

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON D C 20460

OFFICE OF PREVENTION PESTICIDES AND TOXIC SUBSTANCES

7-30-09

Mr Morris Gaskins Albaugh Inc P O Box 2127 Valdosta GA 31604

Subject

Quinclorac 4L Turf

EPA Registration Number 42750 172

Submission dated July 22 2009

Response to Agency email dated July 21 2009

Dear Mr Gaskins

The labeling referred to above submitted in connection with registration under the Federal Insecticide Fungicide and Rodenticide Act as amended is acceptable provided you make the following changes before you release the product for shipment

- 1) Add appropriate Net Contents information to the label
- 2) Add an appropriate EPA Establishment Number to the label

Submit one (1) copy of final printed labeling incorporating the above changes before you release the product for shipment. Amended labeling will supercede all previously accepted ones A stamped copy of labeling is enclosed for your records.

If you have any questions please contact Hope Johnson at 703 305 5410

Sincerely

James A Tompkins Product Manager 25

Herbicide Branch

Registration Division (7505P)

QUINCLORAC 4L TURF

Herbicide

ACTIVE INGREDIENT
3 7 dichloro 8 quinolinecarboxylic acid
OTHER INGREDIENTS
TOTAL

40 0% 60 0% 100 0%

Contains 3 8 pounds of quinclorac per gallon

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 this label find someone to explain it to you in detail)

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 ON SKIN

- 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

IF IN EYES

- Hold eye open and rinse slowly and gently with water for 15 20 minutes
- Remove contact lenses if present after first 5 minutes then continue rinsing eye
- Call a poison control center or doctor for treatment advice

IF INHALED

- Move person to fresh air
- If person is not breathing call 911 or an ambulance then give artificial respiration preferably by mouth to mouth if possible
- Call a poison control center or doctor for further treatment advice

NOTE TO PHYSICIAN Probable mucosal damage may contraindicate the use of gastric lavage. Have the product container or label with you when calling a poison control center or doctor or going for treatment.

In Case of Emergency regarding this product call CHEMTREC 1 800 424 9300

EPA Reg No 42750 172

EPA Est No xxxxx xx xxx

NET CONTENTS

ACCEPTED with COMMENTS in EPA Letter Dated

JUL 30 2009 Anki

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

42750-172

MANUFACTURED FOR Albaugh Inc Ankeny IA 50021

PRECAUTIONARY STATEMENTS

Hazards to Humans and Domestic Animals

CAUTION Harmful if swallowed or absorbed through the skin Causes moderate eye irritation. Avoid contact with skin clothing or eyes. Avoid breathing dust or spray mist

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Some materials that are chemically resistant to this product are listed below. For more options, refer to category A on an EPA chemical resistance category selection chart.

Applicators and other handlers must wear

- 1 Long sleeved shirt and long pants
- 2 Chemical resistant gloves such as butyl rubber > 14 mils or natural rubber > 14 mils or neoprene rubber > 14 mils or nitrile rubber > 14 mils
- 3 'Shoes plus socks

Follow manufacturers 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 CONTROLS STATEMENT

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

- 1 Wash hands before eating drinking chewing gum using tobacco or using the toilet
- 2 Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- 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.

ENVIRONMENTAL HAZARDS

This chemical has properties and characteristics associated with chemicals detected in groundwater. The use of this chemical where soils are permeable particularly where the water table is shallow may result in groundwater contamination.

Keep out of lakes ponds and streams Do not apply directly to water areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water by cleaning of equipment or disposal of rinsate

DIRECTIONS FOR USE

It is a violation of federal law to use this product in a manner inconsistent with this labeling

For use only by certified commercial applicators or persons under their direct supervision and only for those uses covered by the certified applicator's certification. All applicable directions restrictions and precautions are to be followed. This labeling must be in the possession of the user at time of application.

DO NOT apply this product by air or through any type of irrigation equipment

Albaugh Inc does not recommend or authorize <u>intend</u> the use of this product in manufacturing processing or preparing custom blends with other products for application to turf

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 specified area during application.

For any requirements specific to your State or tribe consult the agency responsible for pesticide regula tion

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 (PPE) 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 12 hours

PP_IE 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 and water is

- 1 Coveralls
- 2 Chemical resistant gloves made of any water proof material (such as Nitrile Butyl Neoprene and/or Barrier Laminate)
- 3 Shoes plus socks

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 increases or greenhouses.

