UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY
AND POLLUTION PREVENTION

December 9, 2019

Eric Smith
Director, Regulatory Affairs
PBI/Gordon Corporation
PO Box 860350
Shawnee, KS 66286

Subject: Registration Review Label Mitigation for Sulfentrazone and Quinclorac
Product Name: EH-1427 Herbicide
EPA Registration Number: 2217-886
Application Dates: January 31, 2019; May 10, 2019
Decision Numbers: 556023; 556024

Dear Mr. Smith:

The Agency, in accordance with the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), as amended, has completed reviewing all the information submitted with your application to support the Registration Review of the above referenced product in connection with the Sulfentrazone and Quinclorac Interim Decisions, and has concluded that your submission is acceptable. The label referred to above, submitted in connection with registration under FIFRA, as amended, is acceptable.

Should you wish to add/retain a reference to the company's website on your label, then please be aware that the website becomes labeling under the Federal Insecticide Fungicide and Rodenticide Act and is subject to review by the Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 CFR 156.10(a)(5) list examples of statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product's label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the Agency find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA approved registration, the website will be referred to the EPA's Office of Enforcement and Compliance.

A copy of your label stamped "Accepted" is enclosed. Products shipped after 12 months from the date of this amendment must bear the new revised label. Your release for shipment of the product bearing the amended label constitutes acceptance of these conditions. If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6.

If you have any questions about this letter, please contact Jaclyn Pyne by phone at 703-347-0445, or via email at pyne.jaclyn@epa.gov.

Sincerely,

Linda Arrington, Branch Chief
Risk Management and Implementation Branch 4
Pesticide Re-Evaluation Division
Office of Pesticide Programs

Enclosure

2,4-D QUINCLORAC DICAMBA	**GROUP**	**4**	**HERBICIDE**
SULFENTRAZONE	**GROUP**	**14**	**HERBICIDE**

EH-1427 HERBICIDE

EPA Reg. No. 2217-886

ACTIVE INGREDIENT:	
2,4-D, dimethylamine salt	12.02%
Quinclorac	5.69%
Dicamba, dimethylamine salt	1.38%
Sulfentrazone	0.69%
INERT INGREDIENTS:	80.22%
TOTAL	100.00%

THIS PRODUCT CONTAINS:
0.88 lb 2,4-dichlorophenoxyacetic acid equivalent per gallon or 9.98%
0.50 lb 3,7-dichloro-8-quinolinecarboxylic acid per gallon or 5.69%
0.10 lb 3,6-dichloro-o-anisic acid equivalent per gallon or 1.15%
0.06 lb N-[2,4-dichloro-5-[4-(difluoromethyl)-4,5-dihydro-3-methyl-5-oxo-1H-1,2,4-triazol-1-yl] phenyl]methanesulfonamide per gallon or 0.69%
Isomer Specific By AOAC Methods.
U.S. Patent 6,849,579

KEEP OUT OF REACH OF CHILDREN

CAUTION

Si Usted no entiende la etiqueta, busque a alguien para que se la explique a Usted en detalle. (If you do not understand the label, find some one to explain it to you in detail.)

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

See attached booklet [inside pages] for complete Precautionary Statements and Directions for Use, including First Aid and Storage and Disposal.

Net Contents: ____
EPA Est. No. ____

Company Name and Address:
PBI/Gordon Corporation
P.O. Box 860350
Shawnee, Kansas 66286

pbi/gordon corporation
Employee-Owned

PRECAUTIONARY STATEMENTS

Hazards to Humans and Domestic Animals

CAUTION: Causes moderate eye injury. Avoid contact with eyes or clothing. Harmful if swallowed.

Personal Protective Equipment (PPE)

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

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

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.

