

# UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION

September 21, 2018

Morris Gaskins Registrations Manager Albaugh, LLC P.O. Box 2127 Valdosta, GA 31604

Subject: Label Amendment – Correct application rates, add spot treatment spray mix table,

and update resistance management recommendations

Product Name: Quinclorac 75DF SP EPA Registration Number: 42750-90 Application Date: December 5, 2017

Decision Number: 536525

Dear Mr. Gaskins:

The amended label referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), as amended, is acceptable. This approval does not affect any conditions that were previously imposed on this registration. You continue to be subject to existing conditions on your registration and any deadlines connected with them.

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 18 months from the date of this letter. After 18 months, you may only distribute or sell this product if it bears this new revised labeling or subsequently approved labeling. "To distribute or sell" is defined under FIFRA section 2(gg) and its implementing regulation at 40 CFR 152.3.

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 FIFRA 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.

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Your release for shipment of the product 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, please contact Mindy Ondish by phone at 703-605-0723, or via email at ondish.mindy@epa.gov.

Sincerely,

Reuben Baris, Product Manager 25

Herbicide Branch

Registration Division (7505P)

Office of Pesticide Programs

Enclosure

# QUINCLORAC 75DF SP Herbicide

ACTI\	/E	INGF	RED	IEN	T:
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Quinclorac: 3,7-dichloro-8-quinolinecarboxylic acid	75.0 %
OTHER INGREDIENTS	25.0 %
TOTAL:	100.0 %

# 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.

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. 42750-90

EPA Est. No. xxxxx-xx-xxx

NET CONTENTS: \_\_\_\_ LBS.

Manufactured For: Albaugh, LLC Ankeny, IA 50021

ACCEPTED

09/21/2018

Under the Federal Insecticide, Fungicide and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No. 42750-90

# 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. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove and wash contaminated clothing before reuse.

# PERSONAL PROTECTIVE EQUIPMENT (PPE)

Applicators and other handlers must wear:

- 1. Long-sleeved shirt and long pants
- 2. Waterproof gloves
- 3. Shoes plus socks

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 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. Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- 2. Remove clothing/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, to 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.

All applicable directions, restrictions and precautions must be followed. This labeling must be in the possession of the user at time of application.

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 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 (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.

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, and water, is:

- 1. Coveralls
- 2. Waterproof gloves
- 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, nurseries, or greenhouses.

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

#### PRODUCT INFORMATION

Quinclorac 75DF SP 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, multi-family dwellings, military and other institutions, parks, airports, road-sides, schools, picnic grounds, athletic fields, houses of worship, cemeteries, golf courses and sod farms.

Quinclorac 75DF SP 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.

# HERBICIDE RESISTANCE MANAGEMENT

# Herbicide Management Plan:

While weed resistance to Group 4 herbicides is infrequent, populations of resistant biotypes are known to exist. Weeds resistant to Group 4 herbicides may be effectively managed using herbicide(s) from a different group. Resistance management should be part of a diversified weed control strategy that integrates chemical, cultural, and mechanical (tillage) control tactics. Cultural control tactics include crop rotation, proper fertilizer placement, and optimum seeding rate/row spacing. Consult your local Albaugh representative, state cooperative extension service, professional consultants, or other qualified authority to determine appropriate actions if you suspect resistant weeds.

# **Chemical Control:**

- Start clean with tillage or an effective burndown herbicide program.
- DO NOT rely on a single herbicide site of action for weed control.
- Follow labeled application rate and weed growth stage specifications.

- The use of preemergence herbicides that provide soil residual control of broadleaf and grass weeds is recommended to reduce early season weed competition and allow for timely postemergence herbicide applications.
- Avoid application of herbicides with the same site of action more than twice a season.
- Use tank mixes and sequential applications with other herbicides possessing different sites of action that are also effective on the target weeds.

