

10 SEP 1992

Ms. Donna M. Hillebold
Sandoz Agro, Inc.
1300 East Touhy Avenue
Des Plaines, IL 60018

Dear Ms. Hillebold:

Subject: BARRICADE® 65WG Fungicide
EPA Registration No. 55947-43
Application Dated August 26, 1992 To Amend
Labeling to Reflect Container Disposal Directions for
800 - 1200 lb Plastic Tote-Sack Intermediate
Bulk Containers and 70 Kg Fiber Drums
Labeling; and Adding Other Editorial Changes

The proposed amendment referred to above, submitted in connection with registration under section 3 of the Federal Insecticide, Fungicide and Rodenticide Act as amended is acceptable provided that you:

o Submit five (5) printed copies of your final printed labeling before you release the product for shipment.

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

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

Sincerely yours,

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

Enclosure

E.Wilson:Diskette No.NC3:09-04-92

BEST AVAILABLE COPY

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CONTAINER LABEL

BARRICADE® 65WG Herbicide

ACTIVE INGREDIENT:

Prodiamine [N³,N³-Di-n-propyl-2,4-dinitro-6-(trifluoromethyl)-m-phenylenediamine]..... 65.0%

INERT INGREDIENTS:..... 35.0%

Total..... 100.0%

BARRICADE® 65 WG for selective preemergence control of grass and broadleaf weeds in established turf grasses and landscape ornamentals.

KEEP OUT OF REACH OF CHILDREN

CAUTION

See side panel for additional Precautionary Statements.

Net Weight: 5 or 10 lbs.

EPA Reg. No. 55947-43

EPA Est. No.

**Sandoz Agro, Inc.
1300 E. Touhy Avenue
Des Plaines, IL 60018**

**ACCEPTED
with COMMENTS
EPA Letter Dated:**

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

55947-43

**PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS**

CAUTION

Harmful if inhaled or absorbed through the skin. Avoid contact with skin, eyes or clothing. Avoid breathing dust. Prolonged or frequently repeated skin contact, while mixing or handling the concentrated material, may cause allergic reactions in some individuals. During mixing and loading of concentrate material wear chemical resistant gloves. Wash non-disposable gloves thoroughly with soap and water before removing.

First Aid

If on skin: Wash with soap and water. Rinse thoroughly.

If inhaled: Remove to clear air.

If in eyes: Flush thoroughly with water for several minutes. Contact a physician if irritation persists.

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 washwaters.

DIRECTIONS FOR USE

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

Refer to the DIRECTIONS FOR USE booklet attached to this container for use directions and additional precautionary statements. Apply this product only as directed in the attached label booklet. For additional copies of the DIRECTIONS FOR USE booklet, write the manufacturer.

Do not blend BARRICADE 65WG onto dry fertilizer or any other granular material.

Do not apply this product through any type of irrigation system.

Do not apply aerially.

BEST AVAILABLE COPY

STORAGE AND DISPOSAL

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

STORAGE:

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

PESTICIDE DISPOSAL

Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

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

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Plastic Containers: Triple rinse (or equivalent). Then offer for recycling or reconditioning, or; puncture and dispose of in a sanitary landfill or at an incineration facility, or; if allowed by state and local authorities, by burning locally. If burned, stay out of smoke. ✓

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

Fiber Drums: Completely empty liner by shaking and tapping sides and bottom to loosen clinging particles. Empty residues into application equipment. Dispose of empty liner in a sanitary landfill or at an incineration facility if allowed by state and local authorities. ✓
If the drum cannot be reused, dispose of in a sanitary landfill or by incineration if allowed by state and local authorities.

LIMITATION OF WARRANTY AND LIMITATION OF LIABILITY

NOTICE: Read this Limitation of Warranty and Limitation of 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.

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 weather conditions, presence of other materials, or the manner of use or application, all of which are beyond the control of Sandoz or seller. All such risks shall be assumed by buyer or user.