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	
If swallowed:	• Call a poison control center or doctor immediately for treatment advice. • Have person sip a glass of water if able to swallow. • Do not induce vomiting unless told to do so by a poison control center or doctor. • Do not give anything by mouth to an unconscious person.
If in eyes:	• Hold eye open and rinse slowly and gently with water for 15 - 20 minutes. • Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. • Call a poison control center or doctor for treatment advice.
If on skin or clothing:	• Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15 - 20 minutes. • Call a poison control center or doctor for treatment advice.
Have the product container or label with you when calling a poison control center or doctor or going for treatment. You may also contact 1-888-800-5556 for emergency medical treatment information.	

Environmental Hazards

This pesticide may be 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 plants, and 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. 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 water-proof material,
- chemical-resistant headgear for overhead exposure,
- 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.

PRODUCT DESCRIPTION:

4-in-1 Herbicide

EH-1427 Herbicide is a patented product that contains four (4) active ingredients including quinclorac and sulfentrazone that broaden the spectrum of weed control. EH-1427 Herbicide is a versatile herbicide that will control many troublesome grassy and broadleaf weeds in established turfgrass when used as directed.

4-in-1 is better than 3-in-1

- Versatile post-emergent herbicide for turfgrass to control both grassy and broadleaf weeds.
- Wide window of application for broadleaf weeds beginning at emergence and active weed growth.
- Quinclorac is absorbed by foliage and roots and translocated throughout the plant where it uses multiple modes of action to control both grassy and broadleaf weeds. One mode of action involves an auxin-type herbicidal activity which disrupts plant growth in broadleaf weeds, while another mode of action works as an enzyme/cell wall disruptor to control crabgrass and other grassy weeds.
- The effects on grassy weeds include stunting, yellowing, gradual reddening and followed by necrosis. Symptoms typically appear 7 to 14 days after application.
- The symptoms of susceptible broadleaf weeds resemble those of 2,4-D and include leaf and stem curl or twisting, and yellowing.

- Sulfentrazone provides post emergent weed control for common weed species in turfgrass such as spurge. Foliar contact of sulfentrazone on emerged, susceptible weeds results in rapid dessication and necrosis of the plant tissue.

USE RESTRICTIONS:

- The maximum single application rate for EH-1427 Herbicide is 9 pints of product per acre per application, the equivalent of 0.99 lb 2,4-D ae, 0.56 lb quinclorac ai, 0.11 lb dicamba ae, and 0.07 lb sulfentrazone ai per acre per application.
- The maximum annual application rate for EH-1427 Herbicide is 18 pints of product per acre per year the equivalent of 1.98 lb 2,4-D ae, 1.12 lb quinclorac ai, 0.23 lb dicamba ae, and 0.14 lb sulfentrazone ai per acre per year.
- The maximum number of broadcast applications for commercial sod farms is limited to 2 per year with a minimum of 21 days between applications.
- The maximum number of broadcast applications for ornamental turf and non-cropland areas is limited to 2 per year with a minimum of 30 days between applications.

WEED RESISTANCE MANAGEMENT

For resistance management, this product contains Group 4 and Group 14 herbicides. Any weed population may contain or develop plants naturally resistant to this product and other Group 4 or Group 14 herbicides. The resistant biotypes may dominate the weed population if these herbicides are used repeatedly in the same area. Appropriate resistance management strategies should be followed.

To delay herbicide resistance take one or more of the following steps:

- Rotate the use of this product or other Group 4 or Group 14 herbicides within a growing season sequence or among growing seasons with different herbicide groups that control the same weeds.
- Use tank mixtures with herbicides from a different group if such use is permitted; where information on resistance in target weed species is available, use the less resistance-prone partner at a rate that will control the target weed(s) equally as well as the more resistance-prone partner. Consult your local extension service or pest control advisor if you are unsure as to which active ingredient is currently less prone to resistance.
- Adopt an integrated weed-management program for herbicide use that includes scouting and uses historical information related to herbicide use, and that considers mechanical control methods, cultural (e.g., timing to favor the turf and not the weeds), biological (weed-competitive varieties) and other management practices.
- Scout area prior to application to identify the weed species present and their growth stage to determine if the intended application will be effective.
- Scout after herbicide application to monitor weed populations for early signs of resistance development. Indicators of possible herbicide resistance include: 1) failure to control a weed species normally controlled by the herbicide at the dose applied, especially if control is achieved on adjacent weeds; 2) a spreading patch of non-controlled plants of a particular weed species; 3) surviving plants mixed with controlled individuals of the same species. If resistance is suspected, prevent weed seed production in the affected area by an alternative herbicide from a different group or by a mechanical method. Prevent movement of resistant weed seeds to other areas by cleaning equipment.
- If a weed pest population continues to progress after treatment with this product, discontinue use of this product, and switch to another management strategy or herbicide with a different mode of action, if available.
- Contact your local extension specialist or pest control advisor for additional pesticide resistance-management and/or integrated weed-management recommendations for specific types of turf and weed biotypes.
- For further information or to report suspected resistance, call 877-800-5556.