Suspected Herbicide-Resistant Weeds may be Identified by these Indicators:

- Failure to control a weed species normally controlled by the herbicide at the dose applied, especially
  if control is achieved on adjacent weeds;
- A spreading patch of non-controlled plants of a particular weed species; and
- Surviving plants mixed with controlled individuals of the same species.

Best Management Practices for Resistance Management/Scouting and Containment

- Scout areas prior to application to identify the weed species present and their growth stage to determine if the intended application will be effective.
- Scout areas after herbicide application to identify areas where weed control was ineffective.
- Control weed escapes with herbicides possessing a different site of action or use a mechanical control measure. Weed escapes should not be allowed to reproduce by seed or to proliferate vegetatively.
- Contact your QUINCLORAC 75DF SP supplier and/or your local Albaugh representative to report weed escapes.
- To the extent possible DO NOT allow weed escapes to produce seeds, roots or tubers. Manage weed seeds at harvest and post-harvest to prevent a buildup of the weed seedbank.
- Clean equipment before moving to a different area to avoid spread of resistant weeds.

#### APPLICATION INFORMATION

Apply Quinclorac 75DF SP herbicide to actively growing weeds as postemergence ground broadcast or spot sprays using the rate, turf species and growth stage indicated in Tables 1, 2 and 3. Do not exceed the application rate listed. Follow restrictions listed under the Restrictions and Limitations section.

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 mowing 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.

For best results, weeds should not be under stress from lack of water, excessive water, low fertility, mowing shock, excessive hot or cold temperatures, or injury from other herbicide applications.

Spot Applications: For Use in New York By Spot Treatment Only. This product is not for sale, distribution, or use in Nassau and Suffolk counties in New York State.

Spot treatment: Spray individual weeds only. Adjust the sprayer to coarse spray to minimize wind drift. Apply to the center of the weed and spray to lightly cover. See Table 5 for spot spray mix instructions.

Postemergence spot applications may be made to susceptible weeds in turfgrass that is tolerant to Quinclorac 75DF SP herbicide (see Tables 1 and 2). Apply 0.367 ounces of Quinclorac 75DF SP herbicide per 1,000 square feet of treated area (equivalent to 0.75 pound of quinclorac per acre). Spray coverage should be uniform and complete.

#### Mowing Information:

Do not mow 2 days before or after applying Quinclorac 75DF SP herbicide to maximize weed control and

minimize potential turf injury. Clippings from the first three mowings should be left on the treated area.

# Irrigation and Rainfall:

If soil moisture is not sufficient prior to Quinclorac 75DF SP 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, irrigate with at least one-half inch of water.

#### **Extended Grass Control:**

To extend grass control Quinclorac 75DF SP herbicide can be tank-mixed with pendimethalin-containing herbicides to provide residual control of annual grasses. Consult the respective tank-mix labels for additional weeds controlled. It is the pesticide user's responsibility to ensure that all products in the listed mixtures are registered for the intended use. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

# Seeding/Overseeding/Sprigging:

The use of Quinclorac 75DF SP 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 Table 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 postemergence applications. Do not include additives when tank mixing with EC (Emulsifiable Concentrate) products as this may cause phytotoxicity. Consult your local Albaugh, LLC 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 phytotoxicity or less than optimal efficacy.

# Methylated Seed Oil Recommended:

The methylated seed oil used as the adjuvant with Quinclorac 75DF SP herbicide must meet all the following criteria:

- be nonphytotoxic,
- contain only EPA-exempt ingredients,
- 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

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 75DF SP herbicide Alone

When using Quinclorac 75DF SP herbicide alone, either premix (1 part product + 2 parts water) or slowly add Quinclorac 75DF SP herbicide to the partially filled tank while agitating until completely dispersed. Fill the remainder of the tank with water.

