

2217-947

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460

OFFICE OF CHEMICAL SAFETY  
AND POLLUTION PREVENTION

MAR - 5 2012

James Kunstman, Ph.D.  
PBI/Gordon Corporation  
1217 West 12<sup>th</sup> Street  
P.O. Box 014090  
Kansas City, MO 64101-0090

Subject: Notification per PR Notice 98-10 – Add Alternate Brand Names and Marketing Statements  
EH-1489 Broadleaf Herbicide  
EPA Reg. No. 2217-947  
Application Dated – February 28, 2012

Proposed Alternate Names: Gordon's Avenue South Broadleaf Herbicide for Turf  
Avenue South Broadleaf Herbicide for Turf

Dear Dr. Kunstman:

The Agency is in receipt of your Application for Pesticide Notification under Pesticide Registration Notice (PRN) 98-10 for the subject product.

The Registration Division (RD) has conducted a review of this request for its applicability under PRN 98-10 and finds that the action requested falls within the scope of PRN 98-10. The label submitted with the application has been date-stamped "Notification" and will be placed in our records.

If you have any questions regarding this letter, please contact Maggie Rudick at (703) 347-0257 or [rudick.maggie@epa.gov](mailto:rudick.maggie@epa.gov).

Sincerely,

A handwritten signature in black ink, appearing to read "K Montague".

Kathryn Montague, Product Manager 23  
Herbicide Branch  
Registration Division (7505P)

Handwritten initials in black ink, possibly "JR".



United States  
**Environmental Protection Agency**  
 Washington, DC 20460

<input type="checkbox"/> Registration	OPP Identifier Number
<input type="checkbox"/> Amendment	
<input checked="" type="checkbox"/> Other	

**Application for Pesticide - Section I**

1. Company/Product Number <b>2217- 947</b>	2. EPA Product Manager <b>Kathryn V. Montague</b>	3. Proposed Classification <input checked="" type="checkbox"/> None <input type="checkbox"/> Restricted
4. Company/Product (Name) <b>EH-1489 Herbicide</b>	PM# Product Manager—Team 23	
5. Name and Address of Applicant (Include ZIP Code) PBI/Gordon Corporation Post Office Box 014090 Kansas City, Missouri 64101 <input type="checkbox"/> Check if this is a new address	6. <b>Expedited Review.</b> 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 per Pesticide Registration Notice (PRN) 98-10 Section II(A) and II(N):**

We propose to add/modify the following: Section II (A) Brand Names: Gordon's Avenue South Broadleaf Herbicide for Turf, Avenue South Broadleaf Herbicide for Turf, as shown in the highlighted text on page 1 of the enclosed labeling. And Section II (N): additional Ad claims as listed on page 12 of the enclosed labeling.

e-mail to [jkunstman@pbi-gordon.com](mailto:jkunstman@pbi-gordon.com) FAX: 816-421-2731

**Section - III**

1. Material This Product Will Be Packaged In:			
Child-Resistant Packaging <input type="checkbox"/> Yes* <input checked="" type="checkbox"/> No	Unit Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Water Soluble Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	2. Type of Container <input type="checkbox"/> Metal <input checked="" type="checkbox"/> Plastic <input type="checkbox"/> Glass <input type="checkbox"/> Paper <input type="checkbox"/> Other (Specify) _____
* <b>Certification must be submitted</b>		If "Yes" Unit Packaging wgt. No. per container	If "Yes" Package wgt. No. per Container
3. Location of Net Contents Information <input checked="" type="checkbox"/> Label <input type="checkbox"/> Container		4. Size(s) Retail Container Nonrefillable: 1, 2.5 gallons and 2 x2.5 gallons Refillable: 55 gallons	5. Location of Label Directions <input checked="" 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"/> Other _____ <input checked="" type="checkbox"/> Paper glued <input type="checkbox"/> Stenciled			

**Section - IV**

1. Contact Point (Complete items directly below for identification of individual to be contacted, if necessary, to process this application.)		
Name <b>James L. Kunstman, Ph.D.</b>	Title <b>Director of Regulatory Services</b>	Telephone No. (Include Area Code) <b>816-450-6292</b>
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>Director of Regulatory Services</b>	
4. Typed Name <b>James L. Kunstman, Ph.D.</b>	5. Date <b>February 28, 2012</b>	

February 28, 2012

Document Processing Desk (NOTIF)  
Office of Pesticide Programs (7504P)  
US Environmental Protection Agency  
Room S-4900, One Potomac Yard  
2777 South Crystal Drive  
Arlington, VA 22202-4501  
Attn: Kathryn V. Montague, PM-23

Dear Ms. Montague:

**Subject: Notification per Pesticide Registration Notice (PRN) 98-10:  
EH-1489 Broadleaf Herbicide (EPA Reg No. 2217-947)**

