

PM 23

5/15/97

32802-70

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MAY 15 1997

Mr. Thomas J. Schmit  
Howard Johnson's Enterprises, Inc.  
700 W. Virginia St., No. 222  
Milwaukee, WI 53204

Dear Mr. Schmit:

Subject: Crabgrass Preventer Plus with 0.29 Barricade®  
Preemergence Herbicide  
EPA Registration No. 32802-70  
Application and Letter Dated May 2, 1997, Request To  
Amend Labeling: Deleting "Do not cut treated sod before  
120 days after application", Incorporating "minimum  
application rate", Adding "pounds per 1000 square feet"  
and Spreader Setting Chart and Minor Rewording of  
Precautions and Directions for Clarity

Your request to amend the label of the subject pesticide product registration under the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), as amended, to reflect the subject amendments has been reviewed and is acceptable under the Act, provided that you:

- o Submit one (1) copy of your final printed labeling 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)  
Herbicide Branch  
Registration Division (7505C)

CONCURRENCES							
SYMBOL	E:Wilson	Diskette	prod	impr	100p	05-15-97	
SURNAME							
DATE							

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ACCEPTED  
with COMMENTS  
In EPA Letter Dated

MAY 15 1987

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

32802-70

# CRABGRASS PREVENTER PLUS WITH .29 BARRICADE® PREEMERGENCE HERBICIDE

FOR SELECTIVE PREEMERGENCE CONTROL OF GRASS AND  
BROADLEAF WEEDS IN LAWNS AND ORNAMENTAL TURF  
(excluding golf course putting greens),  
LANDSCAPE ORNAMENTALS, ESTABLISHED PERENNIALS  
AND WILDFLOWER PLANTINGS

## ACTIVE INGREDIENT:

Prodiamine: [N<sup>3</sup>,N<sup>3</sup>-Di-n-propyl-2,4-dinitro-6-  
(trifluoromethyl)-m-phenylenediamine] . . . . .0.29%

INERT INGREDIENTS: . . . . .99.71%

TOTAL: . . . . .100.00%

EPA Reg. No. 32802-70

EPA Est. No. 32802-WI-1 (A), 32802-MO-1 (B)

First letter of bag code shows establishment where manufactured.

See tag attached to bag for fertilizer guaranteed analysis.

Manufactured by:

HOWARD JOHNSON'S ENTERPRISES, INC.

700 W. Virginia Street, Milwaukee, WI 53204-1548

BARRICADE® is a registered trademark of Novartis Crop Protection, Inc.

## KEEP OUT OF REACH OF CHILDREN

**CAUTION:** See back panel for further precautions  
and statement of practical treatment.

## PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

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

## STATEMENT OF PRACTICAL TREATMENT

**IF IN EYES:** Flush thoroughly with water for several minutes.  
Get medical attention if irritation persists.

**IF ON SKIN:** Wash with soap and water. Rinse thoroughly. Get  
medical attention if irritation persists.

**IF INHALED:** Remove person to fresh air.

**ENVIRONMENTAL HAZARDS:** This product has low  
solubility in water. At the limits of solubility, this product is not  
toxic to fish. However, at concentrations 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.

Not for use on plants being grown for sale or other commercial  
use, for commercial seed production, or for research purposes.  
For use on plants intended for aesthetic purposes or climatic  
modification and being grown in ornamental gardens or parks, or  
on golf courses or lawns and grounds.

(Alternate wording for WPS exclusionary statement, for use  
when the product labeling contains only turf uses (ie when label  
is split to exclude the directions for use on ornamental sites):

Not for use on turf being grown for sale or other commercial use  
as sod, or for commercial seed production, or for research  
purposes.

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This product is a selective preemergence herbicide that  
provides residual control of many grass and broadleaf weeds in  
established lawns and ornamental turf (excluding golf course  
putting greens), landscape ornamentals and established  
perennials and wildflower plantings. It controls susceptible  
weeds by inhibiting weed seeds germination and root  
development. When used according to directions, it will control:  
barnyardgrass; bluegrass, annual (*Poa annua*); carpetweed;  
chickweed, common; chickweed, mouseear (from seed);  
crabgrass (large, smooth); crowfootgrass; cupgrass, woolly;  
foxtails, annual; goosegrass<sup>1</sup>; henbit; itchgrass; johnsongrass  
(from seed); junglerice; knotweed; kochia; lambsquarter,  
common; lovegrass; panicum (Texas, fall, browntop); pigweed;  
purslane, common; pusley, Florida; rescuegrass<sup>2</sup>; shepard's  
purse<sup>2</sup>; signalgrass, broadleaf; speedwell, Persian; sprangletop;  
spurge, prostrate; witchgrass; woodsorrel, yellow (from seed).