# 3. Quinclorac 75DF SP herbicide tank mixes

#### a. Wettable Powder Formulations

- 1. When using Quinclorac 75DF SP herbicide with a wettable powder formulation, add Quinclorac 75DF SP herbicide to the partially filled tank while agitating.
- 2. When Quinclorac 75DF SP 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

- 1. When using Quinclorac 75DF SP herbicide with a flowable formulation, add Quinclorac 75DF SP herbicide to the partially-filled tank while agitating.
- 2. When Quinclorac 75DF SP 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 75DF SP herbicide with an emulsifiable concentrate formulation, add Quinclorac 75DF SP herbicide to the partially-filled tank while agitating.
- 2. When Quinclorac 75DF SP 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 75DF SP herbicide with a dry flowable formulation, add Quinclorac 75DF SP herbicide to the partially-filled tank while agitating.
- 2. When Quinclorac 75DF SP 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:

Begin with a clean spray tank. Fill the spray tank 1/2 full with clean water and add the required amount of Quinclorac 75DF SP 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 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 75DF SP herbicide to half filled tank while agitating then add the fertilizer product. Complete filling spray tank to desired level.

# SPRAYING INSTRUCTIONS

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.). Low pressure (e.g., 20-40 psi) sprayers are recommended.

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 directed.

#### SPRAY DRIFT MANAGEMENT

Avoiding spray drift at the application site is the responsibility of the applicator. The interaction of many equipment-and-weather-related factors determines the potential for spray drift. The applicator and the grower are responsible for considering all these factors when making decisions.

Use a standard herbicide boom sprayer that provides uniform and accurate application. For optimum spray distribution and thorough coverage, use flat-fan nozzles.

# MANDATORY SPRAY DRIFT RESTRICTIONS

- DO NOT apply by air.
- Apply as a medium or coarser spray (ASABE standard S-572.1).
- DO NOT apply when conditions favor drift from target area.
- DO NOT release spray at a height greater than 30 inches above the ground.
- DO NOT apply when wind speeds are greater than 10 mph at the application site.
- DO NOT apply when conditions favor drift from target area.
- Quinclorac 75DF SP herbicide must be applied as a medium or coarser spray droplet size, as according to ASABE standard S-572.1.

# DRIFT REDUCTION ADVISORY INFORMATION

# IMPORTANCE OF DROPLET SIZE

The most effective way to reduce drift potential is to apply large droplets. The best drift management strategy is to apply the largest droplets that provide sufficient coverage and control. Applying larger droplets reduces drift potential, but will not prevent drift if applications are made improperly, or under unfavorable environmental conditions.

# CONTROLLING DROPLET SIZE

- Volume Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets.
- Pressure: Do not exceed the nozzle manufacturer's recommended pressures. For many nozzle types lower pressure produces larger droplets. When higher flow rates are needed, use higher flow rate nozzles instead of increasing pressure.
- Number of Nozzles: Use the minimum number of nozzles that provide uniform coverage.
- Nozzle Type: Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles.

# APPLICATION HEIGHT

Making applications at the lowest height that is safe reduces exposure of droplets to evaporation and wind.

# WIND

Drift potential is lowest between winds speeds of 2-10 mph. However, many factors, including droplet size and equipment type determine drift potential at any given speed. Application should be avoided below 2 mph due to variable wind direction and high inversion potential.

# TEMPERATURE AND HUMIDITY

When making applications in low relative humidity, set up equipment to produce larger droplets to compensate for evaporation. Droplet evaporation is most severe when conditions are both hot and dry.

#### SENSITIVE AREAS

The pesticide should only be applied when the potential for drift to adjacent sensitive areas (e.g. bodies of water, known habitat for threatened or endangered species, non-target crops) is minimal (e.g. when wind is blowing away from the sensitive areas).

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 recommended 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 75DF SP 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 jar 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 resusupended 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.