WHERE TO USE:

This product provides broadleaf control in warm-season and cool-season turfgrass in five (5) use sites. See tables 2 and 3 below for turf grass species that can be treated with EH-1427 Herbicide.

- **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 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** include Highway rights-of-way (principal, interstate, county, private, and unpaved roads); roadsides, roadside ditches, road shoulders, road embankments, dividers and medians; municipal, state and federal lands; airports and military installations.
- **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 (non-cropland 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.
- Do not apply product to bare ground.
- **DO NOT** apply EH-1427 Herbicide to the following:
  Bahiagrass
  Bentgrass, (wild and native varieties)
  Carpetgrass
  Centipedegrass
  Dichondra
  St. Augustinegrass
  Greens, tees and collars at golf courses
  Lawns with desirable clovers or legumes
  Ornamentals (flowers, trees, groundcovers, landscape beds and shrubs)

Turfgrass tolerance:

- Turfgrass tolerance to this product may vary, and temporary turfgrass yellowing may occur on hybrid bermudagrass [improved varieties of zoysiagrass, buffalograss,] and the fine fescues.
- Tolerant turf species listed on this label may exhibit temporary turf injury. The best tolerance occurs under optimal conditions for the turfgrass.
- Adverse environmental conditions may reduce the selectivity on the turfgrass. Injury may occur under marginal conditions (e.g. low temperatures and drought stress) or under extreme conditions (e.g. high temperatures and high humidity). 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. 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.
- Certain spray tank additives (adjuvants, wetting agents, surfactants), liquid fertilizers, and tank mixtures containing emulsifiable concentrates may reduce the selectivity on the turfgrass. Use adjuvants and spray additives or tank-mix combinations only when your experience indicates that the tank mixture will not result in objectionable turf injury. [optional text: See “SPRAY PREPARATION: Additions of adjuvants (and/or Tank Mixtures) to improve Grassy Weed Control:” section of this label. End of optional text]
- Do not broadcast apply this product when temperatures are above 90°F; some injury can also be expected with spot treatments when air temperatures exceed 90°F.

Cultural Tips

For newly seeded areas:
Delay application of this product to grass seedlings until after the second or third mowing, or 28 days after emergence.

For newly sodded, sprigged, or plugged areas:
The application of this product to newly sodded, sprigged, or plugged grasses should be delayed until 3 to 4 weeks after the sodding, sprigging, or plugging operations.

Seeding:
Turf species listed on this label can be seeded into the treated areas at four (4) weeks after the application of this product.

Irrigation:
Do not apply this product immediately before rainfall or irrigation. For best results, do not irrigate or water the turfgrass within 24 hours after application. If dry conditions exist, a scheduled irrigation or watering 24 hours before and 24 hours after application is recommended. If rainfall does not occur in 2 to 7 days after application, irrigation of at least one-half inch is recommended.

Mowing:
Delay mowing 2 days before and until 2 days after the application of this product. Additional stress from low mowing heights may increase the possibility of turf injury. Clippings from the first three mowings should be left on the treated area. Do not use these clippings as mulch or compost around flowers, ornamentals, trees, or in vegetable gardens.

