


Reg # 45639-68

PM-23

197

Please read instructions on reverse before completing form.

Form Approved. OMB No. 2070-0060. Approval expires 11-30-93

(A) 	United States Environmental Protection Agency Office of Pesticide Programs (H7505C) Washington, DC 20460	<input type="checkbox"/> Registration <input type="checkbox"/> Amendment <input checked="" type="checkbox"/> Other	OPP Identifier Number <b>185950</b>
	Application for Pesticide:		

## Section I

1. Company/Product Number <b>45639-68</b>	2. EPA Product Manager <b>Joanne Miller</b>	3. Proposed Classification <input checked="" type="checkbox"/> None <input type="checkbox"/> Restricted
4. Company/Product (Name) <b>PROGRASS EC</b>	PM# <b>23</b>	
5. Name and Address of Applicant (Include ZIP Code) <b>NOR-AM Chemical Company Little Falls Centre One 2711 Centerville Road Wilmington, DE 19808</b> <small>Check if this is a new address</small>	6. Expedited Review. In accordance with FIFRA Section 3(c)(3) (b)(i), my product is similar or identical in composition and labeling to:  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.)


Notification: Compliance with PR Notice 83-3

**BEST AVAILABLE COPY**NOTIFICATION  
LABEL NOT REVIEWED  
PER PR NOTICE 83-3DATE **7/1/93**

## 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 type="checkbox"/> No	Water Soluble Packaging <input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Metal <input type="checkbox"/> Plastic <input type="checkbox"/> Glass <input type="checkbox"/> Paper <input type="checkbox"/> Other (Specify) _____		
* Certification must be submitted.		If "Yes," Unit Package wgt. _____ No. per container _____	If "Yes," Package wgt. _____ No. per container _____		
3. Location of Net Contents Information <input type="checkbox"/> Label <input type="checkbox"/> Container		4. Size(s) of Retail Container		5. Location of Label Directions <input 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 type="checkbox"/> Paper glued <input type="checkbox"/> Stenciled		<input type="checkbox"/> Other _____			

## Section IV

1. Contact Point (Complete items directly below for identification of individual to be contacted, if necessary, to process this application.)				
Name <b>Richard R. Stevens</b>		Title <b>Registration Project Manager</b>		
		Telephone No. (Include Area Code) <b>302-892-3034</b>		
Certification 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)	
2. Signature 		3. Title <b>Registration Project Manager</b>		
4. Typed Name <b>Richard R. Stevens</b>		5. Date <b>6/3/93</b>		

June 2, 1993

Attn: Ms. Joanne I. Miller, PM (23), RD  
Document Processing Desk  
Office of Pesticide Programs - H7505C  
U. S. Environmental Protection Agency  
Room 266A, Crystal Mall 2  
1921 Jefferson Davis Highway  
Arlington, VA 22202

**NOR-AM Chemical Company**

3509 Silverside Road  
P O Box 7495 • Wilmington, DE 19803  
Telephone: (302) 477-3000  
Telefax: (302) 477-3013

Subject: **PROGRASS EC**  
**EPA Reg. No. 45639-68**  
**Notification of Compliance with PR Notice 93-3**

Dear Ms. Miller:

NOR-AM Chemical Company hereby makes notification to the Agency of insertion of the newly revised water/wetlands statement and replacement of the previous statement in the Environmental Hazards section of the PROGRASS EC label. This action is to comply with the label changes required by PR NOTICE 93-3, and is in accordance with the notification procedure promulgated in PR NOTICE 88-6 and 40 CFR 152.46.

In support of this notification, I enclose a completed EPA Form 8570-1 and five (5) copies of the revised labeling.

If you have any questions concerning this action, please contact me at this office, telephone (302) 892-3034.