**I. Labeling notification per PRN 98-10, Sec II (A), and Sec II (N).**

- a. We ask to add the alternate brand names: Gordon's Avenue South Broadleaf Herbicide for Turf, and Avenue South Broadleaf Herbicide for Turf
- b. We ask to include the following ad claims:
  - Water Based
  - Post-emergence broadleaf weed control – High turfgrass safety in established St. Augustinegrass
  - (including 'Floratam') and other southern turfgrass species when used as directed.
  - For use on: St. Augustinegrass (including 'Floratam'), bermudagrass, zoysiagrass, centipedegrass,
  - buffalograss and seashore paspalum
  - Will not harm 'Floratam' St. Augustinegrass when used as directed
  - Controls some of the toughest weeds in warm-season turfgrass
  - Provides rapid and effective weed control
  - 4 active ingredients

Please refer to pages 1 and 12 of the draft labeling.

**NOTIFICATION**  
**MAR 05 2012**

**II. Certification statement:** This notification is consistent with the provisions of PR Notice 98-10 and EPA regulations at 40 CFR 152.46, and no other changes have been made to the labeling or the confidential statement of formula of this product. I understand that it is a violation of 18 U.S.C. Sec. 1001 to willfully make any false statement to the EPA. I further understand that if this notification is not consistent with the terms of PR Notice 98-10 and 40 CFR 152.46, this product may be in violation of FIFRA and I may be subject to enforcement action and penalties under Section 12 and 14 of FIFRA.

**III. Enclosures:**

1. Application
2. One (1) copy of draft labeling without annotations
3. One (1) copy of draft labeling with annotations
4. One (1) cd containing electronic copies of the draft labeling



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NOTIFICATION

# EH-1489 BROADLEAF HERBICIDE

MAR 05 2012

## EPA Reg. No. 2217-947

**Alternate Brand Names:** Gordon's Avenue South Broadleaf Herbicide For Turf, Avenue South Broadleaf Herbicide For Turf

KEEP FROM FREEZING

**ACTIVE INGREDIENT:**

2,4-D, dimethylamine salt .....	4.88%
Dicamba, dimethylamine salt .....	2.06%
Penoxsulam .....	0.70%
Sulfentrazone .....	0.70%
<b>OTHER INGREDIENTS:</b> .....	<u>91.66%</u>
<b>TOTAL</b> .....	<b>100.00%</b>

**THIS PRODUCT CONTAINS:**

- 0.060 lb Penoxsulam per gallon
  - 0.060 lb Sulfentrazone per gallon
  - 0.349 lb 2,4-dichlorophenoxyacetic acid equivalent per gallon or 4.05%.
  - 0.147 lb 3,6-dichloro-o-anisic acid equivalent per gallon or 1.71%.
- Isomer Specific by AOAC Methods.

KEEP OUT OF REACH OF CHILDREN

## CAUTION

**STOP! READ THE ENTIRE LABEL FIRST. OBSERVE ALL PRECAUTIONS AND FOLLOW DIRECTIONS CAREFULLY.**

### PRECAUTIONARY STATEMENTS

**Hazards to Human and Domestic Animals**

**CAUTION:** Avoid contact with skin or clothing.

**Personal Protective Equipment (PPE)**

Some materials that are chemical resistant to this product include natural rubber, barrier laminate, butyl rubber, neoprene rubber, and Viton. If you want more options, follow the instructions for category A on an EPA chemical resistance category selection chart.

All mixers, loaders, applicators, and other handlers must wear:

- long-sleeved shirt and long pants,
- shoes and socks,
- chemical-resistant gloves, made of any waterproof material (except for applicators using ground boom equipment) and
- chemical resistant apron when mixing or loading, cleaning up spills or equipment, or otherwise exposed to the concentrate.

See engineering controls for additional requirements.



### User Safety Requirements

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

### Engineering Control Statements

When handlers use closed systems or enclosed cabs in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240 (d)(4-6), the handler PPE requirements may be reduced or modified as specified in the WPS.

#### User Safety Recommendations

- Users should wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Users should remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. If pesticide gets on skin, wash immediately with soap and water.
- Users should remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

#### First Aid

<b>If swallowed:</b>	<ul style="list-style-type: none"> <li>• Call a poison control center or doctor immediately for treatment advice.</li> <li>• Have person sip a glass of water if able to swallow.</li> <li>• Do not induce vomiting unless told to do so by a poison control center or doctor.</li> <li>• Do not give anything by mouth to an unconscious person.</li> </ul>
<b>If on skin or on clothing:</b>	<ul style="list-style-type: none"> <li>• Take off contaminated clothing.</li> <li>• Rinse skin immediately with plenty of water for 15 - 20 minutes.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
<b>If in eyes:</b>	<ul style="list-style-type: none"> <li>• Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li> <li>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>

Have the product container or label with you when calling a poison control center or doctor or going for treatment. For additional information in case of emergency, call toll free 1-877-800-5556.

