 4FL 1139A-L10A-L11A-L12A-L14A 0609 CLEAN – pd – 08/17/10
BAR 4FL 1139A-L10A-L11A-L12A-L14A 0609 NOTIF AUG2010 – pl – 08/17/10