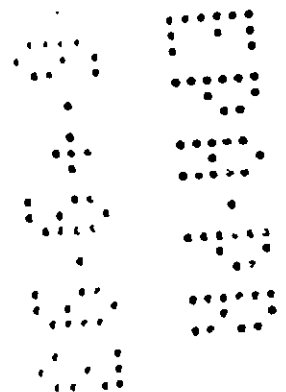
Sincerely,



Richard R. Stevens  
Registration Project Manager

RRS:mab  
8393.rrs

**BEST AVAILABLE COPY**



# SPECIMEN LABEL

397

NOTIFICATION  
LABEL NOT REVIEWED  
PER FIF NOTICES 88-1  
DATE 7/1/93

# Prograss®

## EMULSIFIABLE CONCENTRATE

Selective Herbicide For Use By Professional Applicators On  
Ornamental Turf Only

### ACTIVE INGREDIENTS:

Ethofumesate (2-ethoxy-2, 3-d hydro-3, 3-d methyl-5-benzofuranyl  
methanesulfonate)

19%

### INERT INGREDIENTS:

81%

TOTAL

100%

This product contains 1.5 lb active ingredient per gallon

EPA Reg. No. 45639-68

PRECAUCION AL USUARIO: Si usted no lee ingles, no use este pro-  
ducto hasta que la etiqueta haya sido explicada ampliamente.

## KEEP OUT OF REACH OF CHILDREN DANGER

CORROSIVE. CAUSES EYE DAMAGE

WEAR GOGGLES OR FACE SHIELD WHEN HANDLING

### STATEMENT OF PRACTICAL TREATMENT

IF SWALLOWED: Drink promptly a large quantity of milk, emulsifies, gelatin solution or if these are not available, drink large quantities of water. Also take 10-15 Call up physician

IF ON SKIN: Flush with plenty of water for at least 15 minutes

IF IN EYES: Flush carefully, flush with plenty of water for at least 15 minutes. Call up physician

DO NOT REUSE EMPTY CONTAINER

**NOR-AM**  
NORAM AMERICA, INC.

SPECIALTY PRODUCTS DIVISION  
EPA Reg. No. 45639-68  
2711 Canterbury Road  
Wilmington, DE 19804

### NET CONTENTS:

1 Gallon (128 fl. oz.)  
308-007-001-1072-105

BEST AVAILABLE COPY

## PRECAUTIONARY STATEMENTS

### HAZARDS TO HUMANS AND DOMESTIC ANIMALS

# DANGER

Corrosive. Causes eye damage. Do not get in eyes. Wear goggles or face shield when handling. Harmful if absorbed through skin. Avoid contact with skin.

**First Aid**—In case of contact, immediately flush eyes or skin with plenty of water for at least 15 minutes. For eyes, call a physician. Get medical attention if skin irritation persists. Remove and wash contaminated clothing before reuse.

**Environmental Hazards**—For terrestrial uses, do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not apply when weather conditions favor drift from treated areas. Do not contaminate water when disposing of equipment washwaters.

**Physical or Chemical Hazards**—Do not use, pour, spill or store near heat or open flames.

## STORAGE AND DISPOSAL

**STORAGE:** Store in a cool place above 34°F.

**PESTICIDE DISPOSAL:** Do not contaminate water, food or feed by storage or disposal. Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

**CONTAINER DISPOSAL:** Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

**IN CASE OF FIRE, LEAKY, OR DAMAGED CONTAINERS, OR OTHER EMERGENCY, REPORT AT ONCE BY TOLL-FREE TELEPHONE TO: 800-424-9300.**

## GENERAL INFORMATION

PROGRASS® is an emulsifiable formulation containing 1.5 lbs. active ingredient per U.S. gallon for use on established perennial ryegrass, Kentucky Bluegrass, creeping bentgrass, turf-type tall fescue, St. Augustine grass, and dormant bermudagrass for the control and/or suppression of specific annual grasses and broadleaf weeds. It may also be used, as directed, after overseeding specific grasses.

PROGRASS is intended for professional use only on the ornamental turf of sites such as golf courses, sod farms, parks, cemeteries, lawns of commercial establishments and homeowner lawns (see Use Precautions below).

PROGRASS has both preemergent and early (two-leaf stage) postemergent activity; it is used most effectively in programs emphasizing both approaches.