### Environmental Hazards

This pesticide is toxic to fish and aquatic invertebrates. 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 may be hazardous to aquatic organisms in water adjacent to treated areas. Do not contaminate water when disposing of equipment wash waters or rinsate.

This chemical has properties and characteristics associated with chemicals detected in groundwater. The use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination. Application around a cistern or well may result in contamination of drinking water or groundwater.

### DIRECTIONS FOR USE

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

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

**Agricultural Use Requirements**

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170.

This standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard. Do not enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 48 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water is:

- Coveralls worn over short-sleeved shirt and short pants,
- Chemical-resistant footwear plus socks,
- Chemical-resistant gloves made of any waterproof material, and
- Protective eyewear.

**Non-Agricultural Use Requirements**

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries, or greenhouses.

**Reentry Statement:** Do not enter or allow people (or pets) to enter the treated area until sprays have dried.

**1. Product Description**

Designed for turfgrass applications, EH-1489 contains four (4) active ingredients:

1. Penoxsulam, is in the sulfonamide family and the acetolactate synthase (ALS) enzyme is inhibited in the weed causing the weed to slowly starve affected plants of these amino acids. Penoxsulam is absorbed via leaves, shoots and roots and begins to work immediately by translocating throughout the entire plant to achieve control.
2. Sulfentrazone is in the aryl triazolinone family and inhibits protoporphyrinogen oxidase (Protox), a pivotal enzyme in chlorophyll production. Without this key enzyme, a build-up of peroxide-like compounds occur, thus causing the plant cell membranes of weeds to rupture.
3. 2,4-D is an auxin-type herbicide. It is absorbed through the leaves and is translocated to the growing points of the plant, causing weed stems curling and twisting, leaf cupping and withering, and eventual plant death.
4. Dicamba is absorbed through the leaves and roots and has multiple modes of actions for hard-to-kill broadleaf weeds.

These combined herbicides provide limited residual activity. Weeds are controlled by affecting multiple sites within the broadleaf weeds. The symptoms of susceptible broadleaf weeds include leaf and stem curl or twisting and weed yellowing.

EH-1489 Herbicide offers these advantages:

- Excellent postemergent activity with proven performance for broadleaf weed control in turfgrass.
- High selectivity (turfgrass safety) in established warm-season turfgrass and cool-season turfgrass.
- The combination of these four (4) active ingredients provides effective weed control for common and troublesome weed species in turfgrass, such as dollarweed (pennywort), [any listed weed species] and [any listed weed species].

- Generally, the weed injury symptoms can be noticed within a few days of the application and weed death can occur within 14 to 28 days.

## 2. Spray Preparation

EH-1489 Herbicide is a water-based concentrate intended for dilution with water. In certain applications, liquid fertilizer may replace part of the water as a diluent.

### Mixing with Water:

Add one-half the required amount of water to the spray tank, then add EH-1489 Herbicide slowly with agitation, and complete filling the tank with water. Mix thoroughly and continue agitation while spraying. If this product is left in the tank for prolonged periods, re-agitate to assure uniformity of the spray mixture. Do not store of the spray mixture beyond 72 hours. Do not use tank additives that alter the pH of the spray solution below pH 5 or above pH 8. Buffer the spray solution to alter the pH range as appropriate.

### Adding Additional Adjuvants and Spray Additives:

Adjuvants (such as surfactants, spreaders, spreader-stickers, spray thickeners, foaming agents, activators, detergents, and drift reducing agents) combined with this product can damage the leaf tissue of turfgrass. If any discoloration or cosmetic effects are objectionable or would be unacceptable, then adjuvant(s) combined with EH-1489 Broadleaf Herbicide would not be recommended. Do not use adjuvants and spray additive tank-mix combinations, unless your experience indicates that the tank mixture will not result in turf injury.

## 3. Ground Equipment

Spray distribution: The accuracy and uniformity of the herbicide distribution is the sole responsibility of the applicator. Power sprayers fitted with a boom or spray wand/gun may be used for broadcast applications and spot treatments. For best spray distribution and coverage, select a spray volume and delivery system that will ensure accurate and uniform coverage. Boom sprayers equipped with appropriate flat fan nozzles, and screens are suitable for broadcast applications.

Use spray volumes of 3 to 175 gallons per acre (except when applying this product to St. Augustinegrass, use spray volumes of 40 to 175 gallons per acre) with spray pressures adjusted to 20 to 40 psi. Do not apply with high pressure equipment. Use higher spray volumes for dense weed populations.