Spray Preparation
Mixing with Water:
Add one-half the required amount of water to the spray tank, then add EH-1427 Herbicide slowly with agitation, and complete filling the tank with water. Mix thoroughly and continue agitation while spraying.

When this product is left standing for extended periods of time, re-agitate to assure uniformity of the spray mixture.

Mixing with Liquid fertilizers:
In certain applications, liquid fertilizer may replace part of the water as a diluent.

ALWAYS PREMIX EH-1427 Herbicide WITH WATER BEFORE ADDING TO FLUID FERTILIZERS. For liquid nitrogen solutions such as U.A.N. or urea solutions. use a premix of 1 part of this product with 4 parts of water or use a premix with a 1:4 ratio of product to water. For other fluid fertilizers such as suspensions, use a premix of 1 part of this product with 50 to 60 parts of water.

Use suitable sources and rates of fertilizer based upon local recommendations. Refer to the mixing directions on the labels of the liquid fertilizers. Always perform a jar test for compatibility before large scale mixing.

The jar test can be conducted by mixing all components in a small container in proportionate quantities. If the mixture separates after standing and can be mixed readily by shaking, then the mixture can be used and applied with spray equipment providing continuous agitation. If large flakes, sludge, gels or other precipitates form, or if a separate oily layer or oil globules appear, then the herbicide and the liquid fertilizer should not be prepared as a tank mixture.

[Optional additional text:
Additions of Adjuvants (and/or Tank Mixtures) to Improve Grassy Weed Control:
Methylated seed oil is a suitable adjuvant for post-emergent applications and may cause slight yellowing to desirable turf. The use of nitrogen fertilizer or chelated iron (such as FeRROMEC® Plus MICROS) can reduce the slight yellowing that may occur on some turfgrass species. Methylated seed oil used must meet the following criteria:

- Be non-phytotoxic
- Contain only EPA-approved ingredients
- Provide good mixing quality in the jar test, and
- Be used only when your experience indicates that this tank mixture will not result in objectionable turfgrass injury.

Do not include additives when tank-mixing with oil-based products or EC (Emulsifiable Concentrate) products as this may cause phytotoxicity (yellowing) of desirable turfgrass. Other additives or adjuvants may be used, however, certain additives may reduce the selectivity on the turfgrass. Under some environmental conditions some of these products may cause phytotoxicity (yellowing) of desirable turfgrass. Use these adjuvants, spray additives or tank-mix combinations, only when your experience indicates that the tank mixture will not result in objectionable turf injury.**]**

Spray Equipment
GROUND EQUIPMENT:
Spray equipment: Power sprayers fitted with a boom or spray wand/gun may be used for broadcast applications and spot treatments. Boom sprayers equipped with appropriate flat fan nozzles, tips, and screens are suitable for broadcast applications. For best spray distribution and coverage, select a spray volume and delivery system that will ensure accurate and uniform coverage.

Hand-operated sprayers including backpack sprayers and compression sprayers are appropriate for small turfgrass areas. Calibration and proper application are essential when using this product.

Cleaning spray equipment: Clean sprayer before and after using this product. Use soap, household ammonia, detergent and water, or an approved spray tank cleaner and rinse thoroughly. Cross-contamination may cause physical incompatibility (mixing problems) or result in turf injury.

Spray distribution:
- The accuracy and uniformity of the herbicide distribution is the sole responsibility of the applicator.
- Uniform applications are essential when using this product. Over-application, excessive overlaps, or rates above those specified on this label can cause turf injury.
- Avoid spray overlaps with hand-held equipment: Wands fitted with flat fan nozzle tips may be used with the appropriate technique. 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 nozzle should be held stationary at the proper height. Side-to-side motion results in uneven coverage. To avoid excessive spray pattern overlaps, use a spray colorant.

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

Aerial application: Do not apply as an aerial application.

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

Droplet Size
Select nozzles and application pressure that deliver medium to coarse or larger spray droplets as indicated in the nozzle manufacturer's recommendations and in accordance with ASABE* Standard S-572.

Select coarse to very coarse droplet size when sulfentrazone is used as a preemergent/preplant application.