# RESTRICTIONS AND LIMITATIONS

- DO NOT apply more than 1 pound of Quinclorac 75DF SP herbicide per acre or 0.367 ounce per 1,000 square feet per application (equivalent to 0.75 pound quinclorac per acre).
- DO NOT apply more than 2 pounds of Quinclorac 75DF SP herbicide per acre or 0.73 ounces per 1,000 square feet in one year (equivalent to 1.5 pounds quinclorac per acre).
- 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, colonial and seaside bentgrass 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 plant eggplants or tobacco within 12 months in areas treated with this product.
- DO NOT plant tomatoes or carrots within 24 months in areas treated with this product.
- DO NOT apply prior to and within 2 weeks after seeding seashore paspalum.
- 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.
- DO NOT apply when wind speeds are greater than 10 mph at the application site as drift may cause damage or death of non-target area vegetation.
- DO NOT apply when conditions favor drift from target area.
- DO NOT allow mist and spray to come in contact with 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 apply through any type of irrigation system.
- DO NOT apply in New York State except by spot treatment only. This product is not for sale, distribution, or use in Nassau and Suffolk counties in New York State.

# **TURFGRASS TANK-MIXES**

It is the pesticide user's responsibility to ensure that all products in the listed mixtures are registered for the intended use. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture. To increase spectrum of control of broadleaf weed species, a tank mix with 2,4-D, triclopyr, MCPA, MCPP, Dicamba, or other broadleaf herbicide can be used. For extended residual control, apply Quinclorac 75DF SP herbicide with pendimethalin herbicides. For sedge control, apply Quinclorac 75DF SP herbicide with imazaguin, sodium bentazon, or MSMA herbicides.

Combinations with MSMA will aid in control of certain grassy weeds such as bahiagrass or kikuyu grass. Consult tolerant turfgrass species on all labels. Separate applications must 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 75DF SP herbicide with other pesticides (fungicides, herbicides, insecticides, or miticides), additives, or fertilizers.

Before tank-mixing, a simple jar test is recommended to ensure 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 75DF SP herbicide and follow those that are most restrictive.

Table 1. Turf Tolerance (Established)

Highly Tolerant	Moderately Tolerant	Susceptible
Bermudagrass, Common <sup>1</sup>	Bentgrass, Creeping <sup>1</sup>	Bahiagrass
Bluegrass, Kentucky	Bermudagrass, Hybrid <sup>1</sup>	Bentgrass, Seaside
Bluegrass, Annual	Bluegrass, Rough (Poa trivialis)	Bentgrass, Colonial
Buffalograss	Fescue, Chewing's	Centipedegrass
Fescue, Tall	Fescue, Fine <sup>2</sup>	Dichondra
Ryegrass, Annual	Fescue, Hard	St. Augustinegrass
Ryegrass, Perennial	Fescue, Red	Carpetgrass
Zoysiagrass	Paspalum, seashore	

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

<sup>2</sup>Apply Quinclorac 75DF SP herbicide to fine fescue only when it is part of a blend.

RESTRICTION: Do not use on golf course greens and collars.

Table 2. Quinclorac 75DF SP Application to Established Creeping Bentgrass

Turfgrass Species	Application Rate/Timing	Additive Rate
Bentgrass, Creeping <sup>1</sup>	Quinclorac 75DF SP herbicide must be applied in 2 - 3 split applications at 0.162 to 0.245 ounces per 1,000 sq. ft. (equivalent to 0.33 - 0.5 pound quinclorac per acre).  Do not exceed a total of 0.73 ounce of product per 1,000 sq. ft. per year (equivalent to 1.5 pound quinclorac per acre).	Use methylated seed oil at 0.55 fluid ounces per 1,000 sq. ft. (1.5 pints per acre)
	Make sequential application(s) at least 21 days apart.	

<sup>&</sup>lt;sup>1</sup> Yellowing that occurs on these species can be reduced by the addition of chelated iron or sprayable soluble nitrogen fertilizer (See Application Information, Additives)

RESTRICTION: Do not use on golf course greens and collars.

