

#### UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION

July 14, 2023

Eric D. Smith Director, Regulatory Affairs PBI/Gordon Corporation P.O. Box 860350 Shawnee, KS 66286

Subject: Registration Review Label Mitigation for Quinclorac Product Name:EH-1434 HERBICIDE EPA Registration Number: 2217-901 Application Date: January 31, 2019 Decision Number: 592119

Dear Eric D. 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 Quinclorac Interim Decision, 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 Assurance.

A stamped copy of your labeling is enclosed for your records. This labeling supersedes all previously accepted labeling. You must submit one copy of the final printed labeling before you release the product for shipment with the new labeling. In accordance with 40 CFR 152.130(c), you may distribute or sell this product under the previously approved labeling for 12 months from the date of this letter. After 12 months, you may only distribute or sell this product if it bears this new revised labeling or subsequently Page 2 of 2 EPA Reg. No. 2217-901 Decision No. 592119

approved labeling. "To distribute or sell" is defined under FIFRA section 2(gg) and its implementing regulation at 40 CFR 152.3.

If you have any questions about this letter, please contact Caleb Carr via email at <u>carr.caleb@epa.gov</u>.

Sincerely,

< 2 ~

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

Enclosure



and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No. 2217-901 2,4-D QUINCLORAC DICAMBA GROUP 4 HERBICIDE

# EH-1434 HERBICIDE

# EPA Reg. No. 2217-901

ACTIVE INGREDIENT:	
2,4-D, dimethylamine salt	11.96%
Quinclorac	
Dicamba, dimethylamine salt	1.37%
INERT INGREDIENTS:	
TOTAL	100.00%

THIS PRODUCT CONTAINS:

0.88 lb 2,4-dichlorophenoxyacetic acid equivalent per gallon or 9.93%

0.50 lb 3,7-dichloro-8-quinolinecarboxylic acid per gallon or 5.65%

0.10 lb 3,6-dichloro-o-anisic acid equivalent per gallon or 1.14%

Isomer Specific by AOAC Method.

### **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 someone to explain it to you in detail.)

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

See attached booklet 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



## PRECAUTIONARY STATEMENTS

#### Hazards to Humans and Domestic Animals

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

#### **Personal Protective Equipment**

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

- long-sleeved shirt and long pants,
- shoes and socks, plus
- waterproof 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.

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	
If swallowed:	<ul> <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>
If in eyes:	<ul> <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>
If on skin or clothing:	<ul> <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>
	t container or label with you when calling a poison control center or doctor or going for nay 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 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.

#### **Physical And Chemical Hazards**

Combustible. Do not use or store near heat or open flame.

### **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,
- waterproof gloves,
- 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:

#### 3-in-1 Herbicide

EH-1434 Herbicide contains three (3) active ingredients including quinclorac that broaden the spectrum of weed control to include grassy and broadleaf weeds. EH-1434 Herbicide is a versatile herbicide that will control many troublesome grassy and broadleaf weeds in established turfgrass when used as directed.

- 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 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, chlorosis, 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 chlorosis.

#### WEED RESISTANCE MANAGEMENT

For resistance management, this product contains Group 4 herbicides. Any weed population may contain or develop plants naturally resistant to this product and other Group 4 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 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 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 resistancemanagement 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 selective broadleaf control in warm-season and cool-season turfgrass in five (5) use 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 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

**Established turfgrass:** EH-1434 Herbicide can be applied as a broadcast treatment to the following established turfgrass species:

Cool season turfgrass	Warm season turfgrass
Kentucky bluegrass	Bermudagrass, common and hybrid
Perennial ryegrass	Zoysiagrass
Fine fescues in blends/mixtures of red, hard and	Buffalograss
chewings fescue	
Tall fescue	
Annual bluegrass (Poa annua)	
Rough bluegrass (Poa trivialis)	

#### **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.

Cool season turfgrass	Warm season turfgrass	Other areas
Bentgrass, creeping	St. Augustinegrass	Putting greens, tees and collars at golf
Bentgrass, colonial	Bahiagrass	courses
-	Centipedegrass	Lawns with desirable clovers or legumes
	Carpetgrass	Dichondra
	Seashore paspalum	Ornamentals (flowers, trees, groundcovers,
		landscape beds and shrubs)

#### **DO NOT** apply EH-1434 Herbicide to the following:

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*, CO1-0132C, (W.D. WA). For further information, please refer to http://www.epa.gov/espp.