Professional applications to residential and nonresidential turf are not within the scope of the Worker Protection Standard with the exception of turf being grown for sale or other commercial use as sod, or for commercial seed production, or for research purposes

Do not enter or allow others to enter the treated area until sprays have dried

STORAGE AND DISPOSAL

Do not contaminate water food or feed by storage or disposal

PESTICIDE STORAGE Store in cool dry and well ventilated area. Do not store containers under wet conditions

PESTICIDE DISPOSAL Wastes resulting from this product may be disposed of on site or at an approved waste disposal facility

CONTAINER DISPOSAL Triple rinse (or equivalent) Then offer for recycling or reconditioning or puncture and dispose of in a sanitary landfill or incineration or if allowed by state and local authorities by burning. If burned stay out of smoke

CONTAINER DISPOSAL Non refillable containers (1, 2 5, 30 & 55 gallon) Do not reuse or refill this container Offer for recycling, if available Triple rinse or pressure rinse container (or equivalent) promptly after emptying

(non refillable <5 gallons) 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 ½ 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

(non refillable >5 gallons) Triple rinse as follows Empty the remaining contents into application equipment or a mix tank Fill the container ½ 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 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 (all sizes) 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 for 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

Refillable container (250 gallon & bulk) Refill this container with pesticide only Do not reuse this container for any other purpose 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 the container into application equipment or 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 rinseate into application equipment or rinsate collection system. Repeat this rinsing process two more times.

GENERAL INFORMATION USE INFORMATION

QUINCLORAC 4L TURF herbicide may be applied postemergence to residential and nonresidential turfgrasses (Refer to Table 1) for the control of many broadleaf and grass weeds Examples of such sites include but are not limited to grounds or lawns around residential and commercial establishments multifamily dwellings military and other institutions parks airports road sides schools picnic grounds athletic fields houses of worship cemeteries golf courses and sod farms

QUINCLORAC 4L TURF herbicide is absorbed by foliage and roots and translocated throughout the plant. The control symptoms exhibited by broadleaf weeds include leaf and stem curl or twisting, and chlorosis. Susceptible grasses demonstrate stunting chlorosis and gradual reddening followed by necrosis and death. Refer to Tables 1.2 and 3 for turfgrass tolerance and susceptible weed species.

APPLICATION INFORMATION

Apply QUINCLORAC 4L TURF herbicide to actively growing weeds as postemergence broadcast or spot sprays using the rate turf species and growth stage indicated in Tables 1 2 and 3 Do not exceed the specified application rate or fail to comply with use restrictions listed in General Restrictions and Limitations

To achieve consistent weed control methylated seed oil is recommended. Refer to Tables 2 and 3 for rates

Adding adjuvants may cause slight leaf burn but new growth is normal and turf vigor is not reduced. The potential for leaf burn is increased when relative humidity and temperature are high. Additional stress from low moving heights may also increase the possibility of turf injury. Chelated iron or sprayable

soluble nitrogen fertilizer will reduce a slight yellowing that may occur on some turfgrass species

Spot Applications

Postemergence spot applications may be made to susceptible weeds in turfgrass that is tolerant to QUINCLORAC 4L TURF herbicide (see Tables 1 and 2) Apply 0.55 fluid ounces of QUINCLORAC 4L TURF herbicide per 1.000 square feet of treated area. Spray coverage should be uniform and complete

Mowing Information

Do not mow 2 days before or after applying QUINCLORAC 4L TURF herbicide to maximize weed control and minimize potential turf injury. Clippings from the first three mowings should be left on the treated area.

Irridation and Rainfall

If soil moisture is not sufficient prior to QUINCLORAC 4L TURF herbicide application irrigation may improve weed control. For best results do not water or irrigate for 24 hours after application. If rainfall does not occur in 2 to 7 days after application, apply irrigation of at least one half inch.