- Calibration and proper application are essential when using this product.
- Avoid spray overlaps with spray equipment
- Over-application or rates above those on this labeling can cause turf injury.
- Hand-held technique: Spray wands fitted with flat fan nozzles should not be waved in a back-and-forth motion, or in a side-to-side motion, or in a swinging arm motion. Instead, the flat fan nozzle should be held stationary at the proper height. Side-to-side motion results in uneven coverage. To avoid excessive spray pattern overlaps, a spray colorant may be used.

Hand operated sprayers including backpack sprayers, compression sprayers, and knapsack sprayers are appropriate for small turfgrass areas.

This product may cause injury to susceptible/nontarget plants at the use site by contacting the foliage, stems, or roots. To prevent injury to susceptible crops and other desirable broadleaf plants including but not limited to cotton, legumes, tobacco, tomatoes, garden/vegetable crops, and ornamentals (flowers, trees, and shrubs) avoid contact with the spray solution, spray droplets, and spray mist (fine droplets). Do not apply when conditions are conducive to spray drift from the use site to untreated areas.

After using this product, clean sprayer with soap or detergent and water, or an approved spray tank cleaner and rinse thoroughly before applying other pesticides.



#### 4. Spray Drift Management

A variety of factors including weather conditions (e.g., wind direction, wind speed, temperature, relative humidity) and method of ground application can influence pesticide drift. The applicator must evaluate all factors and make appropriate adjustments when applying this product.

##### Droplet Size

When applying sprays that contain 2,4-D as the sole active ingredient, or when applying sprays that contain 2,4-D mixed with active ingredients that require a Coarse or coarser spray, apply only as a Coarse or coarser spray (ASAE standard 572) or a volume mean diameter of 385 microns or greater for spinning atomizer nozzles.

When applying sprays that contain 2,4-D mixed with other active ingredients that require a Medium or more fine spray, apply only as a Medium or coarser spray (ASAE standard 572) or a volume mean diameter of 300 microns or greater for spinning atomizer nozzles.

##### Wind Speed

Do not apply at wind speeds greater than 15 mph. Only apply this product if the wind direction favors on-target deposition and there are not sensitive areas (including, but not limited to, bodies of water, known habitat for nontarget species, nontarget crops) within 250 feet downwind. If applying a Medium spray, leave one swath unsprayed at the downwind edge of the treated field.

##### Temperature Inversions

If applying at wind speeds less than 3 mph, the applicator must determine if: a) conditions of temperature inversion exist, or b) stable atmospheric conditions exist at or below nozzle height. Do not make applications into areas of temperature inversions or stable atmospheric conditions.

##### Susceptible Plants

Do not apply under circumstances where spray drift may occur to food, forage, or other plantings that might be damaged or crops thereof rendered unfit for sale, use or consumption. Susceptible crops include, but are not limited to, cotton, okra, flowers, grapes (in growing stage), fruit trees (foliage), soybeans (vegetative stage), ornamentals, sunflowers, tomatoes, beans, and other vegetables, or tobacco. Small amounts of spray drift that might not be visible may injure susceptible broadleaf plants.

##### Other State and Local Requirements

Applicators must follow all state and local pesticide drift requirements regarding application of 2,4-D herbicides. Where states have more stringent regulations, they must be observed.

##### Equipment

All ground application equipment must be properly maintained and calibrated using appropriate carriers or surrogates. Additional requirements for ground boom application: Do not apply with a nozzle height greater than 4 feet above the turf canopy.

#### 5. Where To Use

This product provides broadleaf control in the following sites.

- **Turfgrass (ornamental) sites:**

- **Residential/domestic sites** are defined as areas associated with the household or home life including, but not limited to apartment complexes, condominiums, and patient care areas of nursing homes, mental institutions, hospitals, or convalescent homes.
- **Ornamental (turf) sites** include turfgrass established around residences, parks, streets, retail outlets, cemeteries, industrial and institutional buildings, recreation areas, fairgrounds, areas adjacent to athletic fields and paved areas.
- **Institutional sites** are defined as turf areas around properties or facilities providing a service to public or private organizations including, but not limited to hospitals, nursing homes, schools, museums, libraries, sport facilities, golf courses (fairways and roughs), and office buildings.

- **Non-cropland sites:** including farmyards, fencerows or fence lines, highway rights-of-way (principal, interstate, county, private, and unpaved roads): Roadsides, roadside ditches, road shoulders, road embankments, dividers, and medians; Industrial sites: Lumberyards, tank farms, fuel or equipment storage areas; Municipal, state, and federal lands: Airports and military installations; railroad rights-of-ways, railroad yards, railroad crossings and railroad bridge abutments; Utility rights-of-way: telephone, pipeline, electrical powerlines, and communication transmission lines.
- **Agricultural site:** Commercial sod production

**Prohibitions of Sites:**

- Do not apply to any body of water such as lakes, streams, rivers, ponds, reservoirs, or estuaries (salt water bays). Do not apply to any shorelines (noncropland sites adjacent to the edges of a body of water) for lakes, streams, rivers, ponds, reservoirs, or estuaries (salt water bays).
- Do not apply to wetlands (swamps, bogs, potholes, or marshes).
- Do not apply to agricultural irrigation water or on agricultural irrigation ditchbanks and canals.
- Do not apply to agricultural drainage water or on agricultural ditchbanks.

