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US ENVIRONMENTAL PROTECTION AGENCY OFFICE OF PESTICIDES PROGRAMS REGISTRATION DIVISION (75-767) WASHINGTON, DC 20460	EPA REGISTRATION NO.  59144-17  TERM OF ISSUANCE	DATE AR 15 5 1996
NOTICE OF PESTICIDE: REGISTRATION	Unconditional NAME OF PESTICIDE PRODUCT	
(Under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended)	Pennington Crabgra With Fertilizer	ss Preventer 275
NAME AND ADDRESS OF REGISTRANT (Include ZIP code)		
F		F 18.12. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.
Gro Rec, Inc. c/o Relly Products P.U. Box 1508 L: Covington, GA 30209	· · · · · · · · · · · · · · · · · · ·	
NOTE: Changes in labeling formula differing in substance fro submitted to and accepted by the Registration Division prior product always refer to the above U.S. EPA registration number	to use of the label in commerce.	vith this registration must be In any correspondence on this
On the basis of information furnished by the registrant, the at the Federal Insecticide, Fungicide, and Rodenticide Act.	oove named pesticide is hereby	Registered/Reregistered under
A copy of the labeling accepted in connection with this Regis	stration/Reregistration is return	ned herewith.
icide in accordance with the Act. The acceptance of any nam Act is not to be construed as giving the registrant a right to e by others.  This product is registered in a U(c)(5) provided that you:	exclusive use of the name or to	its use if it has been covered
1. And to page 14 of the enclose "Limitation of Marranty and statement: "Gro Tec, Inc. go extent of the purchase price to label directions."; which letter to Sandoz Agro, Inc.  2. Submit one (1) copy of the release the product for ship	Limitation of Liability uarantees this product only when used according you requested in a se dated March 6, 1996. Final printed labeling	to the ding parate
If these conditions are not complic subject to cancellation in accordance wi for shipment of the product constitutes A stamped copy of the label is enclosed	ith FIFRA section 6(e). acceptance of these of	Your release
	•	
Produc . Fungi	e I. Miller  ct Manager (23)  cide-Herbicide Branch  tration Division (75050	
ATTACHMENT IS APPLICABLE		*
*		4

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EPA Form 8570-6 (Rev. 5-76)

# PENNINGTON CRABGRASS PREVENTER PLUS\* FERTILIZER W/BARRICADE 0.275% #

**ACTIVE INGREDIENT:** 

Prodiamine: [N<sup>3</sup>,N<sup>3</sup>-Di-<u>n</u>-propyl-2,4-dinitro-6-(trifluoromethyl)-<u>m</u>-

INERT INGREDIENTS: ......99.725%

TOTAL: ......100.0%

Guaranteed Fertilizer Analysis:

Nitrogen 32 % (N)

Phosphorus 4 %  $(P_2O_5)$ Potassium 6 %  $(K_2O)$ 

Nitrogen from: Urea formaldehyde, Urea, Ammonia

ACCEPTED
with COMMENTS
In EPA Letter Dated
MAR 1 5 1996

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

For selective preemergence control of grass and broadleaf weeds in:

- established turf grasses (excluding golf course putting greens) and lawns
- landscape ornamentals (including established perennials & wildflower plantings)

## KEEP OUT OF REACH OF CHILDREN

# CAUTION

See the following section, <u>Precautionary Statements, Hazards To Humans and Domestic</u>

Animals, for additional information.

Net Weight:

EPA Reg. No. 59144-17 \*

Gro Tec, Inc. P.O. Box 290 Madison, GA 30650

BARRICADE® is a Registered Trademark of Sandoz, Ltd.

#### 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 frequently repeated skin contact while handling the material may cause allergic reactions in some individuals.

## Statements 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 victim 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.

#### STORAGE AND DISPOSAL \_ ...

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

#### STORAGE

Store in original container away from other 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

<u>Paper containers:</u> 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.

## **DIRECTIONS FOR USE**

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

This product is a selective preemergence herbicide that provides residual control of many grass and broadleaf weeds in

- established turf grasses (excluding golf course putting greens) and lawns
- landscape ornamentals
- established perennials & wildflower plantings

This product controls susceptible weeds by inhibiting weed seeds germination and root development. 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 following application.

Not for use on plants being grown (1) for sale or other commercial use, (2) for commercial seed production, or (3) 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.

Do not graze or feed livestock forage cut from areas treated with this product.

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

Do not apply aerially.

Do not apply to golf course putting greens.

# **Application Directions**

Apply uniformly through suitable, calibrated commercial application equipment.

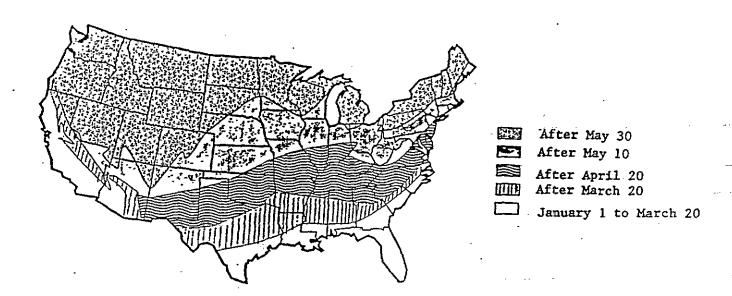
## **ESTABLISHED TURF**

This product is a selective preemergence herbicide that, when properly applied, will control certain grass and broadleaf weeds in established turf grasses and lawns. The maximum amount of this product that may be applied per year is given for each turf grass species in the Maximum Annual Rates section of this label.