Extended Grass Control

To extend grass control QUINCLORAC 4L TURF herbicide can be tank mixed with Pendulum 3 3 EC PRE M 3 3 turf herbicide or Pendulum 60 DG to provide residual control of annual grasses. Consult the respective tank mix labels for additional weeds controlled

Seeding/Overseeding/Sprigging

The use of QUINCLORAC 4L TURF herbicide before or after seeding or overseeding a turf area will not significantly interfere with the turfgrass seed germination and growth of those grass types identified as tolerant in Table 1 Consult Tablet 4 for timing of applications concerning any seeding overseeding or sprigging situation

ADDITION OF ADJUVANTS

Additives in Spray Mix to Achieve Control

Methylated seed oil is the recommended adjuvant for postmergence applications. Do not include additives when tank mixing with EC (Emulsifiable Concentrate) products as this may cause phytotoxicity. Consult your local Albaugh. Inc. representative or distributor for recommendations for your area. Other additives or adjuvants may be used such as DyneAmic Lesco Spreader Sticker LI 700. Surf King Spreader. Target Pro Spreader or Thoroughbred. However, under some environmental conditions some of these products may cause photo toxicity or less than optimal efficacy.

Methylated Seed Oil Recommended

The methylated seed oil used as the adjuvant with QUINCLORAC 4L TURF herbicide must meet all the following criteria

• be nonphytotoxic

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- contain only EPA exempt ingredients
- I provide good mixing quality in the jar test and
- be successful in local experience

The exact composition of suitable products will vary however any Methylated Seed Oil used should contain emulsifiers to provide good mixing

MIXING INSTRUCTIONS FOR QUINCLORAC 4L TURF HERBICIDE

Respective sections of this leaflet define recommended QUINCLORAC 4L TURF herbicide tank mix treatments. If tank mixing with products in PVA bags always allow water soluble packets to dissolve before agitating

Ground Driven Sprayer

1 Begin with a clean spray tank Fill tank one half to three quarters full with clean water

2 QUINCLORAC 4L TURF herbicide Alone

When using QUINCLORAC 4L TURF herbicide alone either premix (1 part product + 2 parts water) or slowly add QUINCLORAC 4L TURF herbicide to the partially filled tank while agitating until completely dispersed Fill the remainder of the tank with water

- 3 QUINCLORAC 4L TURF herbicide tank mixes
- a Wettable Powder Formulations
 - 1 When using QUINCLORAC 4L TURF herbicide with a wettable powder formulation add QUINCLORAC 4L TURF herbicide to the partially filled tank while agitating
 - When QUINCLORAC 4L TURF herbicide is properly mixed add a slurry of the wettable powder (1 part WP + 2 parts water) slowly into the tank. Fill the remainder of the tank while agitating

b Flowable Formulations

- When using QUINCLORAC 4L TURF herbicide with a flowable formulation add QUINCLORAC 4L TURF herbicide to the partially filled tank while agitating
- When QUINCLORAC 4L TURF herbicide is properly mixed premix one part of the flowable with two parts water and add this diluted mixture slowly into the tank. Fill the remainder of the tank while agitating
- c Emulsifiable Concentrate Formulations
 - 1 When using QUINCLORAC 4L TURF herbicide with an emulsifiable concentrate formulation add QUINCLORAC 4L TURF herbicide to the partially filled tank while agitating
 - When QUINCLORAC 4L TURF herbicide is properly mixed premix one part of the emulsifiable concentrate with two parts water and add this diluted mixture slowly into the tank Fill the remainder of the tank while agitating
- d Dry Flowable (Water Dispersible Granule) Formulations
 - 1 When using QUINCLORAC 4L TURF herbicide with a dry flowable formulation add QUINCLORAC 4L TURF herbicide to the partially filled tank while agitating
 - When QUINCLORAC 4L TURF herbicide is properly mixed premix one part of the dry flowable with two parts water and add this diluted mixture slowly into the tank. Fill the remainder of the tank while agitating
- 4 MAINTAIN CONTINUOUS AGITATION WHILE ADDING HERBICIDES AND UNTIL SPRAYING IS COMPLETED If the spray mixture is allowed to settle for any period of time thorough agitation is essential to resuspend the mixture before spraying is resumed Continue agitation while spraying

Backpack Sprayer

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Begin with a clean spray tank Fill the spray tank 1/2 full with clean water and add the required amount of QUINCLORAC 4L TURF herbicide to the sprayer Cap sprayer and agitate to ensure mixing Uncap sprayer and finish filling tank to desired level Cap sprayer and agitate once again During application it is desirable to agitate the mixture on occasion of ensure mixing. If the mixture is allowed to settle for any