Select medium to very coarse droplet size when sulfentrazone is used postemergence with a contact burndown herbicide.

Do not apply as spray droplets smaller than medium to coarse (defined by the ASABE* standard).

*ASABE – American Society for Agricultural and Biological Engineers.

Wind Speed
Applicators may spray only when wind speed is between 3 and 10 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.

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.

This product may cause injury to susceptible/non-target 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).

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 applications: Do not release spray at a height higher than 30 inches above the ground.

Spray Volume
Ground applicators must use a minimum finished spray volume of 10 gallons per acre. When sulfentrazone is tank mixed with a contact burndown herbicide, ground applicators must use a minimum spray volume of 15 gallons per acre.

Post Emergent Control of Grassy Weeds
EH-1427 Herbicide can provide post emergent control and suppression of the grassy weeds listed in Table 1. Apply to weeds during the growth stages as shown in Table 1. Applications under adequate soil moisture conditions are preferred. Early summer treatments are generally more effective. Applications in the summer (approximately July 15 to August 15) to older, drought stressed grassy weeds are less effective. Late summer applications (after August 15) to mature crabgrass can be very effective. Weed control is affected by the spray volume, timing and the weed growth stages (see Tables 1, 2, and 3).

TABLE 1. LEAF STAGES OF GRASSY WEEDS AND YELLOW NUTSEDGE FOR OPTIMUM CONTROL						
Weed species	**1 to 3 leaf**	**4 to 5 leaf (1 tiller)**	**6 leaf (2 tillers)**	**7 leaf (3 tillers)**	**8 leaf (4 tillers)**	**Mature (late season)**

Barnyardgrass Crabgrass, (large and smooth) Foxtail, (green, yellow, and giant) Signalgrass, (broadleaf)	X	X	X	Footnote 1	Footnote 1 (reduced control)	X
Nutsedge, (yellow)	X	Footnote 1	Footnote 1	Footnote 1	Footnote 1 (reduced control)	X
[1] Higher rates or a second application on ornamental turfgrass may be required (See Table 2: Hard-to-control rate). Early summer treatments are generally more effective. Applications in the summer (approximately July 15 to August 15) to older, drought stressed grassy weeds are less effective. Late summer applications (after August 15) to mature crabgrass can be very effective.						

Post Emergent Control of Broadleaf Weeds
Apply this product to broadleaf weeds that are young and actively growing for the best results. 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. Fall applications provide improved control for emerged winter annuals and perennials such as henbit, chickweed, clover and ground ivy.

Applications
Spot treatments during the spring and summer are suitable for sparse infestations or as a follow-up treatment to a broadcast application on an "as-needed" basis. Second or follow-up applications as either broadcast or spot treatments should be made after the initial application on ornamental turfgrass and are recommended for more mature weeds, for dense infestations and for adverse environmental conditions.

Other situations which may need two broadcast or follow-up treatments include the following:
- Under certain conditions, applications of this product at the 3 to 4 tiller stage of the annual grasses may not provide complete control.
- All weed grasses do not germinate at the same. The period of germination for crabgrass and annual grasses can extend into the summer after the initial application of this product and results may be poor and erratic.
- Dense infestations of weeds may prevent thorough spray coverage of the target weeds and regrowth occurs.
- Biotypes of large and smooth crabgrass in California have shown varied response to quinclorac. If control failure occurs following a sequential application, do not reapply this product. Change to a herbicide with a different mode of action such as Gordon's Trimec Plus Post-Emergent Grass & Broadleaf Herbicide [or brandname X product].

Extremes in environmental conditions, ie. temperature and moisture, soil conditions, and cultural practices may affect the activity of this product. Under warm moist conditions, herbicide symptoms may be accelerated. Under dry conditions, the expression of herbicide symptoms is generally delayed, and weeds hardened off by drought may be less susceptible to this product.

If objectionable turf injury occurs with the first application then avoid making the second application of this product until the turfgrass recovery is complete.