**Turfgrass tolerance:**

- The turfgrass tolerance to this product may vary and temporary turfgrass yellowing may occur on St. Augustinegrass and certain varieties (F1 hybrids) of hybrid bermudagrass. EH-1489 Herbicide may injure certain turfgrass species. Environmental conditions and certain spray tank additives (e.g., adjuvants, wetting agents, surfactants), liquid fertilizers, and tank mixtures containing other emulsifiable concentrates may reduce the selectivity on the turfgrass.

**Use Restrictions:**

- Do not apply this product to greens, tees, bentgrass, carpetgrass, dichondra, legumes, and lawns where desirable clovers are present.
- Do not broadcast apply this product when ambient temperatures are above 90°F, some injury may be expected with spot treatments when air temperatures exceed 90°F. For St. Augustinegrass see Table 1 for specific temperature restrictions.
- Do not collect grass clippings for use as mulch around plants.
- For ground application only; aerial applications are not permitted.
- Do not allow livestock to graze on any areas treated with this product.
- Do not broadcast apply to bare ground or paved surfaces.

**Irrigation:**

- Do not apply this product through any type of irrigation system.
- Do not apply this product immediately before rainfall or irrigation. Rainfast in 6 hours. Do not irrigate or water the turfgrass within 6 hours after application. If dry conditions exist, irrigate at least 8 hours before and 8 hours after application.

**State Restrictions:**

- **New York:** Only one application per year of this product is allowed. This product is not allowed to be sold, distributed or used in Nassau or Suffolk Counties.
- **California:** Make broadcast applications only between March 1 and September 1. If troublesome weeds appear during other times of the year, a spot application can be made. While irrigation is necessary and important for plant growth, apply irrigation water efficiently so that no more than 25% of the net irrigation requirement is applied for any irrigation event. Apply efficient irrigations for six months following application of sulfentrazone containing products. Do not apply product to bare ground.
- **Arizona:** Do not use this product on sod farms in Arizona.
- Use of this product in certain portions of California, Oregon and Washington is subject to the January 22, 2004 Order for injunctive relief in *Washington Toxics Coalition. et al. v. EPA*, C01-C132C, (W.D. WA). For further information, please refer to EPA Web Site: <http://www.epa.gov/espp>.

## 6. Application Schedules

Early postemergent applications of EH-1489 Herbicide are suitable for annual, biennial, and perennial weeds. Apply this product to broadleaf weeds that are young and actively growing for the best results.

EH-1489 Herbicide may be applied as a single broadcast application or as a follow-up broadcast application in the spring, summer, or fall. Spring and fall treatments under adequate soil moisture conditions are preferred to the summer treatments. Generally, summer broadcast applications to older, drought stressed weeds are less effective.

Follow-up applications or spot treatments with a minimum 30 day interval may be needed for more mature weeds, for dense infestations, and for adverse environmental conditions.

Spot treatments during the summer may be appropriate for sparse infestations, or as a follow-up treatment, or any time broadleaf weeds are susceptible.

Extremes in environmental conditions e.g. temperature, moisture, soil conditions, and cultural practices may affect the activity of EH-1489 Herbicide. Under warm moist conditions, herbicide symptoms may be accelerated. While under very dry conditions, the expression of herbicide symptoms is delayed, and weeds hardened off by drought are less susceptible to EH-1489 Herbicide.

### CULTURAL TIPS FOR IMPROVED CONTROL:

#### Mowing:

- Delay mowing 2 days before and until 2 days after the application of this product.

#### Reseeding interval:

- Treated areas may be reseeded, sprigged, or sodded 3 to 4 weeks after application.

#### For newly seeded areas:

It is suggested applications of this product to grass seedlings should be delayed until after the third mowing.

#### For newly sodded, sprigged, or plugged areas:

The application of EH-1489 Herbicide to newly sodded, sprigged, or plugged grasses should be delayed until 3 to 4 weeks after the sodding, sprigging, or plugging operations.

#### For dormant turf:

This product may be applied to dormant bermudagrass, dormant zoysiagrass, and dormant bahiagrass.

## 7. How Much To Use - Use Rates and Spray Volumes

Generally, the lower application rates within the specified range will provide satisfactory control of sensitive weed species. The higher application rates within the specified range will be required for dense infestations of perennial weeds, for adverse/extreme environmental conditions, or for weeds beyond the appropriate growth stages.