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period of time, thorough agitation is essential to resuspend the mixture before spraying is resumed

Liquid Fertilizers

Prior to mixing small quantities should always be tested using a simple jar test. Add the required amount of QUINCLORAC 4L TURF herbicide to half filled tank while agitating then add the fertilizer product Complete filling spray tank to desired level

SPRAYING INSTRUCTIONS FOR QUINCLORAC 4L TURF HERBICIDE

Apply with properly calibrated ground equipment in sufficient water per acre to provide uniform spray distribution (at least 20 gallons of water per acre or at least 0.5 gallon per 1.000 sq. ft.) Use low pressure (e.g. 20.40 psi) sprayers

Maintain continuous agitation during spraying with good mechanical or bypass agitation. Nozzle screens must be no finer than 50 mesh (100 mesh is finer than 50 mesh). Check sprayer routinely to determine proper calibration. Flat fan flood or cone nozzles may be used. Nozzles should be arranged to obtain uniform coverage or turf and weeds to be controlled. Boom height nozzle selection, and pressure should be adjusted to provide uniform coverage and minimize spray drift.

Avoid overlaps that will increase rates above those specified

Avoid application when winds may cause drift

Procedure For Cleaning Spray Equipment

Clean application equipment thoroughly using a strong detergent or commercial sprayer cleaner according to the manufacturer's directions before and after applying this product

COMPATIBILITY TEST FOR MIX COMPONENTS

Add components in the following sequence using 2 teaspoons for each pound or 1 teaspoon for each pint of specified label rate per acre

- 1 Water For 20 gallons per acre spray volume use 3.3 cups (800 ml) of water For other spray volumes adjust rates accordingly Use only water from the intended source at the source temperature
- 2 Products in PVA bags. Cut an opening in the water soluble PVA bag just large enough to use a teaspoon for measuring purposes. Use the opened water soluble PVA bag first when preparing spray solution. Boron containing fertilizers can be incompatible with PVA material. Include PVA material if a boron fertilizer is intended to be used. Cap the jar and invert 10 cycles.
- 3 Water dispersible products (such as QUINCLORAC 4L TURF herbicide) (dry flowables wettable powders suspension concentrates or suspoemulsions) Cap the jar and invert 10 cycles
- 4 Water soluble products (such as Basagran T/O) Cap the lar and invert 10 cycles
- 5 Emulsifiable concentrates (methylated seed oil) Cap the jar and invert 10 cycles
- 6 Water soluble additives Cap the jar and invert 10 cycles
- 7 Let the solution stand for 15 minutes
- 8 Evaluate the solution for uniformity and stability. The spray solution should not have free oil on the surface nor thick (clabbered) texture. For WG or WP products a fine precipitate that is easily re susupended is normal large non dispersible particles (>300 microns) that precipitate on standing are a sign of tank mix incompatibility. Do not use any spray solution that could clog spray nozzles.

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GENERAL RESTRICTIONS AND LIMITATIONS

- DO NOT apply more than 3 pints (1 425 lbs a i) of QUINCLORAC 4L TURF herbicide per acre (or 1 1 fluid ounces per 1 000 square feet) in one year
- DO NOT apply to golf course collars or greens
- DO NOT apply to fine fescue unless it is part of a seed blend
- DO NOT apply to bahiagrass carpetgrass St Augustinegrass centipedegrass dichondra or lawns or turf where desirable clovers are present
- DO NOT apply within 4 weeks after seedling emergence of Kentucky bluegrass creeping bentgrass fine fescue blends and perennial ryegrass
- DO NOT apply to exposed feeder roots of trees or ornamentals. Be particularly careful within the drip line of trees and other ornamental species.
- DO NOT apply into any ornamental bed
- DO NOT use clippings as mulch or compost around flowers ornamentals trees or in vegetable gardens
- | Apply when wind speed is less than 10 mph as drift may cause damage or death of non target area vegetation DO NOT apply when conditions favor drift from target area
- Use a lawn type sprayer with coarse spray as wind drift is less likely
- Avoid mist and spray onto vegetables flowers ornamentals shrubs trees and other desirable plants especially plants belonging to the Solanaceae family such as tomatoes eggplants and bell peppers
- DO NOT pour spray solutions near these plants
- DO NOT apply through any type of irrigation system
- DO NOT use to formulate or reformulate any other pesticide product which is not registered by EPA
- For best results weeds should not be under stress from lack of water excessive water low fertility moving shock excessive hot or cold temperatures or injury from other herbicide applications
- Do not apply by air