<sup>1</sup> In many areas a single application of 5.2 to 11.9 pounds/1000 square feet  
(225 to 518 pounds/acre) will control goosegrass. However, under heavy  
goosegrass pressure and/or an extended growing season, most effective  
weed control may be obtained with an initial application of 5.2 to 7.9  
pounds/1000 square feet (225 to 345 pounds/acre), followed after 60 to  
90 days by a second application at doses that would not exceed the  
maximum annual rate (see Minimum and Maximum Application Rate  
table).

<sup>2</sup> For this weed, apply in late summer, fall or winter prior to germination.

<sup>3</sup> Suppression only.

**WHEN TO APPLY TO ESTABLISHED TURF:** This product  
must be applied prior to germination of weed seeds, as it will not  
control established weeds.



THIS MAP SHOWS  
APPROXIMATE CRABGRASS  
GERMINATION DATES

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

**APPLICATION DIRECTIONS:** Apply this product uniformly,  
using a suitable spreader that has been properly calibrated.  
Most effective weed control will be obtained when this product is  
activated by at least 0.5 inch of rainfall or irrigation prior to weed  
seed germination and within 14 days after application.

**USE PRECAUTIONS:** The following precautions apply to the use  
of this product in turf grasses and lawns. Application of this  
product may thin emerged annual bluegrass and newly  
overseeded grasses. Do not apply to overseeded turf within 60  
days after seeding or until after the second mowing, whichever is  
longer. Injury to desirable seedlings is likely if this product is  
applied before seedling secondary roots are in the second inch of  
soil (not thatch plus soil). Do not apply to newly set sod until the  
following year. Application to turf stressed by drought, low fertility,  
or pest damage may result in turf injury. Disturbing the herbicide  
barrier with cultural practices (such as core aeration) may result in  
reduced weed control. Do not apply to putting greens, or areas  
where dichondra, colonial bentgrass, velvet bentgrass or annual  
bluegrass (*Poa annua*) are desirable species. Do not apply  
through any type of irrigation system. Do not apply aerially. Do  
not graze or feed livestock forage cut from treated areas.

**RATES OF APPLICATION:** This product is recommended for  
use on the turf grass species listed in the following table. The  
maximum amount of this product that may be applied per year  
is given for each turf grass species. Do not exceed the  
maximum yearly rate listed:

(Label for EPA Reg. No 32802-70, PAGE 1 OF 3)

MINIMUM AND MAXIMUM APPLICATION RATES by Turf Grass Species		
Turf Species	Minimum Rate	Maximum Annual Rate <sup>1</sup>
Bahia grass, Bermudagrass <sup>2</sup> Centipedegrass, Zoysiagrass Seashore Paspalum St. Augustinegrass <sup>3</sup> Tall Fescue (including turf-type)	2.75 lbs / 1000 sq ft (120 lbs / acre)	11.9 lbs / 1000 sq ft per year (518 lbs / acre per year)
Buffalograss Kentucky Bluegrass Perennial Ryegrass	2.75 lbs / 1000 sq ft (120 lbs / acre)	7.9 lbs / 1000 sq ft per year (345 lbs / acre per year)
Creeping Red Fescue	2.75 lbs / 1000 sq ft (120 lbs / acre)	6 lbs / 1000 sq ft per year (260 lbs / acre per year)
Creeping Bentgrass	2.75 lbs / 1000 sq ft (120 lbs / acre)	5.2 lbs / 1000 sq ft per year (225 lbs / acre per year)

- <sup>1</sup> These are the maximum rates per calendar year.
- <sup>2</sup> May be used on newly sprigged or plugged Bermudagrass at rates not to exceed 4.1 pounds/1000 square feet (179 pounds/acre). Newly sprigged or plugged Bermudagrass stolon rooting may be temporarily retarded. Suppression only of foxtail, goosegrass and rescuegrass due to reduced rates used in sprigging situations.
- <sup>3</sup> Use an initial rate of 6 to 7.9 pounds/1000 square feet (260 to 345 pounds/acre) per application followed by sequential applications at rates that will not exceed the maximum annual rate of 11.9 pounds/1000 square feet (518 pounds/acre) per year.

This product may be applied as a single application or in sequential applications to control weeds germinating throughout the year. Sequential applications may be made so long as the amount of product applied does not exceed the maximum annual application rates recommended for each turf species. The length of time of residual weed control provided by this product is related to the rate applied. Use the higher rates listed for longer periods of weed control.

**WHEN TO OVERSEED AFTER APPLICATION:** This product will inhibit germination of turf seed if overseeded too soon after application. Follow rates and intervals in table for best overseeding/ reseeding results.