Sandoz 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, under normal use conditions, subject to the risks described above. **SANDOZ MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF FITNESS OR OF MERCHANTABILITY OR ANY OTHER EXPRESS OR IMPLIED WARRANTY.** In no event shall Sandoz or seller be liable for any incidental, consequential or special damages resulting from the use or handling of this product.

Sandoz and seller offer this product, and buyer and user accept it, subject to the foregoing limitations of warranty and limitation of liability, that may not be modified by any oral or written agreement.

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DIRECTIONS FOR USE BOOKLET

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Total 100.0%

For selective preemergence control of grass and broadleaf weeds in established turf grasses and landscape ornamentals.

KEEP OUT OF REACH OF CHILDREN

CAUTION

See side panel for additional Precautionary Statements.

EPA Reg. No. 55947-43
EPA Est. No.

Sandoz Agro, Inc.
1300 E. Touhy Avenue
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BEST AVAILABLE COPY

DIRECTIONS FOR USE

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

BARRICADE 65WG is a selective preemergence herbicide that provides residual control of many grass and broadleaf weeds in turf grasses and landscapes. **BARRICADE 65WG** controls susceptible weeds by inhibiting weed seeds germination and root development. For most effective weed control **BARRICADE 65WG** must be incorporated by 1/2 inch of rainfall, irrigation or shallow mechanical incorporation. Incorporation should take place as soon as possible after application and should not be delayed past 14 days from the date of application.

All applicable directions, restrictions, and precautions on the labels of EPA registered tank mix partners are to be followed.

Do not blend **BARRICADE 65WG** onto dry fertilizer or any other granular material. ✓

Do not apply this product through any type of irrigation system. ✓

Do not apply aerially. ✓

Mixing and Application

Apply BARRICADE 65WG in a minimum of 20 gallons of carrier per treated acre (1/2 gallon / 1000 ft²) using a calibrated, low pressure sprayer with 50 mesh or coarser screens. A broadcast boom or hand held wand designed for herbicide or insecticide application will provide the best results. Select nozzle pressure and gallonage to provide complete coverage.

A spray colorant may be used to modify the color of BARRICADE 65WG to improve application accuracy by minimizing swath skips and overlaps.

BARRICADE 65WG can be applied using water or sprayable fluid fertilizer as the carrier. If a fluid fertilizer is used, a compatibility test should be made prior to mixing (see **Compatibility Test** in this section for instructions).

Thorough mixing of BARRICADE 65WG in the spray tank is essential for uniform application. Fill the spray tank half full with clean water or fluid fertilizer. Start agitation and check to ensure it is working properly.

If water is used as the carrier, BARRICADE 65WG herbicide can be poured directly into the tank.

If fluid fertilizer is used as the carrier, first form a slurry by mixing BARRICADE 65WG with at least 2 parts clean water in a separate container. Pour the slurry into the spray tank while maintaining agitation.

Add the rest of the water or fluid fertilizer to obtain the final spray volume. Maintain vigorous agitation in the spray tank before and during the application. This will ensure a well mixed spray suspension.

Thoroughly clean the sprayer after use by flushing the system with water containing a detergent. Do not allow spray suspension to dry in the tank.

BARRICADE 65WG may be mixed with certain other EPA registered herbicides to provide a broader spectrum of control or to control emerged weeds. See **Mixing Order** in this section and the **ESTABLISHED TURF** section for specific recommendations.

Mixing Order for Tank Mixtures

When mixing BARRICADE 65WG with other components (carrier and pesticide products) add the products to the spray tank in the following order:

- 1 - Water dispersible granules (WG formulations) and wettable powders (WP formulations). Wettable powders should be premixed with a small amount of water to form a slurry before addition; water dispersible granules can be added directly during filling. Allow the product to disperse completely before other products are added.
- 2 - Flowable liquids (FL or SC).
- 3 - Emulsifiable concentrates (EC).
- 4 - Surfactants approved for application to turf or landscapes. Check surfactant label before use.