Do not broadcast apply this product when temperatures are above 90°F; temporary turfgrass discoloration can also be expected with spot treatments when air temperatures exceed 90°F.

State Restrictions:
- **Arizona:** Do not use this product on sod farms in Arizona.
- **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 125%

of the net irrigation requirement is applied for any irrigation event. Apply efficient irrigations for six months following application of sulfentrazone containing products.

- **New York:** Not for sale, distribution or use in New York State.

TABLE 2. BROADCAST TREATMENTS FOR COOL-SEASON TURFGRASS		
Application Site	**Use Rates for Normal Applications**	**Use Rates for Hard-to-control weeds****
Kentucky Bluegrass, Perennial ryegrass, Fescues*, Annual Bluegrass *(Poa annua),* Rough Bluegrass *(Poa trivialis),* Annual Ryegrass	7 to 8 pints/A (2.6 to 3.0 fl.oz./1000 sq.ft.)	9 pints/A (3.3 fl.oz./1000 sq.ft.)

Spray Volume For Conventional Spray Equipment:
Use 50 to 220 gal/A (1.2 to 5.0 gal/1000 sq.ft.).

For Low Volume Spray Equipment [such as PermaGreen Equipment and backpack sprayers]: Equipment should be calibrated to apply at least 20 gallons per acre (0.45 gallons/1,000 sq.ft.). Use this lower spray volume (0.45 gallons/1,000 sq.ft.) only when your experience indicates that this volume provides effective weed coverage, adequate weed control, acceptable turf safety/tolerance, and will not result in objectionable turf injury.

Note: Use the higher spray volumes (more than 50 gpa) for dense weed populations.

Do not use higher pressure equipment, spray pressure should be 40 psi or lower.

* Temporary turfgrass yellowing may occur on fine fescues.
** See Table 1 for a description of hard-to-control weeds. Do not use "Hard-To-Control" rate on Bermudagrass [zoysiagrass, or buffalograss].

TABLE 3. BROADCAST TREATMENTS FOR BERMUDAGRASS [ZOYSIAGRASS AND BUFFALOGRASS]	
Application Site	**Use Rate per Application**
Bermudagrass (common and hybrid) [Zoysiagrass, buffalograss]	7 to 8 pints/A (2.6 to 3.0 fl.oz./1000 sq.ft.)

Spray Volume For Conventional Spray Equipment:
Use 50 to 220 gal/A (1.2 to 5.0 gal/1000 sq.ft.).

For Low Volume Spray Equipment [such as PermaGreen Equipment and backpack sprayers]:
Equipment should be calibrated to apply at least 20 gallons per acre (0.45 gallons/1,000 sq.ft.). Use this lower spray volume (0.45 gallons/1,000 sq.ft.) only when your experience indicates that this volume provides effective weed coverage, adequate weed control, acceptable turf safety/tolerance, and will not result in objectionable turf injury.

- Apply only when Bermudagrass [zoysiagrass, and buffalograss] is actively growing.
- Expect temporary discoloration.
- Some Bermudagrass hybrids [and improved varieties of zoyisagrass and buffalograss] are moderately tolerant to this product and may be more susceptible to discoloration.
- For Bermudagrass hybrids [and improved varieties of zoysiagrass and buffalograss], use lower rates until tolerance to injury can be determined.
- It is impossible to test all environmental conditions and all Bermudagrass hybrids [and improved varieties of zoyisagrass and buffalograss]. We suggest testing this product on a small area and observe the treated area for 30 days (during normal growing conditions) to determine the acceptability of turf discoloration.
- Some stunting of the Bermudagrass [zoysiagrass and buffalograss] should be expected and turf generally recovers in 7 to 21 days.
- Do not apply in the fall during fall-to-winter transition period.
- Do not apply in the spring during winter-to-spring transition period.
- To avoid turf injury, use only on Bermudagrass [zoysiagrass and buffalograss] that is not under 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.
- For optimum results:
  - Irrigate 24 hours before and 24 hours after application with 1/2 inch of water.
  - The addition of nitrogen fertilizer or chelated iron [such as FeRROMEC® Plus MICROS] to the tannkmix

may reduce some turf discoloration.
- Spray in the morning hours and avoid application during extreme hot or dry conditions.
- Equipment calibration is essential and avoid spray overlaps.
  Do not use higher pressure equipment, spray pressure should be 40 psi or lower.