USE RATE	INTERVAL BEFORE OVERSEEDING		
	North	Transition	South
2.75 pounds / 1000 sq ft (120 pounds / acre)	4 months	4 months	4 months
5.2 pounds / 1000 sq ft (225 pounds / acre)	5 months	4 months	4 months
6 pounds / 1000 sq ft (260 pounds / acre)	6 months	5 months	5 months
6.3 pounds / 1000 sq ft (275 pounds / acre)	—	6 months	6 months
7.9 pounds / 1000 sq ft (345 pounds / acre)	—	7 months	7 months
9 pounds / 1000 sq ft (393 pounds / acre)	—	—	9 months
10.3 pounds / 1000 sq ft (448 pounds / acre)	—	—	10 months

SPREADER SETTINGS to apply at the listed pounds per 1000 square feet						
	2.75 lbs	4.1 lbs	5.2 lbs	6 lbs	7.9 lbs	11.9 lbs
Spreader A	X	X	X	X	X	X

(May contain additional spreader brands/models, spreader settings and spreader use instructions as appropriate for the product)

**LANDSCAPE ORNAMENTALS** (including established perennials and wildflower plantings): This product may be applied for residual preemergence weed control in ornamentals. Apply at the rate of 5.2 to 11.9 pounds/1000 square feet (225 to 518 pounds/acre) in fall and/or spring. Use higher rates of application for longer control periods. Sequential or single applications are allowed so long as the total amount of product applied does not exceed the maximum annual application rate of 11.9 pounds/1000 square feet (518 pounds/acre) per year.

**APPLICATION TIMING AND INFORMATION:** This product may be applied to newly transplanted and established ornamentals a broadcast, over the top or directed application. Around new transplants, delay application to allow soil to settle and water thoroughly before applying. Apply after cuttings form roots and become established. Apply before budding/grafting or after buds/grafts have taken to avoid any inhibition of the tissue union. This product is a preemergence herbicide and will not control emerged weeds. Most effective weed control in

ornamentals will be obtained when this product is activated by at least 0.5 inch of rainfall or irrigation, or with shallow (1 to 2 inch) mechanical incorporation, prior to weed seed germination and within 14 days following application. Best weed control is obtained when applied to soil free of clods, weeds, and debris such as leaves. Prior to application, control existing vegetation by hand weeding, cultivation or the use of an appropriate postemergence herbicide.

**TOLERANT ORNAMENTAL SPECIES:** This product will not harm most ornamental trees, shrubs and flowers. The species listed below are tolerant to this product. Best results will be obtained when product is uniformly applied to the soil surface; avoid applying to ornamental shoots which may defeat the effort to get uniform distribution on the soil surface. This product may be applied over the top of these species without injury.

SCIENTIFIC NAME	COMMON NAME
Abies spp.	Fir species** (Balsam, Frasier, Noble, etc.)
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	Barberry
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
Citrus spp.	Citrus species*
Cornus florida	Flowering Dogwood
C. stolonifera	American Dogwood
Cortaderia selloana	Pampas Grass
Cotoneaster apiculatus	Cranberry Cotoneaster
C. buxifolius	Cotoneaster
C. dammeri	Bearberry Cotoneaster
C. microphyllus	Rockspray Cotoneaster
Cretaeus spp.	Hawthorne
Cupressus sempervirens	Italian Cypress
Delasperma alba	White Trailing Ice Plant
Dodonea viscosa	Hop Bush
Elaeagnus pungens	Silverberry
Euonymus fortunei	Wintercreeper
E. japonica	Evergreen Euonymus
E. kiautschovica	Spreading Euonymus
Fatsia japonica	Japanese Aralia
Forsythia intermedia	Border Forsythia
F. viridissima	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
I. crenata	Japanese Holly
I. opaca	American Holly
I. peryi	Holly
I. vomitoria	Yaupon
Iris spp.	Iris species**
Jasminum nudiflorum	Winter Jasmine
Juniperus chinensis	Chinese Juniper
J. conferta	Shore Juniper
J. horizontalis	Creeping Juniper
Juglans sp.	Walnut*