Compatibility Test

Before mixing BARRICADE 65WG with other pesticides in the spray tank, test the compatibility by mixing all components (carrier and pesticide products) in a small container in proportionate quantities (see following table).

Amount of Component to Add to One Pint of Spray Carrier
(Assuming Volume is 25 Gallons per Acre)

COMPONENT FORMULATIONS	-----RATE PER-----		LEVEL TEASPOONS
	ACRE	1000 Ft ²	
Dry	1.0 lb	0.4 oz	1.5
Liquid	1.0 pt	0.4 oz	0.5

If components do not ball-up or form flakes, sludge, gels, oily films or layers, or other precipitates, then the tested spray mix is compatible. Incompatibility in any of the above forms will usually occur within 5 minutes after mixing.

If components are incompatible, the use of a compatibility agent is recommended. Rerun the above compatibility test with commercially available compatibility agents until a suitable compatibility agent is identified.

ESTABLISHED TURF

BARRICADE 65WG is a selective preemergence herbicide that, when properly applied, will control certain grass and broadleaf weeds in established grass turf. The species of turf grass determines the maximum amount of this product that may be applied during a year.

Most effective weed control in turf grasses will be obtained when BARRICADE 65WG is activated by at least 1/2 inch of rainfall or irrigation within 14 days after application and prior to weed seed germination. See the map below for approximate crabgrass seed germination dates.

CRABGRASS SEED GERMINATION DATES

Approximate Date

Foxtails (yellow, green) tend to germinate before crabgrass; therefore, if targeting foxtails, apply BARRICADE 65WG three (3) weeks before the corresponding crabgrass germination date.

USE PRECAUTIONS

The following use precautions apply to the use of BARRICADE 65WG in turf grasses:

Application of BARRICADE 65WG may thin emerged annual bluegrass and newly over-seeded grasses.

Do not apply to FALL SEEDED TURF treated the following spring until after the second mowing.

Do not apply to SPRING SEEDED TURF or newly set seed until the following year.

Application of BARRICADE 65WG to turf stressed by drought, low fertility, or pest damage may result in turf injury.

Disturbing the herbicide barrier with cultural practices such as aerifying or disking may result in reduced weed control.

Do not apply BARRICADE 65WG to tees or greens, or to areas where dichondra, colonial bentgrass, velvet bentgrass or annual bluegrass (Poa annua) are desirable species.

Rates and Timing

BARRICADE 65WG may be applied as a single application or as a sequential application to control weeds germinating throughout the year. All applications must be made prior to germination of the target weeds.

Maximum use rate selection should be based on turf species. The length of time of residual weed control provided by BARRICADE 65WG is related to the rate applied.

Maximum Annual Rates

BARRICADE 65WG is recommended for use on the following turf grass species. The total amount of BARRICADE 65WG applied during one year must not exceed the amounts listed.

Maximum rate per calendar year of BARRICADE 65WG

Turf Species	Lbs/A	Oz/1000 Ft ²
Bermudagrass Centipedegrass Seashore Paspalum Tall Fescue Zoysia	2.30	0.83
Perennial Bluegrass Perennial Ryegrass	1.50	0.55
Creeping Red Fescue St. Augustinegrass	1.15	0.40
Creeping Bentgrass (min. 1/2 inch height)	1.00	0.37
Bermudagrass (newly sprigged or plugged)	0.80	0.30

- Do not apply more than 1.15 lbs/A of BARRICADE 65WG or the maximum yearly rate listed above per application, whichever is less.
- Do not make more than 2 applications per calendar year.
- If making a second application, wait at least 60 days before making the second application.

Weeds Controlled

The following table lists use rates recommended for control of indicated weeds for approximately 2-6 months.