SPOT TREATMENTS

Calibration and proper application are essential when using this product. Spray coverage should be uniform and complete. Over applications can result in turfgrass injury.

- Mix 2.6 to 3.0 fl.oz. of this product with 1.0 gallon of water for treatment of approximately 1,000 sq.ft. of turfgrass.
- For hard-to-control weeds in cool-season turfgrass (see Table 2) mix 3.3 fl.oz. of this product with 1.0 gallon of water for treatment of approximately 1,000 sq.ft. of turfgrass. Do not use "Hard-To-Control" rate on Bermudagrass [zoysiagrass, or buffalograss].
- Apply to weeds during the growth stages as shown in Table 1.
- Apply any time the emerged broadleaf weeds listed are actively growing.

WEEDS CONTROLLED:

EH-1427 Herbicide will control or suppress the following. Apply anytime the emerged weeds are susceptible.

Aster, white heath & white prairie
Bedstraw
Beggarweed, creeping
Bindweed
Black medic
Broadleaf plantain
Buckhorn plantain
Bull thistle
Burdock, common
Buttercup, creeping
Carpetweed
Chickweed, common
Chicory
Cinquefoil
Clovers
Crabgrass[1, 2] (large and smooth)
Curly dock
Dandelion
Dayflower
Deadnettle
Dock
Dogfennel
Dollarweed (*pennywort)
English Daisy[1]
False dandelion (*spotted catsear & common catsear)
Field bindweed (*morningglory & creeping jenny)
Field oxeye-daisy (*creeping oxeye)
Filaree, whitestem & redstem
Florida betony
Florida pusley
Foxtail[1] (green, yellow and giant)
Ground ivy
Groundsel
Geranium (Carolina)
Hawkweed
Healall
Henbit
Innocence (Blue-eyed Mary)
Knotweed
Lambsquarters
Lawn burweed
Lespedeza, common
Mallow, common
Matchweed
Morningglory spp.
Mouseear chickweed
Nutsedge, yellow[3]
Old world diamond flower
Oxalis (*yellow woodsorrel & creeping woodsorrel)
Parsley-piert
Pennsylvania smartweed
Pepperweed
Pigweed
Pineappleweed
Plantain
Poison ivy
Poison oak
Prickly lettuce (*compass plant)
Puncturevine
Purple cudweed
Purslane
Ragweed
Redweed
Red sorrel (*sheep sorrel)
Shepherdspurse
Signalgrass[1] (Broadleaf)
Speedwell *Veronica (Common, Slender and Thymeleaf)
Spurge
Thistles
Virginia buttonweed
White clover (*Dutch clover, honeysuckle clover, white trefoil, & purplewort)
Wild carrot
Wild garlic
Wild geranium
Wild lettuce
Wild mustard
Wild onion
Wild strawberry
Wild Violet[1]
Yarrow
Yellow rocket

*Synonyms

[1] Follow-up application may be required.

[2] Biotypes of large and smooth crabgrass in California have shown varied response to quinclorac. If control failure occurs following a sequential (or follow-up) application, do not reapply this product. Change to a herbicide with a different mode of action [such as [product name]].

[Optional: [3] Suppression only of young and actively growing yellow nutsedge.]

STORAGE AND DISPOSAL

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

PESTICIDE STORAGE: Store in original container in a locked storage area inaccessible to children or pets. 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. 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 [or pressure rinse] container (or equivalent) promptly after emptying.

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.

[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. 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 [or pressure rinse] container (or equivalent) promptly after emptying.

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.