For ornamental turfgrass and sod farms, do not apply more than 2 broadcast treatments per season. A minimum of 30 days is required between applications. Maximum rate per application is 6 pints/A [0.26 lb 2,4-D ae/A, 0.045 lb penoxsulam/A, 0.11 lb dicamba ae/A, and 0.045 lb sulfentrazone/A]. Maximum rate per season is 12 pints/A [0.52 lb 2,4-D ae/A, 0.09 lb penoxsulam/A, 0.22 lb dicamba ae/A, and 0.09 lb sulfentrazone/A]. Do not exceed the maximum seasonal rate of 12 pints per acre per season, excluding spot treatments.

Use rates and spray volumes of EH-1489 Herbicide as broadcast treatments for use on turfgrass are presented in Table 1.

Table 1. Rates for St. Augustine on Sod Farms and Ornamental Lawns and Turfgrass.		
Species	Amount of Product	Spray Volume
<b>St. Augustinegrass (Common and Improved varieties, including 'Floritam' and 'Bitterblue' varieties of St. Augustinegrass)</b>		
<b>SENSITIVE OR SUSCEPTIBLE WEEDS</b>	<b>3.5 to 4.0 pints/acre</b> (1.3 to 1.5 fl.oz./1000 sq.ft.)  During higher temperatures, use lower rates within this range	40 to 175 gallons/acre (1 to 4 gallons per 1000 sq.ft.)
<b>HARD-TO-CONTROL WEEDS (such as chamber bitter [other listed weeds])</b>	<b>4.0 to 5.0 pints/acre</b> (1.5 to 1.8 fl.oz./1000 sq.ft.)  Avoid application of this rate during higher temperatures	40 to 175 gallons/acre (1 to 4 gallons per 1000 sq.ft.)
<ul style="list-style-type: none"> <li>• For St. Augustine only, do not broadcast apply this product when ambient temperatures are below 50°F or above 85°F; some injury may be expected with spot treatments when air temperatures exceed 85°F.</li> <li>• Avoid fall or winter applications unless turf stunting can be tolerated</li> <li>• Do not make broadcast or spot applications of this product to St. Augustinegrass during spring green-up, which is the transition period between dormancy and active growth.</li> <li>• Do not make broadcast or spot applications of this product to St. Augustinegrass during the fall to winter transition or if temperatures are expected to drop below 40°F within ten (10) days of application</li> <li>• If dry conditions exist, irrigate at least 8 hours before and 8 hours after application.</li> <li>• Avoid mowing 2 days before and until 2 days after the application of this product.</li> <li>• Over application of this product can cause turf injury (discoloration, turf thinning, stunting and even turf death).</li> <li>• Do not use tank mixture combinations, unless your experience indicates that the tank mixture will not result in turf injury.</li> <li>• To avoid turf injury, use only on turfgrass that is reasonably free of stress from diseases, insects, excess heat or cold, drought or excess rainfall/irrigation, shaded areas, low soil pH, nematodes, improper mowing or improper applications of fertilizer and pesticides. Injury can occur if this product is applied under any of these or other stress conditions. Under any of these stress conditions, any turf damage caused by the use of this product is beyond the control of PBI/Gordon Corporation and all risk is assumed by the buyer and/or user.</li> </ul>		
NOTE: If any discoloration is objectionable or any level of phytotoxicity would be unacceptable, then do not add surfactants and other adjuvant(s) combined with EH-1489 Herbicide.		

Table 2. Rates for Warm-Season Turfgrasses (except St Augustine) on Sod Farms and Ornamental Lawns and Turfgrass.		
Species	Amount of Product	Spray Volume
<b>Warm-season Turf</b>		
Hybrid bermudagrass Bahia grass Zoysiagrass Buffalograss Centipedegrass Seashore paspalum Kikuyugrass	<b>3.5 to 4.5 Pints/Acre</b> (1.3 to 1.65 fl.oz. 1000 sq.ft.)	3 to 175 gallons/acre (0.1 to 4 gallons per 1000 sq.ft.)
Common bermudagrass	<b>4.0 to 5.0 Pints/Acre</b> (1.5 to 1.8 fl.oz./1000 sq.ft.)	3 to 175 gallons/acre (0.1 to 5 gallons per 1000 sq.ft.)
NOTE: If any discoloration is objectionable or any level of phytotoxicity would be unacceptable, then do not add surfactants and other adjuvant(s) combined with EH-1489 Herbicide.		