## WEED SPECIES CONTROLLED

### PREEMERGENCE

#### Annual Grasses

Annual bluegrass .....	<i>Poa annua</i>
Large crabgrass .....	<i>Digitaria sanguinalis</i>
Barnyardgrass .....	<i>Echinochloa crus-galli</i>
Green foxtail .....	<i>Setaria viridis</i>
Yellow foxtail .....	<i>Setaria glauca</i>
Canarygrass .....	<i>Phalaris canariensis</i>

#### Annual Broadleaves

Burclover .....	<i>Medicago sp.</i>
Common chickweed .....	<i>Stellaria media</i>
Common purslane .....	<i>Portulaca oleracea</i>
Redroot pigweed .....	<i>Amaranthus retroflexus</i>

PROGRASS will also reduce competition from:

Yellow nutsedge .....	<i>Cyperus esculentus</i>
Purple nutsedge .....	<i>Cyperus rotundus</i>

### POSTEMERGENCE

#### Annual Grasses

Annual bluegrass .....	<i>Poa annua</i>
------------------------	------------------

#### Annual Broadleaves

Common chickweed .....	<i>Stellaria media</i>
White clover .....	<i>Trifolium repens</i>

### PREEMERGENCE/EARLY POSTEMERGENCE

#### Annual Grasses

Smooth crabgrass .....	<i>Digitaria ischaemum</i>
------------------------	----------------------------

## USE PRECAUTIONS

- PROGRASS should be used only for recommended purposes and at the recommended rates (DO NOT OVERTREAT).
- Avoid overlapping when spraying since turf injury may result.
- Avoid applications with flood jet nozzles and hand-held sprayers, since treatments may not be uniform.
- Do not apply this product through any type of irrigation system.
- PROGRASS application is most effective on healthy, vigorously growing turf. A soil fertility test is the best method to determine fertility needs prior to PROGRASS treatment.
- PROGRASS may be applied to homeowner lawns by licensed or certified applicators. PROGRASS is not intended for use by homeowners.
- When overseeding, use the rate of PROGRASS recommended for the overseeded species. In mixed stands of established turfgrasses, use the rate recommended for the least tolerant species.
- Do not apply PROGRASS within 8 weeks following the application of a Plant Growth Regulator.
- PROGRASS application is recommended for golf course fairways, roughs, and tees but at fairway-height only. Do not apply on greens.
- Do not apply PROGRASS to zoysiagrass and hard or fine fescue; serious injury may result.

**BEST AVAILABLE COPY**

## DIRECTIONS FOR USE

It is a violation of federal law to use this product in a manner inconsistent with its labeling. Do not graze livestock on treated turf. Do not feed treated grass clippings to livestock. Read entire Use Precautions, Directions for Use, and Disclaimer of Warranties before using this product.

## SPRAY EQUIPMENT, APPLICATION, AND PRECAUTIONS

Apply PROGRASS using standard, low pressure (20–50 psi) spray equipment. Spray equipment should be carefully calibrated before use and checked frequently during application. Addition of a spray indicator may improve treatment uniformity. The tank and line should be cleaned and rinsed *before and after* using PROGRASS.

## VARIETAL TOLERANCE

The following turfgrass cultivars have shown tolerance to PROGRASS; however, all species and varieties have not been tested. PROGRASS has been used safely on the following turfgrass cultivars, but its use is not strictly limited to these. Before large scale use of PROGRASS on other cultivars, a tolerance test on a small area is recommended.

- **PERENNIAL RYEGRASS**—Acclaim, Blazer, Dasher, Derby, Elka, Fiesta, Goalie, Hunter, Linn, Loretta, Manhattan II, Palmer, Pennfine, Regal, Yorktown
- **KENTUCKY BLUEGRASS**—Adelphi, American, Aspen, Asset, Challenger, Classic, Emundi, Huntsville, Georgetown, Glade, Haga, Julic, Liberty, Merit, Midnight, Monopoly, Mystic, Parade, Rugby, Sydsport, Touchdown, P-104, Ba 69–82
- **CREeping BENTGRASS**—Carmen, National, Normarc 101, Penncross, Providence, Putter, Tenu 88-1, 88 CBE, and 88 CBL have shown excellent tolerance to PROGRASS. Injury has been noted on Penneagle and Pennlinks occasionally. PROGRASS may cause serious injury to Cohansey, Colonial and south German varieties.
- **TURF-TYPE TALL FESCUE**—America, Arid, Mustang
- **ST. AUGUSTINE GRASS**—Raleigh
- **DORMANT BERMUDAGRASS**—common, Trifgreen, Tidwarf