[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

IMPORTANT: Read this LIMITED WARRANTY AND DISCLAIMER before buying or using this product. By opening and using this product, buyer and all users agree to accept the terms of this LIMITED WARRANTY AND DISCLAIMER in their entirety and without exception. If the terms are not acceptable, return this product unopened immediately to the point of purchase, and the purchase price will be refunded in full.

It is impossible to eliminate all risks inherently associated with use of this product. Damage to the treated article, ineffectiveness, or other unintended consequences can result from use of the product under abnormal conditions such as weather, presence of other materials, or the manner or use of application, etc. Such factors and conditions are beyond the control of the manufacturer, and **BY PURCHASING AND USING THIS PRODUCT THE BUYER AND ALL USERS OF THIS PRODUCT AGREE TO ACCEPT ALL SUCH RISKS**. . **TO THE EXTENT CONSISTENT WITH APPLICABLE LAW,** Buyer and all users further agree to assume all risks of loss or damage from the use of the product in any manner that is not explicitly set forth in or that is inconsistent with label instructions, warnings and cautions.

The manufacturer warrants only that this product conforms to the chemical description given on the label, and that the product is reasonably suited for the labeled use when applied according to the Directions for Use, subject to the inherent risks described below. **TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, THE MANUFACTURER NEITHER MAKES NOR INTENDS ANY OTHER EXPRESS OR IMPLIED WARRANTIES, INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, WHICH ARE HEREBY EXPRESSLY DISCLAIMED.**

THE EXCLUSIVE REMEDY OF BUYER AND ALL USERS OF THIS PRODUCT, AND THE EXCLUSIVE LIABILITY OF THE MANUFACTURER, FOR ANY AND ALL LOSES, DAMAGES, OR INJURIES RESULTING FROM THE USE OF HANDLING OF THIS PRODUCT, WHETHER OR NOT BASED IN CONTRACT, NEGLIGENCE, STRICT LIABILITY IN TORT OR OTHERWISE, SHALL BE LIMITED, AT THE MANUFACTURER'S OPTION, TO REPLACEMENT OR THE REPAYMENT OF THE PURCHASE PRICE FOR THE QUANTITY OF PRODUCT WITH RESPECT TO WHICH DAMAGES ARE CLAIMED. 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 THE PRODUCT. The Manufacturer must be promptly notified in writing of any claims, whether based in contract, tort, negligence, strict liability, or otherwise, to be eligible to receive either remedy stated above.

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. No employee or agent of the manufacturer or seller is authorized to vary or exceed the terms of this LIMITED WARRANTY AND DISCLAIMER in any manner.

APPENDIX

1. Advertising claims that may be presented on container labeling, advertisements, brochures, and other marketing/sales promotional materials:

- Water-based formula
- Water-based formulation
- Proven performance
- Consistently fast control on tough weeds like dandelion, spurge, clover, plantain, ground ivy and [various other listed weeds].
- "Four-In-One" or "4-in-1"
- Controls crabgrass, foxtail and signalgrass
- From the makers of Trimec® herbicides.
- Trimec® is a registered trademark of PBI/Gordon Corporation.
- For information call XXX-XXX-XXXX [contact www.xxx-xxxx.com]
- ProForm™ logo presented on the containers

- Post-emergent yellow nutsedge suppression, crabgrass control, plus broadleaf weeds—FAST!
- For use on: Bluegrass, Fescues, Perennial Ryegrass and Annual Ryegrass
- Versatile post-emergent control of both grassy-grass weeds and broadleaf weeds
- Yellow nutsedge [suppression] [control]
- Crabgrass and foxtail control
- Wide window of application for broadleaf weeds
- Foliar application
- Protox inhibitor activity for rapid desiccation and death of broadleaf weeds.
- Fast visual response
- Suitable for applications up to 90° [degrees] F
- Easy To Use Water-Based Formulation
- Water based [Formulation]
- Highly selective on cool-seaso turfgrasses

DOCUMENT CONTROL INFORMATION

1. Unique Label Identifier: 02217-00886.20190904.amend-proposed-clean

2. Reason for Issue: EPA Comments #2, Registration Review – Sulfentrazone (with Quinclorac)