#### **Turfgrass tolerance:**

- Turfgrass tolerance to this product may vary, and temporary turfgrass yellowing may occur on hybrid bermudagrass 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

- Certain spray tank additives (adjuvants, wetting agents, and 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.
- 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 4 weeks 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 through any type of irrigation system.
- Do not apply this product immediately before rainfall or irrigation.
- **Rainfast period:** Rainfall or irrigation occurring within six (6) hours after application of this product may reduce the effectiveness.
- 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 will help to optimize weed control.

#### 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-1434 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-1434 Herbicide <u>WITH</u> 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 text]

#### Additions of Adjuvants (and/or Tank Mixtures) to Improve Grassy Weed Control:

Methylated seed oil may be a suitable adjuvant for post-emergent applications and may cause slight yellowing to desirable turf. Liquid iron and chelated iron or sprayable soluble nitrogen 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 emulsifiable concentrate (EC) formulations 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. 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.

#### **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, compression sprayers, and knapsack sprayers are appropriate for small turfgrass areas when power equipment is unavailable, uneconomical, or impractical. 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 volumes:** Use 20 to 220 gallons per acre (0.5 to 5.0 gallons per 1,000 sq.ft.) with spray pressures adjusted to between 20 to 40 psi. Use higher spray volumes for dense weed populations (up to 220 gallons per acre or 5 gallons per 1,000 sq.ft.)

#### 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.

• 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).

Aerial application: Do not apply as an aerial application.

#### 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 very coarse spray, apply only as a coarse or very coarse spray (ASABE standard S572.1).

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 (ASABE standard S572.1).

#### Wind Speed

Do not apply when wind speeds are greater than 10 mph at the application site. Only apply this product if the wind direction favors on-target deposition and there are not sensitive areas (including, but not limited to, residential areas, 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. Do not release spray at a height higher than 30 inches above the ground.

#### POSTEMERGENT CONTROL OF GRASSY WEEDS

EH-1434 Herbicide can provide postemergent control and suppression of certain grassy weeds in turfgrass. Apply this product to weeds that are young and actively growing for best results (see Table 1). Applications under adequate soil moisture conditions are preferred to summer treatments.

Broadcast or spot treatments with single or sequential applications will control or suppress these grass weeds:

Crabgrass, (large and smooth) Foxtail, (green, yellow and giant) Signalgrass, (broadleaf) Barnyardgrass

Weed control is affected by the spray volume, spray schedule and the weed growth stages. Generally, apply this product to actively-growing weeds during the early growth stages for the best results.

EH-1434 Herbicide can be applied from emergence to the 2 to 3 tiller stage of crabgrass and other annual, susceptible grasses listed on this label. Applications beyond the 3 to 4 tiller stages of the listed species may not provide adequate control.

**For crabgrass and foxtail:** Apply this product from emergence (1 leaf) until the 6 leaf stage (2 tiller) for the best results.

**For broadleaf signalgrass and barnyardgrass:** Apply this product from the 3 leaf stage until the 7 leaf stage (3 tiller) for the best results.

**SPRAY VOLUMES**: IMPORTANT - Use 50 to 220 gallons per acre (1.2 to 5.0 gallons per 1,000 sq.ft.) with spray pressures adjusted to between 20 to 40 psi. Use higher spray volumes for dense weed populations (up to 220 gallons per acre or 5 gallons per 1,000 square feet).

**SPRAY SCHEDULE:** Use single applications for light infestations and sequential applications for dense infestations. The use rates for single and sequential applications are presented in Table 2.

**Sequential applications:** Sequential (or followup applications) if needed as either broadcast or spot treatments should be made between 14 to 21 days after the initial application and are recommended for more mature weeds, for dense infestations and for adverse environmental conditions. Other situations which may indicate the need for sequential applications include:

- 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 under a sequential program, 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; some injury can also be expected with spot treatments when air temperatures exceed 90°F.

**WEED GROWTH STAGES:** See Table 1 below for the optimum weed growth stage to treat for best control and efficacy.

TABLE 1. LEAF STAGES OF GR	ASSI WEEDS		CONTROL WIT	H THIS PRODUC	JI.
Weed species	1 to 3 leaf	4 to 5 leaf (1 tiller)	6 leaf (2 tillers)	7 leaf (3 tillers)	8 leaf (4 tillers)
Barnyardgrass Crabgrass, (large and smooth) Foxtail, (green, yellow and giant) Signalgrass, (broadleaf)	x	х	х	Footnote 1	Footnote 1 (reduced control)

<sup>1</sup>Sequential applications may be required at 14 to 21 days with a maximum of two broadcast applications per year.