## RECOMMENDATIONS

### I. COOL SEASON GRASSES

Fall applications to cool season grasses to control *Poa annua* are most effective if application is initiated during the period of maximum weed germination and ended as close to the first killing freeze as possible. Spring applications may be made during the period of maximum weed germination. Consult the university extension service or weed science specialist for these dates in your locality.

**SEE CHART FOR USE RATES AND TIMINGS. READ TEXT BELOW FOR SPECIFIC RECOMMENDATIONS FOR EACH TYPE OF GRASS!**

## II. PERENNIAL RYEGRASS

Application to perennial ryegrass in early to mid-fall or mid-spring is recommended during the primary period of annual bluegrass germination in early fall or late spring, and up to 30 days after annual bluegrass emergence. Spring applications should be used in conjunction with a fall application. Consult Extension Service or University weed specialists for date(s) annual bluegrass germinates in your area.

When overseeding with perennial ryegrass, apply PROGRASS to the seeded area 1 to 2 weeks after emergence of the ryegrass seedlings, when the seedlings are approximately 1" tall or after the first cutting. For overseeding, the soil should be prepared according to recommended horticultural practice. Remove or thoroughly work thatch, as it can reduce the effectiveness of the PROGRASS treatment. Delay application of straw or other mulch until after PROGRASS application. Application to overseeded perennial ryegrass in the fall or spring will also reduce competition from selected broadleaf weeds and crabgrass.

## III. KENTUCKY BLUEGRASS

Apply PROGRASS to bluegrass not less than 8 weeks after germination. Bluegrass overseeded with ryegrass may be treated one to two weeks after ryegrass emergence.

Do not re-seed with Kentucky Bluegrass until six (6) weeks after the last PROGRASS application. For fall application programs of PROGRASS, alternatives are to seed dormant bluegrass in the late fall or to delay re-seeding until the spring.

## IV. CREEPING BENTGRASS

For golf course use, PROGRASS may be applied safely to bentgrass cut at fairway height. Well-drained bentgrass sites are less prone to injury; application to poorly drained sites, even those cut at fairway height, may result in bentgrass injury.

A spring application of PROGRASS following fall applications is useful in further reducing populations of annual bluegrass. The application should follow a spring overseeding program and should occur no earlier than three to four weeks after overseeding with creeping bentgrass.

Do not apply PROGRASS to renovated or overseeded bentgrass fairway turf less than three-four weeks after seedling emergence.

Do not overseed with creeping bentgrass until three (3) to four (4) weeks after the last PROGRASS application.

## V. TURF-TYPE TALL FESCUE

Apply PROGRASS to turf-type tall fescue in the fall. If turf is overseeded with turf-type tall fescue, the initial PROGRASS application and the seeding may be simultaneous.

## VI. ST. AUGUSTINE GRASS (ESTABLISHED TURF)

Apply PROGRASS to St. Augustine grass in the spring and early summer to suppress Bermudagrass seed-head formation or control annual bluegrass. Best results are achieved if three applications are made.

Make the initial application after Bermudagrass dormancy is broken. St. Augustinegrass sod that has been recently harvested may show increased sensitivity to PROGRASS. Therefore, use the lower rate (1 gal/A) until the sod is established.

PROGRASS also suppresses the development of actively-growing Bermudagrass in established St. Augustine grass sod. Multiple, sequential applications are suggested for the longest suppression. Growth of Bermudagrass may resume after application is discontinued.

## VII. OVERSEEDED DORMANT BERMUDAGRASS

Apply PROGRASS to dormant bermudagrass in the fall one to two weeks after emergence of overseeded perennial ryegrass to control annual bluegrass. Treatment to turf that is not fully dormant may cause injury. One or two supplemental applications at 21 to 28 day intervals may be required to maintain control through the winter months. The final PROGRASS application should be made to bermudagrass prior to the breaking of winter dormancy. Late applications to turf that has broken dor-

mancy may temporarily delay resumption of active growth of bermudagrass in the spring. The breaking of winter dormancy will vary according to location and yearly weather.