TURFGRASS TANK MIXES

Read and follow the applicable Restrictions and Limitations and Directions For Use on all products involved in tank mixing. The most restrictive labeling applies to any tank mix. To increase spectrum of control of broadleaf weed species a tank mix with 2.4 D. triclopyr MCPA MCPP. Three Way. Trimec or other broadleaf herbicide can be used. For extended residual control apply QUINCLORAC 4L TURF herbicide with Pendulum or PRE M herbicides. For sedge control applications of QUINCLORAC 4L TURF herbicide with Basagran SG. Basagran T/O. Lescogran. Image 70 DG or MSMA can be made.

Combinations with MSMA will aid in control of certain grassy weeds such as bahaigrass or kikulyugrass. Consult tolerant turfgrass species on all labels. Separate applications should be made if all target weeds are not at the correct growth state for treatment at the same time.

Physical incompatibility reduced weed control or turf injury may result from mixing QUINCLORAC 4L TURF herbicide with other pesticides (fungicides herbicides insecticides or miticides) additives or fertilizers

Before tank mixing complete a simple jar test to insure compatibility of herbicides or other pesticide and/or additives. Refer to manufacturers labels for specific use directions precautions and limitations before tank mixing with QUINCLORAC 4L TURF herbicide and follow those that are most restrictive.

Table 1 Turf Tolerance (Established)

Highly Tolerant	Moderately Tolerant	Susceptible	
Bermudagrass Common1	Bentgrass Creeping1	Bahiagrass	
Bluegrass Kentucky	Bermudagrass Hybrid1	Centipedegrass	
Bluegrass Annual	Fescue Fine2	Dichondra	
Buffalograss	Fescue Red	St Augustinegrass	
Fescue Tall	Fescue Hard	Bentgrass Seaside	
Ryegrass Annual	Fescue Chewings	Bentgrass Colonial	
Ryegrass Perennial	Bluegrass Rough (Poa trivialis)		
Zoysiagrass	3		

1Yellowing that occurs on these species can be reduced by the addition of chelated iron or sprayable soluble nitrogen fertilizer (See Application Information Additives)

2Apply QUINCLORAC 4L TURF herbicide to fine fescue only when it is part of a blend

- Do not use on golf course greens and collars
- Consult Table 4 Seeding/Sprigging Chart for this situation

Table 2 QUINCLORAC 4L TURF Application to Established Creeping Bentgrass

Turfgrass Species	Application Rate/Timing	Additive Rate	
Bentgrass Creeping1	QUINCLORAC 4L TURF herbicide must be applied in 2 3 split applications at 0 25 to 0 35 fluid ounces per 1 000 sq ft (not to exceed 3 pints of product per acre per season) Sequential application(s) should be timed 21 days apart	Use methylated seed oil at 0 55 ounces per 1 000 sq ft (1 5 pints per acre)	

1Yellowing that occurs on these species can be reduced by the addition of chelated iron or sprayable soluble nitrogen fertilizer (See Application Information Additives)

- Do not use on golf course greens and collars
- Consult Table 4 Seeding/Sprigging Chart for this situation