Table 3. Rates for Cool-Season Turfgrasses on Sod Farms and Ornamental Lawns and Turfgrass.		
Species	Amount of Product	Spray Volume
<b>Cool-season Turf</b>		
<b>Kentucky bluegrass, Annual bluegrass</b>	<b>4.0 to 6.0 Pints/Acre</b> (1.5 to 2.2 fl.oz./1000 sq.ft.)	3 to 175 gallons/acre (0.1 to 4 gallons per 1000 sq.ft.)
<b>Perennial ryegrass, Annual ryegrass, Tall fescue, Red or fine leaf fescues</b>	<b>2.7 Pints/Acre</b> (1.0 fl.oz./1000 sq.ft.)	3 to 175 gallons/acre (0.1 to 4 gallons per 1000 sq.ft.)
NOTE: If any discoloration is objectionable or any level of phytotoxicity would be unacceptable, then do not add surfactants and other adjuvant(s) combined with EH-1489 Herbicide.		
If treating Kentucky bluegrass or annual bluegrass in a mixed stand with perennial ryegrass, annual ryegrass, tall fescue, or red/fine leaf fescues, use 2.7 pints/acre (0.02 lb penoxsulam/acre) unless some injury to the sensitive species can be tolerated.		

**SPOT TREATMENTS WITH HAND OPERATED SPRAYERS (INCLUDING BACKPACK SPRAYERS, COMPRESSION SPRAYERS, AND KNAPSACK SPRAYERS):**

- Calibration and proper application are essential when using this product.
- Over application or rates above those on this labeling including excessive overlaps of this product can cause turf injury.
- Uniform applications are essential when using this product.
- Hand-held techniques: Spray wands fitted with flat fan nozzles should not be waved in a back-and-forth motion, or in a side-to-side motion, or in a swinging arm motion. Instead, the flat fan nozzle should be held stationary at the proper height. Side-to-side motions result in uneven coverage. To avoid excessive spray pattern overlaps, a spray colorant may be used.
- **For St. Augustinegrass, mix** 1.3 to 1.5 fl. oz. of this product per one (1.0) gallon of water for treatment of approximately 1,000 sq.ft of turfgrass. See Table 1 for specific directions.
- **For St. Augustinegrass "hard-to-control weeds" listed, mix** 1.5 to 1.8 fl.oz. of this product per one (1.0) gallon of water for treatment of approximately 1,000 sq.ft of turfgrass. Avoid application of this rate during higher temperatures. See Table 1 for specific directions.
- **For other warm-season turfgrass (except St. Augustinegrass), mix** 1.3 to 1.65 fl.oz. of this product per one (1.0) gallon of water for treatment of approximately 1,000 sq.ft of turfgrass. Apply any time the emerged broadleaf weeds are susceptible.
- **For Kentucky bluegrass and annual bluegrass, mix** 1.5 to 2.2 fl.oz. of this product per one (1.0) gallon of water for treatment of approximately 1,000 sq.ft of turfgrass. Apply any time the emerged broadleaf weeds are susceptible.
- **For ryegrasses and fescues, mix** 1.0 fl.oz. of this product per one (1.0) gallon of water for treatment of approximately 1,000 sq.ft of turfgrass. Apply any time the emerged broadleaf weeds are susceptible.
- Apply when emerged broadleaf weeds are actively growing.
- Do not apply more than 2 spot treatments per season. A minimum of 30 days is required between applications.
- Do not use tank mixture combinations, unless your experience indicates that the tank mixture is effective and will not result in turf injury. No label dosage rate should be exceeded. Follow the labeling of each companion product for precautionary statements, directions for use, dosage rates, and application schedules. Tank mixture recommendations are for use only in states where the companion products and application site are registered.

**BROADLEAF WEEDS CONTROLLED:**

This product will control or suppress the following broadleaf. Apply when the emerged broadleaf weeds are susceptible.

<b>BROADLEAF WEEDS</b>			
Aster, white heath & white prairie	Dogfennel	Knotweed	Redweed
Bedstraw	Dollarweed (*pennywort)	Lambsquarters	Red sorrel (*sheep sorrel)
Beggarweed, creeping	English daisy	Lawn burweed	Shepherdspurse
Bindweed	False dandelion (*spotted catsear & common	Lespedeza, common	Spurge
Black medic	catsear)	Mallow, common	Thistle
Broadleaf plantain	Field bindweed	Matchweed	Veronica (*corn speedwell)
Buckhorn plantain	(*morningglory & creeping jenny)	Mouseear chickweed	Virginia buttonweed**
Bull thistle	Field oxeye-daisy (*creeping oxeye)	Nutsedge (yellow) ***	White clover (*Dutch clover, honeysuckle clover, white trefoil, & purplewort)
Burclover	Filaree, whitestem & redstem	Old world diamond flower	Wild carrot
Burdock, common	Florida betony (rattlesnake weed)	Oxalis (*yellow woodsorrel & creeping woodsorrel)	Wild garlic
Buttercup, creeping	Ground ivy	Parsley-piert	Wild geranium
Carpetweed	Groundsel	Pennsylvania smartweed	Wild lettuce
Chamberbitter**	Hawkweed	Pepperweed	Wild mustard
Chickweed, common	Healall	Pigweed	Wild onion
Chicory	Henbit	Pineappleweed	Wild strawberry
Cinquefoil	Innocence (Blue-eyed Mary)	Plantain	Yarrow
Clover		Poison ivy	Yellow rocket
Compassplant		Poison oak	and many more broadleaf weeds
Curly dock		Puncturevine	
Dandelion		Purple cudweed	
Dayflower		Purslane	
Deadnettle		Ragweed	
Dock			

\*Synonyms \*\*Hard-to-control and may require higher use rates within the rate range listed \*\*\* Suppression only when nutsedge is young and actively growing.