## TABLE 2. USE RATES FOR GRASSY WEEDS IN TURF

Turr Species EH-1434 Herbicide Can be Used On			
Cool-season Turf:	Warm-season Turf:		
	hybrid bermudagrass,		
perennial ryegrass,	common bermudagrass		
fescues,	zoysiagrass,		
	buffalograss		
rough bluegrass (Poa trivialis)			
annual ryegrass			

Do not apply this product to warm-season turfgrass during spring green-up or in the fall during transition period between active growth and dormancy.

**Dormant turf:** This product may be applied to fully dormant bermudagrass, fully dormant zoysiagrass, and fully dormant buffalograss

Application schedule	Rates	Spray Volume*	Maximum number of broadcast applications	Application Interval, days
	7 to 8 pints/A	50 to 220 gal/A		
Single	or	or	2	
-	2.6 to 3.0 fl.oz./1000 sq.ft.	1.2 to 5.0 gal/1000 sq.ft.		
	First application: 7 to 8 pints/Acre plus Second application: 7 to 8 pints/Acre	20 to 220 gallons/acre		
Sequential	or First Application: 2.6 to 3.0 fl.oz./1,000 sq.ft.	or	2	14 to 21 days
	plus Second application: 2.6 to 3.0 fl.oz./1,000 sq. ft.	0.5 to 5.0 gals./1,000 sq.ft.		

#### SPOT TREATMENTS FOR GRASSY WEEDS:

- 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. Apply to actively growing weeds during the early growth stages as shown in Table 1.

#### TANK MIXTURES FOR GRASSY WEEDS

**Pre-emergent herbicides with residual activity for crabgrass and annual grasses:** This product can be tank-mixed with EPA-registered preemergent herbicides (if compatible) to provide extended preemergent control. Do not exceed the specified dosage rates.

Physical incompatibility, reduced weed control or turf injury may result from mixing this product with other pesticides (fungicides, herbicides and insecticides) adjuvants, additives, or fertilizers. Refer to manufacturer's labels for specific use directions, precautions and limitations before tank mixing with this product and follow those that are most restrictive.

**Post-emergent herbicides for grassy control:** DO NOT tank mix this product with other post-emergent herbicide EPA-registered for grassy control in turfgrass.

NOTE: The most restrictive labeling applies to any tank mixture. Consult tolerant turfgrass species on all labels. Separate applications should be made if all target weeds are not at the correct growth stage for treatment at the same time.

#### 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.

**Sequential application:** Sequential (or follow-up) applications as broadcast or spot treatments are recommended for more mature weeds, for dense infestations, and for adverse environmental conditions.

Extremes in environmental conditions e.g. temperature and moisture, soil conditions, and cultural practices may affect the activity of this product. 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 this product.

Do not broadcast apply this product when temperatures are above 90°F, some injury may be expected with spot treatments when air temperatures exceed 90°F.

#### HOW MUCH TO USE:

See Table 3 for use rates and spray volumes for post-emergent application to broadleaf weeds. 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 hardened off or more mature.

Turf Species					
Cool-season Turf:		Warm-season Turf:			
Kentucky bluegrass, perennial ryegrass,		common bermudagrass,	hybrid bermudagrass, common bermudagrass		
fescues, annual bluegrass ( <i>Poa annua</i> ) rough bluegrass ( <i>Poa trivialis</i> ) annual ryegrass		zoysiagrass, buffalograss			
Do not apply this product to warr between active growth and dorm <b>Dormant turf:</b> This product may dormant buffalograss.	ancy.		<b>C</b>		
Single and Sequential Applica	tions				
Application schedule	RATES	Spray volume	Maximum number of broadcast applications		

Single	7 to 8 pints/Acre or	20 to 220 gallons/acre or	2
	2.6 to 3.0 fl.oz./1,000 sq.ft.	0.5 to 5.0 gals./1,000 sq.ft.	
	First application: 7 to 8 pints/Acre plus Second application: 7 to 8 pints/Acre	20 to 220 gallons/acre	
Sequential	or	or	2
	First Application: 2.6 to 3.0 fl.oz./1,000 sq.ft. plus Second application: 2.6 to 3.0 fl.oz./1,000 sq.ft.	(0.5 to 5.0 gals./1,000 sq.ft.	