Use the higher rate within the listed range for longer control in areas with extended germination periods (see Crabgrass Seed Germination Date Map, page 6)

Application Rates and Weeds Controlled

Rate of BARRICADE 65WG Lbs./A Oz./1000 Ft ²)		Weeds Controlled
0.50-1.15	0.18-0.40	Crabgrass (large, smooth)
0.75-1.15	0.28-0.40	Annual Bluegrass Common Chickweed Prostrate Spurge
1.15-1.50 ²	0.40-0.55	Foxtail - Yellow Shepardspurse ¹ Henbit Knotweed
1.50-2.30 ²	0.55-0.83	Goosegrass ³ Rescuegrass ⁴

Do not exceed the maximum annual application rates recommended for the turf species. All applications must be made prior to germination of the target weeds.

1. Fall application.
2. Weeds requiring rates greater than 1.15 lbs./A will require a sequential application (see Rates and Timings).
3. For the best control of goosegrass make a sequential application of 1.15 lbs./A followed after 60 days with 0.38 to 1.15 lbs./A of product.
4. Suppression only.

Overseeding / Reseeding

BARRICADE 65WG will inhibit the germination of turf species if overseeded too soon after application. Wait 4-6 months per 0.75 pound of BARRICADE 65WG applied when grass seed is to be broadcasted over the turf surface. This overseeding interval can be shortened to 3-4 months per 0.75 pound when grass seed is drilled directly into the soil. The interval between application and overseeding / reseeding is dependent on the application rate, soil temperature, and soil moisture. A shorter period is required if growing conditions are warm and wet, while a longer interval is needed if conditions are cool and dry.

Turf Tank Mixes

Refer to Mixing and Application if mixing BARRICADE 65WG with fluid fertilizer is planned.

BARRICADE 65WG may be tank mixed with other registered turf herbicides. Tank mixes are for use only in states where the tank mix product and application site are registered.

Consult the label(s) of the individual tank mix product(s) for use, rate recommendations, application timing, weeds controlled, turf grass safety and specific precautions and/or restrictions.

Before mixing tank mix partners in the spray tank it is advisable to test compatibility by mixing the products in a small container. See the Compatibility Test section under Mixing and Application.

LANDSCAPE ORNAMENTALS

BARRICADE 65WG Herbicide will not harm most nearby established ornamental trees, shrubs and flowers. The following species have shown tolerance to BARRICADE 65WG:

Scientific name	Common name
Acer palmatum	Japanese Maple
A. platanoides	Norway Maple
Actinidia chinensis	Kiwi*
Agapanthus africanus	Lily-of-the-Nile
Arctostaphylos densiflora	Vine Hill Manzanita
Arctotheca calendula	Cape Weed
Aucuba japonica	Japanese Aucuba
Barberis gladwynensis	
B. julianae	Wintergreen Barberry
B. mentorensis	Mentor Barberry
B. thunbergii	Japanese Barberry
B. verruculosa	Warty Barberry
Buxus microphylla	Japanese Boxwood
Callistemon viminalis	Weeping Bottlebrush
Calluna vulgaris	Scotch Heather
Carpobrotus edulis	Hottentot Fig (Ice Plant)
Cassia artemisoides	Feathery Cassia
Ceanothus rigidus	Wild Lilac
Chamaecyparis pisifera	False Cypress
Cleyera japonica	Cleyera
Cornus florida	Flowering Dogwood
C. stolonifera	American Dogwood
Cortaderia selloana	Pampas Grass
Cotoneaster apiculatus	Cranberry Cotoneaster
C. buxifolius	
C. dammeri	Bearberry Cotoneaster
C. microphyllus	Rockspray Cotoneaster
Cupressus sempervirens	Italian Cypress
Delasperma alba	White Trailing Ice Plant
Dodonea viscosa	Hop Bush
Elaeagnus pungens	Silverberry
Euonymus fortunei	Wintercreeper

*Ornamental species only. Do not use on food producing trees or vines.

