

DEC - 3 1996

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 0.20 Barricade®
Preemergence Herbicide
EPA Registration No. 32802-65
Application Dated September 4, 1996, 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; and Application
Dated October 29, 1996, Revisions in response To
Agency's Letter, and Other Clarifying Revisions

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:

1. Delete the superscripts on the weeds listed: goosegrass, shepard's purse and rescuegrass.
2. In same paragraph revise the "(see Recommended Application Rates table)" to read: "(see Minimum and Maximum Application Rates (by Turf Grass Species)" table in the Rates of Application section of this label.
3. Under "When To Apply To Established Turf", in the first sentences delete the phrase "of the target weeds" and replace it with the phrase "of weed seeds".
4. Of the Table "Minimum and Maximum Application Rates (by Turf Grass Species)" footnote 1, the statement must read: "These are the maximum rates per calendar year".
5. In the paragraph that follows the table, revise the sentence that reads: "Use the higher rates listed for higher level of weed contrl"; to read: Use the higher rates listed for longer periods of weed control".

CONCURRENCES

SYMBOL								
SURNAME			BEST AVAILABLE COPY					
DATE								

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6. Submit one (1) printed copy of your final printed labeling before you release the product for shipment.

If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA, section 6(e). Your release for shipment of 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 (7505C)

E.Wilson:Diskette prodimine:100p:11-26-96

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5096

CRABGRASS PREVENTER PLUS WITH .20 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: [N³,N³-Di-n-propyl-2,4-dinitro-6-(trifluoromethyl)-m-phenylenediamine] 0.20%

INERT INGREDIENTS: 99.80%

TOTAL: 100.00%

EPA Reg. No. 32802-65

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 name of Sandoz, Ltd.

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.

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.

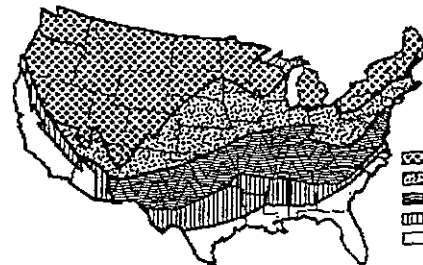
This product is a selective preemergence herbicide that provides residual control of many grass and broadleaf weeds in established lawns and ornamental turf (excluding golf course putting greens), landscape ornamentals and established perennials and wildflower plantings. It controls susceptible weeds 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; goosegrass¹; henbit; itchgrass; johnsongrass (from seed); junglerice; knotweed; kochia; lambsquarter, common; lovegrass; panicum (Texas, fall, browntop); pigweed; purslane, common; pusley, Florida; rescuegrass²; shepard's purse²; signalgrass, broadleaf; speedwell, Persian; sprangletop; spurge, prostrate; witchgrass; woodsorrel, yellow (from seed).

¹In many areas a single application of 7.6 to 17.2 pounds/1000 square feet (330 to 750 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 7.6 to 11.5 pounds / 1000 square feet (330 to 500 pounds/acre), followed after 60 to 90 days by a second application at doses that would not exceed the maximum annual rate (see Recommended Application Rates table).

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

³Suppression only.

WHEN TO APPLY TO ESTABLISHED TURF: This product must be applied prior to germination of the target weeds, 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 32802-65, PAGE 1 OF 3)

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Turf Species	APPLICATION RATES (by Turf Grass Species)	
	Minimum Rate	Maximum Annual Rate ¹
Bahia grass, Bermudagrass ² Centipedegrass, Zoysiagrass Seashore Paspalum St. Augustinegrass ³ Tall Fescue (including turf-type)	4 lbs / 1000 sq ft (174 lbs / acre)	17.2 lbs / 1000 sq ft per year (750 lbs / acre per year)
Buffalograss Kentucky Bluegrass Perennial Ryegrass	4 lbs / 1000 sq ft (174 lbs / acre)	11.5 lbs / 1000 sq ft per year (500 lbs / acre per year)
Creeping Red Fescue	4 lbs / 1000 sq ft (174 lbs / acre)	8.5 lbs / 1000 sq ft per year (370 lbs / acre per year)
Creeping Bentgrass	4 lbs / 1000 sq ft (174 lbs / acre)	7.6 lbs / 1000 sq ft per year (330 lbs / acre per year)

¹These are the maximum rate per calendar year by species limitations.
²May be used on newly sprigged or plugged Bermudagrass at rates not to exceed 6 pounds/1000 square feet (260 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.
³Use an initial rate of 8.5 to 11.5 pounds/1000 square feet (370 to 500 pounds/acre) per application followed by sequential applications at rates that will not exceed the maximum annual rate of 17.2 pounds/1000 square feet (750 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 total amount of product applied does not exceed the maximum annual application rates recommended for each turf species. Length of time of residual weed control provided by this product is related to the rate applied. Use the higher rates listed for higher level 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
4 pounds / 1000 sq ft (174 pounds / acre)	4 months	4 months	4 months
7.6 pounds / 1000 sq ft (330 pounds / acre)	5 months	4 months	4 months
8.5 pounds / 1000 sq ft (370 pounds / acre)	6 months	5 months	5 months
9.2 pounds / 1000 sq ft (400 pounds / acre)	—	6 months	6 months
11.5 pounds / 1000 sq ft (500 pounds / acre)	—	7 months	7 months
13 pounds / 1000 sq ft (570 pounds / acre)	—	—	9 months
14.9 pounds / 1000 sq ft (650 pounds / acre)	—	—	10 months

SPREADER SETTINGS to apply at the listed pounds per 1000 square feet	USE RATE					
	3.7 lbs	5.7 lbs	7.6 lbs	8.5 lbs	11.5 lbs	17.2 lbs
Setting 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 7.6 to 17.2 pounds/1000 square feet (330 to 750 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 17.2 pounds/1000 square feet (750 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, Fraser, 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	Barbery
B. julianae	Wintergreen Barbery
B. mentorensis	Mentor Barbery
B. thunbergii	Japanese Barbery
B. verruculosa	Warty Barbery
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. pernyi	Holly
I. vomitoria	Yaupon
Iris spp.	Iris species**
Jasminium nudiflorum	Winter Jasmine
Juniperus chinensis	Chinese Juniper
J. conferta	Shore Juniper
J. horizontalis	Creeping Juniper
Juglans sp.	Walnut*

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**
Malephora 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. palustris	Longleaf Pine
P. rigida	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,' (including Azalea)
R. banksiae	Lady Bank's Rose
R. 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:)

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.

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**ACCEPTED
with COMMENTS
In EPA Letter Dated**

DEC - 3 1996

**Under the Federal Insecticide,
Fungicide, and Rodenticide Act
as amended, for the pesticide
registered under EPA Reg. No.
32802-65**