REC'D MAY 2 1993

Justicia brandegeana	Shrimp Plant
Lagerstromia indica	Crepe Myrtle
Ligustrum amurense	Amur Privet
L. japonicum	Japanese Privet
L. lucidum	Glossy Privet (Waxleaf)
Liriope muscari	Big Blue Lily Turf
Lonicera japonica	Japanese Honeysuckle
L. tatarica	Tatarian Honeysuckle
Magnolia spp.	Magnolia species**
Maleophora luteola	Ice Plant
Malus sp.	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	Fraser's Photinia (Redtip)
Picea spp.	Spruce species** (Colorado Blue, Norway, etc.)
Pieris japonica	Lily-of-the-Valley Shrub
Pinus brutia	Calabrian Pine
P. canariensis	Canary Island Pine
P. elliotii	Slash Pine
P. halepensis	Aleppo Pine
P. nigra	Austrian Black Pine
P. austriaca	Longleaf Pine
P. jeffersonii	Monterey Pine
P. strobus	Eastern White Pine
P. sylvestris	Scotch Pine
P. taeda	Loblolly Pine
P. thunbergiana	Japanese Black Pine
P. virginiana	Virginia Pine
Pistachio sp.	Pistachio*
Pittosporum rhombifolium	Queensland Pittosporum
P. tobira	Japanese Pittosporum
Podocarpus macrophyllus	Japanese Yew
Prunus laurocerasus	English Laurel
Prunus sp.	Almond, Apricot, Nectarine, Peach, Plum and Prune*
Pseudotsuga menziesii	Douglas Fir**
Pyracantha coccinea	Firethorn (Scarlet)
P. fortuneana	Firethorn
P. koidzumii	Firethorn
Pyrus sp.	Bradford Pear sp.
Quercus spp.	Oak species
Raphiolepis indica	Indian Hawthorne
Rhododendron	'Coral Bells,' 'Formosa,' 'Hino-crimson,' 'Indica Azalea'
R. 'Indica Azalea'	'PJM,' 'Roseum Elegans'
R. 'Bankslae'	Lady Bank's Rose
Rosmarinus officinalis	Rosemary
Santolina virens	Santolina
Sedum album	Stonecrop
Syzygium paniculatum	Japanese Boxcherry
Taxus cuspidata	Japanese Yew
T. media	Yew
Thuja occidentalis	American Arborvitae
Trachelospermum asiaticum	Star Jasmine
Tsuga canadensis	Canada Hemlock
Tulip spp.	Tulip species
Viburnum japonicum	Japanese Viburnum
V. odoratissimum	Sweet Viburnum
V. plicatum	Japanese Snowball
V. rigidum	Canary Island Viburnum
V. tinus	Laurustinus
V. trilobium	Cranberry Bush
V. wrightii	Leatherleaf Viburnum
Vinca major	Vinca
Vinca minor	Dwarf Periwinkle
Vitis sp.	Grape*
Weigela florida	Old Fashioned Weigela
Yucca aloifolia	Spanish Bayonet
Y. filamentosa	Yucca, Adam's Needle

\*Ornamental species only. Do not use on food producing trees or vines.  
 \*\*For use on landscape ornamental sites.

## STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage or disposal.  
**STORAGE:** Store in original container in a locked storage area out of reach of children and domestic animals.

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

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

(Alternate wording for household use:)

**PESTICIDE DISPOSAL:** Securely wrap original container in several layers of newspaper and discard in trash.

**CONTAINER DISPOSAL:** Do not reuse bag. Fold empty bag and discard in trash.

**GUARANTEE:** This product is unconditionally guaranteed.

(Alternate wording for warranty statement:)

**GREEN GUARANTEED:** Your satisfaction is guaranteed when this product is used in accordance with instructions. If product performance is less than satisfactory, seller will refund the full purchase price with evidence of purchase.

(Alternate wording for warranty statement:)

**NOTICE:** Buyer and user assumes all risks and liability of use, storage and/or handling of this product not in accordance with the terms of this label.

(Alternate wording for warranty statement:)

**WARRANTY AND DISCLAIMER:** Manufacturer/seller warrants that this product conforms to the ingredient statement on the label, and that the product is reasonably suited for the labeled use when applied according to directions. Buyer and user assumes all risks and liability of use, storage and/or handling of this product not in accordance with the terms of this label.

(Alternate wording for warranty statement:)

**WARRANTY AND DISCLAIMER:** Manufacturer/seller warrants that this product conforms to the ingredient statement on the label, and that the product is reasonably suited for the labeled use when applied according to directions. No other warranty, expressed or implied, is made concerning the merchantability or fitness for a particular purpose. Manufacturer/seller's liability shall be limited to the purchase price of the product. In no case shall manufacturer/seller be liable for consequential or incidental damages or loss. Buyer and user assumes all risks and liability of use, storage and/or handling of this product not in accordance with the terms of this label.

(Alternate wording for warranty statement:)

**WARRANTY AND DISCLAIMER:** Manufacturer/seller warrants that this product conforms to the ingredient statement on the label, and that the product is reasonably suited for the labeled use when applied according to directions. No other warranty, expressed or implied, is made concerning the merchantability or fitness for a particular purpose. Manufacturer/seller's liability shall be limited to the purchase price of the product. In no case shall manufacturer/seller be liable for consequential or incidental damages or loss. Buyer and user assumes all risks and liability of use, storage and/or handling of this product not in accordance with the terms of this label. Products not accepted under these terms should be returned within 20 days in the original, unopened container for return of purchase price.

NET WEIGHT: 13.75 lbs (or 16.5, 18, 20.63, 27.5, 33, 50 lbs)

(Label for EPA Reg. No 32802-70, PAGE 3 OF 3)