### STORAGE AND DISPOSAL

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

**PESTICIDE STORAGE:** Keep from freezing.

**PESTICIDE 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.

**[For Plastic Containers – Nonrefillable with capacities equal to or less than 5 gallons:]**

**CONTAINER HANDLING:** Nonrefillable container. Do not reuse or refill this container. Triple rinse [or pressure rinse] container (or equivalent) promptly after emptying. Then offer for recycling, if available, or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times.

[OR

Pressure rinse as follows: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 PSI for at least 30 seconds. Drain for 10

seconds after the flow begins to drip.]

**[For Plastic Containers – Nonrefillable with capacities greater than 5 gallons:]**

**CONTAINER HANDLING:** Nonrefillable container. Do not reuse or refill this container. Triple rinse [or pressure rinse] container (or equivalent) promptly after emptying. Then offer for recycling, if available, or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times.

[OR

Pressure rinse as follows: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.]

**[For Refillable Containers:]**

**CONTAINER HANDLING:** Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose.

Container cleaning: Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller.

To clean the container before final disposal, empty the remaining contents from this container into application equipment or a mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times.

**LIMITED WARRANTY AND DISCLAIMER**

FOR USE ONLY AS DIRECTED. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, THE MANUFACTURER NEITHER MAKES NOR INTENDS ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, WHICH ARE HEREBY EXPRESSLY DISCLAIMED. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, IN NO CASE SHALL THE MANUFACTURER BE LIABLE FOR INCIDENTAL, CONSEQUENTIAL, OR SPECIAL DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT. If these terms are not acceptable, return this product unopened immediately to the point of purchase, and the purchase price will be refunded in full. The terms of this LIMITED WARRANTY AND DISCLAIMER cannot be varied by any written or verbal statements or agreements at the point of sale or elsewhere.

**APPENDIX**

**1. Statements which may appear on different label components depending on packaging configuration.**

- See next panel for additional Precautionary Statements and First Aid

- Net Contents: \_\_\_\_\_
- EPA Est. No. \_\_\_\_\_

**2. Advertising claims appropriate for the bag size:**

- Rainfast in [as little as] 6 hours
- Rainfast [Rainproof] in 6 hours
- Visible results in just a few days
- Visible results in days
- [Weed] control in as little as two [2] weeks
- **IMPORTANT: KEEP FROM FREEZING**
- Consistently control on tough weeds like dollarweed, and [various other listed weeds].
- [product name] provides rapid and effective weed control including dollarweed, white clover, dandelion and spurge in turfgrass.
- From the makers of Trimec® herbicides.
- TRIMEC® is a registered trademark of PBI/Gordon Corporation
- Reseed in 3 to 4 weeks
- High selectivity (turfgrass safety) in established St. Augustinegrass
- Turfgrasses include: St. Augustinegrass common bermudagrass, hybrid bermudagrass, bahiagrass, zoysiagrass, buffalograss, centipedegrass, seashore paspalum, kikuyugrass [and most cool-season turfgrasses.]
- Sites include home lawns, golf courses, sod farms, roadsides and many other listed turf sites.
- For information call XXX-XXX-XXXX [contact [www.xxx-xxxx.com](http://www.xxx-xxxx.com)]
- See weedalert.com
- Advanced broadleaf weed control [chemistry]
- CAUTION signal word
- Low-odor formula [formulation]
- ® Checkered Flag/Label Design is a registered trademark of PBI/Gordon Corporation.
- SpeedZone® and TRIMEC® are registered trademarks of PBI/Gordon Corporation.
- [Various photographs of weed listed on this label]
- Water Based
- Post-emergence broadleaf weed control – High turfgrass safety in established St. Augustinegrass (including 'Floritam') and other southern turfgrass species when used as directed.
- For use on: St. Augustinegrass (including 'Floritam'), bermudagrass, zoysiagrass, centipedegrass, buffalograss and seashore paspalum
- Will not harm 'Floritam' St. Augustinegrass when used as directed
- Controls some of the toughest weeds in warm-season turfgrass
- Provides rapid and effective weed control
- 4 active ingredients

**DOCUMENT CONTROL INFORMATION**

1. Unique Label Identifier: 002217-00947.20120228.notif-proposed-highlighted.doc
2. Reason for Issue: ABN, ad claims