### IMPORTANT: READ BEFORE USE

By using this product, user or buyer accepts the following conditions, warranty, disclaimer of warranties and limitations of liability.

**CONDITIONS:** The directions for use of this product are believed to be adequate and should be followed carefully. However, because of extreme weather and soil conditions, manner of use and other factors beyond NOR-AM Chemical Company's control, it is impossible for NOR-AM to eliminate all risks associated with the use of this product. As a result, crop injury or ineffectiveness is always possible. All such risks shall be assumed by the user or buyer.

**DISCLAIMER OF WARRANTIES:** THERE ARE NO WARRANTIES, EXPRESS OR IMPLIED, OR MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE OR OTHERWISE, WHICH EXTEND BEYOND THE STATEMENTS MADE ON THIS LABEL. No agent of NOR-AM Chemical Company is authorized to make any warranties beyond those contained herein or to modify the warranties contained herein. UNDER NO CIRCUMSTANCES SHALL NOR-AM CHEMICAL COMPANY BE LIABLE FOR ANY SPECIAL, INDIRECT, OR CONSEQUENTIAL DAMAGES RESULTING FROM USE OR HANDLING OF THIS PRODUCT.

**LIMITATIONS OF LIABILITY:** THE EXCLUSIVE REMEDY OF THE USER OR BUYER FOR ANY AND ALL LOSSES, INJURIES, OR DAMAGE RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, WHETHER IN CONTRACT WARRANTY, TORT, NEGLIGENCE, STRICT LIABILITY OR OTHERWISE, SHALL NOT EXCEED THE PURCHASE PRICE PAID, OR AT NOR-AM'S ELECTION, THE REPLACEMENT OF PRODUCT.

© NOR-AM Chemical Company, 1991

## RECOMMENDED RATES AND TIMINGS<sup>1</sup>

Turf Type	Main Target Pests	Start	# Apps	Spray INT (Days)	Use Rate <sup>2</sup>		Overseeding Safety Interval <sup>3</sup> (Weeks After Emergence)
					Gal/Acre	Oz/1000sq. Ft	
Ryegrass (Est. Turf)	Annual Bluegrass & Common Chickweed	Fall Spring <sup>4</sup>	2-3 1-2 <sup>5</sup>	21-28 —	½-1½	2-4	1-2
Ryegrass (New Seedlings) (Sandy Soils)	Annual Bluegrass & Common Chickweed	Fall	2-3	21-28	1	3	
Ryegrass (New Seedlings) (Silt or Clay Loam Soils)	Annual Bluegrass & Common Chickweed	Fall	2-3	21-28	1½	4	
Kentucky Bluegrass	Annual Bluegrass	Fall	2-3	21-28	½	1½	6
Creeping Bentgrass	Annual Bluegrass	Fall Spring <sup>4</sup>	2-3 1	21-28 —	½ ½	1½ 1½	3-4
Turf-Type Tall Fescue	Annual Bluegrass	Fall	2-3	21-28	½-1½	2-4	0
St. Augustine Grass (Est. Turf)	Bermudagrass Suppression & Seedhead Suppression	Spring	1-3	21-28	1-2	3-6	N/A
Overseeded Dormant Bermudagrass	Annual Bluegrass, Common Chickweed	Fall	2-3	21-28	½-1½	1½-4	N/A

<sup>1</sup>Refer to label text for further instructions regarding each grass species

<sup>2</sup>Apply ½ to 2 gallons of PROGRASS in 20 to 60 gallons of water or 1½ to 6 ounces of PROGRASS in 1 to 3 gallons of water

<sup>3</sup>Interval applies to overseeding specific grass on same type of grass after PROGRASS treatment

<sup>4</sup>Use Spring application after previous fall treatments only

<sup>5</sup>If overseeding in the spring with ryegrass, use 1-2 applications of PROGRASS

BEST AVAILABLE COPY