Most effective weed control in turf grasses 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 following application. See the map below for approximate crabgrass seed germination dates.

CRABGRASS SEED GERMINATION DATES

Approximate Date



## **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 cut treated sod before 120 days after application. Do not apply to newly set sod until the following year.

Application of this product to turf stressed by drought, low fertility, or pest damage may result in turf injury.

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

Do not apply this product to putting greens or areas where dichondra, colonial bentgrass, velvet bentgrass or annual bluegrass (*Poa annua*) are desirable species.

# Rates of Application

This product may be applied as a single application or in sequential applications to control weeds germinating throughout the year. All applications must be made prior to germination of the target weeds. This product will not control established weeds.

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

# Maximum Annual Rates

This product is recommended for use on the turf grass species listed in the following table. Do not exceed the maximum yearly rate as given in the following table:

MAXIMUM APPLICATION RATE/CALENDAR YEAR of PENNINGTON CRABGRASS PREVENTER 0.275% by Turf Grass Species 1				
Turf Species:	Ib PENNINGTON CRABGRASS PREVENTER® 0.275%/A	lb ai/A		
Bermudagrass <sup>2</sup> Bahiagrass Centipedegrass Seashore Paspalum St. Augustinegrass <sup>3</sup> Tall Fescue (including turf-type) Zoysia		1.5		
Buffalograss Kentucky Bluegrass Perennial Ryegrass	- 365 **	1.0		
Creeping Red Fescue	275 🦻	0.75		
Creeping Bentgrass	235 🦸	0.65		

These are the maximum rates per calendar year by species limitations.

- May be used on newly sprigged or plugged Bermudagrass at rates not to exceed 190 lb/A. Newly sprigged or plugged Bermudagrass stolon rooting may be temporarily retarded. Suppression only of Foxtail, Goosegrass and Rescuegrass due to reduced product rates used in sprigging situations.
- Use at an initial rate of 275 to 365 lb/Å per application followed by sequential applications at doses that would not exceed the maximum annual application rate of 545 lb/A/yr. ♠
- Do not apply more than 545 lb of this product per calendar year.
- Use higher rates of this product to achieve higher levels of fertility and weed control for each turf type.

#### Weeds Controlled

When used in accordance with this label this product will provide control of the following weeds:

Barnyardgrass

Bluegrass, Annual (Poa annua)

Crabgrass (Large, Smooth)

Crowfootgrass Cupgrass, Woolly Foxtails, Annual

Goosegrass<sup>1</sup>

Johnsongrass (from seed)

Junglerice Lovegrass

Panicum (Texas, Fall, Browntop)

Rescuegrass<sup>3</sup>

Signalgrass, Broadleaf

Sprangletop Witchgrass Carpetweed

Chickweed, Common

Chickweed, Mouseear (from seed)

Henbit

Knotweed

Kochia

Lambsquarter, Common

Pigweed

Purslane, Common

Pusley, Florida

Shepherd's Purse<sup>2</sup>

Speedwell, Persian

Spurge, Prostrate

Woodsorrel, Yellow (from seed)

- In many areas a single application of 235 to 545 lb/Å of this product will control goosegrass. However, under heavy goosegrass pressure and/or an extended growing season, most effective weed control may be obtained by making an initial application of 235 to 365 lb/Å followed after 60 to 90 days by a second application at doses that would not exceed those given in the Maximum Annual Rate Table. Do not exceed the maximum rate for turf grass species listed in the Maximum Annual Rate Table above.
- Applications for this weed should be made in late summer, fall or winter prior to germination.
- <sup>3</sup> Suppression only.

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. All applications must be made prior to germination of the weed seeds.

# WHEN TO APPLY AFTER OVERSEEDING TURF

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 BARRICADE is applied before seedling secondary roots are in the second inch of soil, not thatch plus soil.

# WHEN TO OVERSEED AFTER APPLICATION

BARRICADE will inhibit the germination of turf species if overseeded too soon after application. Follow rates and intervals in the table below for best overseeding/reseeding results.

PENNINGTON PREVENTER 0.2	CRABGRASS ♥ 75% Rate (lb/A)	Interv	al Before Overse	eding
Product	ai	North	Transition	South
₹ 180 🖤	.50	4 mo	4 mo	4 mo
235 #	.66	5 mo	4 mo	4 mo
275 ³	.74	· 6 mo	5 mo 🚆	5 mo
290 🔻	.80		6 mo	6 mo
365 🐧	1.00	=	7 mo	7 mo
415	1.14			9 mo
475 🤅	1.30 -			10 mo

# LANDSCAPE ORNAMENTALS (including Established Perennials and Wildflower Plantings)

This product may be applied for residual preemergence weed control in ornamentals.