Table 3 Application Rates and Timing for Postemergence Weed Control in Turf

Weed	l Species	QUINCLORAC 4L TURF Rate	Additive Rate	
Grasses Controlled				
Common Name Barnyard grass Crabgrass Large 1 4 Crabgrass Smooth 1 4 Foxtails Giant 1 Foxtail Green 1 Foxtail Yellow 1 Kikuyugrass 2 3 Signalgrass Broadleaf 1 Torpedograss 3	Scientific Name Echinochloa crusgalli Digitaria sanguinalis Digitaria ischaemum Setari faberi Setari viridis Setari glauca Penniseturn clandewtinum Brachiaria platyphylla Panicum repens	ochloa crusgalli rra sanguinalis rra ischaemum i faberi i viridis i glauca seturn clandewtinum iraria platyphylla Broadcast Applications 1 5 pints of product per acre or 0 55 fluid ounces per 1 000 square feet		
Broadleaf Weeds Controlled		Spot Applications Apply 0 55 fluid	feet) methylated seed oil	
Common Name Bindweed Field Medic Black Clover Hop Clover Red Clover White Dandelion Common 2 Daisy English 2 5 Dollarweed Geranium Carolina Morningglory spp Speedwell Common Speedwell Slender Speedwell Thymeleaf Violet Wild	Scientific Name Convolvulus arvensis Medicago lupulina Trifolium aureum Pollich Trifolium pratense Trifolium repens Taraxacom officinale Bet/is perenne Hydrocotyle umbellata Geranium carolinium Ipomea sp Veronica officinalis Veronica serpyllifolia Viola sp	ounces of QUINCLORAC 4L TURF per 1 000 square feet of treated area Refer to foot notes in Tables 2 and 3 for specific turfgrass or weed instructions		

- 1 Under certain conditions applications of QUINCLORAC 4L TURF herbicide made to annual grasses at 2 ¹4 tiller may not provide complete control. A sequential application will be required for grass control in these situations. Optimum control is achieved when applications of QUINCLORAC 4L TURF herbicide + methylated seed oil is applied either before second tiller or as weed grasses mature.
- 2 Tank mix partner or sequential application required
- 3 Make 3 sequential applications of 0 35 fluid ounces of QUINCLORAC 4L TURF herbicide per 1 000 square feet at 14 $\,$ 21 day intervals
- 4 Biotypes of large and smooth crabgrass in California have shown varied response to QUINCLORAC 4L TURF herbicide. If control failure occurs following the application of a full or split application rates do not reapply QUINCLORAC 4L TURF herbicide and change to a herbicide with a different mode of action.
- 5 NOT FOR USE to control this weed in California

Table 4 Seeding/Overseeding/Sprigging Timing Chart¹

Variety	Before seeding ²	At Seeding	7 days after emergence	14 days after emergence	28 days after emergence
Annual Bluegrass	OK	OK	OK	OK	OK
Annual Ryegrass	OK	OK	OK	OK	OK
Buffalograss	OK	OK	OK	OK	OK
Common Bermuda ³	OK	OK	OK	OK	OK
Creeping Bentgrass	OK	NO	NO	NO	OK
Fine Fescue On blend)	OK	NO	NO	NO	OK
Hybrid Bermuda ³	OK	OK	OK	OK	OK
Kentucky Bluegrass	OK	NO	NO	NO	OK
Perennial Ryegrass	OK	OK	NO	NO	OK
Tall Fescue	OK	OK	OK	OK	OK
Zoysiagrass ³	OK	OK	OK	OK	OK

¹ Note No adjuvant or additive should be used when QUINCLORAC 4L TURF herbicide applications are made on newly emerged turf seedlings until 28 days after emergence

Application of QUINCLORAC 4L TURF herbicide should be timed around the seeding operations
using the above chart as a reference point

CONDITIONS OF SALE AND WARRANTY

The Directions For Use of this product reflect the opinion of experts based on research and field use. The directions are believed to be reliable and must be followed carefully. However, it is impossible to eliminate all risks inherently associated with use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as weather conditions, presence of other materials herbicide resistant weed populations or the use of or application of the product contrary to label instructions, all of which are beyond the control of Albaugh. Inc. or the Seller. All such risks shall be assumed by the Buyer. Albaugh. Inc. warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes described in the Directions. For Use, subject to the risks referred to above.

TO THE EXTENT CONSISTENT WITH APPLICALBLE LAW ALBAUGH INC DOES NOT MAKE OR AUTHORIZE ANY AGENT OR REPRESENTATIVE TO MAKE ANY OTHER WARRANTIES EXPRESS OR IMPLIED AND EXPRESSLY EXCLUDES AND DISCLAIMS ALL IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE To the extent consistent with applicale law in no case shall Albaugh Inc or the seller be liable for consequential special or indirect damages resulting from the use or handling of this product

² QUINCLORAC 4L TURF herbicide can be applied 7 days or greater prior to seeding

³ QUINCLORAC 4L TURF herbicide can be used anytime prior to at or after sprigging