Scientific name	Common name
<i>E. japonica</i>	Evergreen Euonymus
<i>E. kiautschovica</i>	Spreading Euonymus
<i>Fatsia japonica</i>	Japanese Aralia
<i>Forsythia intermedia</i>	Border Forsythia
<i>F. viridissima</i>	Greenstem Forsythia
<i>Gardenia jasminoides</i>	Gardenia, Cape-Jasmine
<i>Hedera helix</i>	English Ivy
<i>Hibiscus rosa-sinensis</i>	Chinese Hibiscus
<i>Ilex cornuta</i>	Chinese Holly
<i>I. crenata</i>	Japanese Holly
<i>I. opaca</i>	American Holly
<i>I. pernyi</i>	
<i>Jasminium nudiflorum</i>	Winter Jasmine
<i>Juniperus chinensis</i>	Chinese Juniper
<i>J. conferta</i>	Shore Juniper
<i>J. horizontalis</i>	Creeping Juniper
<i>Juglans</i> sp.	Walnut*
<i>Justicia brandegeana</i>	Shrimp Plant
<i>Lagerstromia indica</i>	Crepe Myrtle
<i>Ligustrum amurense</i>	Amur Privet
<i>L. japonicum</i>	Japanese Privet
<i>L. lucidum</i>	Glossy Privet
<i>Liriope muscari</i>	Big Blue Lily Turf
<i>Lonicera japonica</i>	Japanese Honeysuckle
<i>L. tatarica</i>	Tatarian Honeysuckle
<i>Maleophora luteola</i>	Ice Plant
<i>Malus</i> sp.	Crabapple*
<i>Nandina domestica</i>	Heavenly Bamboo
<i>Olea europa</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>	Frasier's Photinia
<i>Picea abies</i>	Norway Spruce
<i>Pieris japonica</i>	Lily-of-the-Valley Shrub

*Ornamental species only. Do not use on food producing trees or vines.

Scientific name	Common name
<i>Pinus brutia</i>	Calabrian Pine
<i>P. canariensis</i>	Canary Island Pine
<i>P. halepensis</i>	Aleppo Pine
<i>P. nigra</i>	Austrian Black Pine
<i>P. radiata</i>	Monterey Pine
<i>P. thunbergiana</i>	Japanese Black Pine
<i>P. strobus</i>	Eastern White Pine
<i>P. sylvestris</i>	Scotch Pine
<i>Pistachio</i> sp.	Pistachio*
<i>Pittosporum rhombifolium</i>	Queensland Pittosporum
<i>P. tobira</i>	Mock Orange
<i>Podocarpus macrophyllus</i>	Japanese Yew
<i>Prunus laurocerasus</i>	English Laurel
<i>Prunus</i> sp.	Almond, Apricot, Nectarine, Peach, Plum and Prune*
<i>Pyracantha coccinea</i>	Firethorn
<i>P. fortuneana</i>	Firethorn
<i>P. koidzumii</i>	Firethorn
<i>Pyrus</i> sp.	Bradford Pear sp.
<i>Quercus rubra</i>	Red Oak
<i>Raphiolepis indica</i>	Indian Hawthorne
<i>Rhododendron</i> (including <i>Azalea</i>)	'Coral Bells' 'Formosa' 'Hino-crimson' 'FJM' '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>T. media</i>	Yew
<i>Thuja occidentalis</i>	American Arborvitae
<i>Trachelospermum asiaticum</i>	Star Jasmine
<i>Tsuga canadensis</i>	Canada Hemlock
<i>Viburnum japonicum</i>	Japanese Viburnum
<i>V. odoratissimum</i>	Sweet Viburnum

*Ornamental species only. Do not use as food producing trees or vines.

Scientific name	Common name
V. plicatum	Japanese Snowball
V. rigidum	Canary Island Viburnum
V. tinus	Laurustinus
V. trilobium	Cranberry Bush
V. wrightii	
Vinca minor	Dwarf Periwinkle
Vitis sp.	Grape*
Weigela florida	Old Fashioned Weigela
Yucca aloifolia	Spanish Bayonet
Y. filamentosa	Yucca, *
	Adam's Needle *

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