#### **Use Rates**

# **Application Timing and Information**

This product may be applied to newly transplanted and established ornamentals as a broadcast, over the top or directed application. Irrigation or rainfall soon after application will wash residues off plant foliage and activate this product in the soil.

This product may be applied at any time to established plants. Delay application to allow soil to settle around new transplants and water thoroughly before applying this product. Apply this product 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 this product is applied to soil free of clods, weeds, and debris such as leaves. Prior to application of this product, 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 this 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

# Apies spp.

Acer palmatum
A. platanoides
Actinidia chinensis
Agapanthus africanus
Arctostaphylos densiflora
Arctotheca calendula

Aucuba japonica Barberis gladwynensis

B. julianae
B. mentorensis
B. thunbergii
B. verruculosa
Buxus microphylla

Calluna vulgaris Carpobrotus edulis Cassia artemisoides Ceanothus rigidus

Callistemon viminalis

Chamaecyparis pisifera Cleyera japonica

Cleyera japonica
Citrus spp.
Cornus florida
C. stōlonifera
Cortaderia selloana
Cotoneaster apiculatus

C. buxifolius
C. dammeri
C. microphyllus
Cretaegus spp.

Cupressus sempervirens

Delasperma alba

Fir species \*\*

(Balsam, Fraser, Noble, etc.)

Japanese Maple Norway Maple

Kiwi\*

Lily-of-the-Nile (African Lily)

Vine Hill Manzanita

Capë Weed

Japanese Aucuba

Barberry

Wintergreen Barberry Mentor Barberry Japanese Barberry Warty Barberry Japanese Boxwood Weeping Bottlebrush

Scotch Heather

Hottentot Fig (Ice Plant)

Feathery Cassia

Wild Lilac
False Cypress

Cleyera

Citrus species\* — Flowering Dogwood American Dogwood

Pampas Grass

Cranberry Cotoneaster

Cotoneaster

Bearberry Cotoneaster Rockspray Cotoneaster

Hawthorne Italian Cypress

White Trailing Ice Plant

<sup>\*</sup>Ornamental species only. Do not use on food producing trees or vines.

<sup>\*\*</sup>For use on landscape ornamental sites.

Scientific name	Common name	
Dodonea viscosa	Hop Bush	
Elaeagnus pungens	Silverberry	
Euōnymus fortunei	Wintercreeper	
E. japonica	Japanese Spindle Tree (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	
llex 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**	
Maleophora luteola	Ice Plant	
Malus sp.	Crabapple*	
Nandina domestica	Heavenly Bamboo	
Narcissus spp.	Narcissus species**	
Mariana and	Olemades	

<sup>\*</sup>Ornamental species only. Do not use on food producing trees or vines.

Nerium spp.

Oleander

<sup>\*\*</sup>For use on landscape ornamental sites.

## Scientific name

Olea europa

Ophiopogon japonicus Osteospermum fruticosum

Oxydendrum arboreum

Persea americana Photinia fraseri

Picea spp. Pieris japonica

Pinus brutia

P. canariensis

P. elliottii

P. halepensis

P. nigra

P. palustrus .

P. radiata

P. strobus

P. sylvestris

P. taeda

P. thunbergiana

P. virginiana

Pistachio sp.

Pittosporum rhombifolium

P. tobira

Podocarpus macrophyllus

Prunus laurocerasus

Prunus sp.

Pseudotsuga menziesii

Pyracantha coccinea

P. fortuneana

P. koidzumii

Pyrus sp.

Quercus spp.

Raphiolepis indica

#### Common name

Olive\*

Mondo Grass

Trailing African Daisy

Sourwood

Avocado\*

Frasier's Photinia (Redtip)

Spruce species\*\* (Colorado Blue, Norway, etc.)

Lily-of-the-Valley Shrub

Calabrian Pine

Canary Island Pine

Slash Pine

Aleppo Pine

Austrian Black Pine

Longleaf Pine

Monterey Pine

Eastern White Pine

Scotch Pine

Lobiolly Pine

Japanese Black Pine

Virginia Pine

Pistachio\*

Queensland Pittosporum

Japanese Pittosporum

Japanese Yew

English Laurel

Almond, Apricot, Nectarine,

Peach, Plum and Prune\*

Douglas Fir \* \*

Firethorn (Scarlet)

Firethorn

Firethorn

Bradford Pear sp.

Oak species

Indian Hawthorne

<sup>\*</sup>Ornamental species only. Do not use on food producing trees or vines.

<sup>\*\*</sup>For use on landscape ornamental sites.

Scientific name	Common name
Rhododendron	'Coral Bells'
(including Azalea)	'Formosa'
	'Hino-crimson'
	'PJM'
	'Roseum Elegans'
Rosa banksiae	Lady Bank's Rose
Rosmarinus officinalis	Rosemary
Santolina virens	•
Sedum album	Stonecrop
Syzygium paniculatum	Japanese Boxcherry
Taxus cuspidata	Japanese Yew
T. media	Yew
Thuja occidentalis	-American Arborvitae
Trachelospermum asiatum	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

<sup>\*</sup>Ornamental species only. Do not use on food producing trees or vines...