#### SPOT TREATMENTS FOR BROADLEAF WEEDS:

- 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 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 actively growing.

#### **RESTRICTIONS AND LIMITATIONS FOR USE IN TURF**

EH-1434 Herbicide contains the dimethylamine salt of 2,4-D combined with two other active ingredients. The maximum allowable application rates for the dimethylamine salt of 2,4-D and the dimethylamine salt of dicamba associated with three specific use patterns are presented as follows:

Turf sites	Application schedule	Maximum application rate	Maximum number of application s per year	Days between applications	Maximum seasonal application rate excluding spot treatments
Ornamental turfgrass (golf courses, cemeteries, parks, sports fields, lawns and other grass areas)	Broadcast	8.0 pints/A (0.88 lb 2,4-D ae/A) (0.50 lb quinclorac ai/A) (0.10 lb dicamba ae/A)	2	NA	16 pints/A (1.76 lb 2,4-D ae/A) (1 lb quinclorac ai/A) (0.20 lb dicamba ae/A)
Turf grown for grass seed or sod farms	Broadcast	8.0 pints/A (0.88 lb 2,4-D ae/A) (0.50 lb quinclorac ai/A) (0.10 lb dicamba ae/A)	2	21 days	16 pints/A (1.76 lb 2,4-D ae/A) (1 lb quinclorac ai/A) (0.20 lb dicamba ae/A)
Turfgrass in non- cropland (roadsides, ditches, rights-of-way, utility power lines, railroads, airports, and industrial sites)	Broadcast	8.0 pints/A (0.88 lb 2,4-D ae/A) (0.50 lb quinclorac ai/A) (0.10 lb dicamba ae/A)	2	30 days	16 pints/A (1.76 lb 2,4-D ae/A) (1 lb quinclorac ai/A) (0.20 lb dicamba ae/A)

Maximum of 2 applications per year, including broadcast applications in combination with spot treatments.

Applications to non-cropland areas are not applicable to treatment of commercial timber or other plants being grown for sale or other commercial use, or for commercial seed production, or for research purposes.

#### WEEDS CONTROLLED:

EH-1434 Herbicide will control or suppress the following. Apply when weeds are young and actively growing.

Aster, white heath & white prairie Barnyardgrass Bedstraw Beggarweed, creeping Bindweed Black medic Broadleaf plantain Buckhorn plantain Bull thistle Burdock, common Buttercup, creeping Carpetweed Chickweed, common Chicory Cinquefoil Clovers Crabgrass 1 (large and smooth) Curly dock Dandelion Dayflower Deadnettle Dock Dogfennel Dollarweed (\*pennywort) English Daisy False dandelion (\*spotted catsear & common catsear) Field bindweed (\*morningglory & creeping jenny)

Field oxeye-daisy (\*creeping oxeve) Filaree, whitestem & redstem Florida betonv Florida pusley Foxtail (green, yellow and diant) 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 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 Radweed Redweed Red sorrel (\*sheep sorrel) Shepherdspurse Signalgrass (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 Yarrow Yellow rocket

#### \*Synonyms

<sup>1</sup>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 Gordon's Trimec Plus Post-Emergent Grass & Broadleaf Herbicide (EPA Reg. No. 2217-709)].

### STORAGE AND DISPOSAL

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

## 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 of use or 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. 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.

TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, THE EXCLUSIVE REMEDY OF BUYER AND ALL USERS OF THIS PRODUCT, AND THE EXCLUSIVE LIABILITY OF THE MANUFACTURER, FOR ANY AND ALL LOSSES, DAMAGES, OR INJURIES RESULTING FROM THE USE OR 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 OF OR THE REPAYMENT OF THE PURCHASE PRICE FOR THE QUANTITY OF PRODUCT WITH RESPECT TO WHICH DAMAGES ARE CLAIMED. IN NO CASE SHALL THE MANUFACTURER BE LIABLE FOR INCIDENTIAL, CONSEQUENTIAL, OR SPECIAL DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS 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 WARRANTY STATEMENT 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].
- Controls grass and broadleaf weeds "All-In-One"
- "Three-In-One" or "3-in-1"
- Controls crabgrass, foxtail and signalgrass
- For information call XXX-XXX-XXXX [contact <u>www.xxx-xxxx.com</u>]

## **DOCUMENT CONTROL INFORMATION**

- 1. Unique Label Identifier: 002217-00901.20230526.amend-proposed-clean.doc
- 2. Reason for Issue: EPA Comments #3 + Registration Review Quinclorac