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

Weed Species		Quinclorac 75DF SP Rate	Additive Rate	
Grasses Controlled				
Common Name	Scientific Name	Broadcast Applications:	Apply:	
Barnyard grass Crabgrass, Large <sup>1,4</sup> Crabgrass, Smooth <sup>1,4</sup> Foxtails, Giant <sup>1</sup> Foxtail, Green <sup>1</sup> Foxtail, Yellow <sup>1</sup> Kikuyugrass <sup>2,3</sup> Signalgrass, Broadleaf <sup>1</sup> Torpedograss <sup>3</sup>	Echinochloa crusgalli Digitaria sanguinalis Digitaria ischaemum Setaria faberi Setaria viridis Setaria glauca Penniseturn clandestinum Brachiaria platyphylla Panicum repens	1.0 pound of product per acre or 0.367 ounce per 1,000 square feet.	1.5 pints per acre (0.55 fluid ounce per 1,000 square feet) methylated seed oil.	
Broadleaf Weeds Contro	Broadleaf Weeds Controlled			
Common Name	Scientific Name	Spot Applications:		
Bindweed, Field Clover, Hop Clover, Red Clover, White	Convolvulus arvensis Trifolium aureum Pollich Trifolium pratense Trifolium repens	Apply 0. 0.367 ounce of Quinclorac 75DF SP per 1,000 square feet of treated area.		
Dandelion, Common <sup>2</sup> Daisy,English <sup>2, 5</sup> Dollarweed Geranium, Carolina Medic, Black Morningglory spp. Speedwell, Common Speedwell, Slender Speedwell, Thymeleaf	Taraxacum officinale Bellis perenne Hydrocotyle umbellata Geranium carolinianum Medicago lupulina Ipomea sp. Veronica officinalis Veronica serpyllifolia	Refer to footnotes in Tables 2 and 3 for specific turfgrass or weed instructions.		
Violet, Wild	Viola sp.			

<sup>&</sup>lt;sup>1</sup>Under certain conditions applications of Quinclorac 75DF SP herbicide made to annual grasses at 2 - 4 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 75DF SP herbicide + methylated seed oil is applied either before second tiller or as weed grasses mature.

RESTRICTION: <sup>5</sup>NOT FOR USE to control this weed in California

Table 4. Seeding/Overseeding/Sprigging Timing Chart<sup>1</sup>

Variety	Before seeding <sup>2</sup>	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 <sup>3</sup>	OK	OK	OK	OK	OK
Creeping Bentgrass	OK	NO	NO	NO	OK
Fine Fescue in blend	OK	NO	NO	NO	OK
Hybrid Bermuda <sup>3</sup>	OK	OK	OK	OK	OK
Kentucky Bluegrass	OK	NO	NO	NO	OK
Perennial Ryegrass	OK	OK	NO	NO	OK
Seashore paspalum <sup>3,4</sup>	NO	NO	NO	OK	OK
Tall Fescue	OK	OK	OK	OK	OK
Zoysiagrass <sup>3</sup>	OK	OK	OK	OK	OK

<sup>&</sup>lt;sup>1</sup> RESTRICTION: No adjuvant or additive should be used when Quinclorac 75DF SP herbicide applications are made on newly emerged turf seedlings until 28 days after emergence; with the exception of seashore paspalum, a Quinclorac 75DF SP application rate of 0.367 oz/1000 sq ft (0.75 lb ai/A) can be made to all other turfgrass species in Table 4.

Table 5 Spot Spraying with Quinclorac 75DF SP

Spray Mix Volume <sup>1</sup> (gallons)	Quinclorac 75DF SP Product in Mix (ounces of product)	MSO Adjuvant in Mix (fluid ounces)
1	0.367	0.55
2	0.73	1.1
3	1.1	1.65

<sup>&</sup>lt;sup>1</sup>Apply at the rate of 1 gallon per 1,000 square feet

NOTES: For consistent results, make application to newly germinated 1- to 2- leaf crabgrass, to 1-tiller crabgrass and when crabgrass has matured to 5 tillers or greater.\*

\*Under certain conditions, applications of Quinclorac 75DF SP made to annual grasses 2 to 4 tiller may not provide complete control. A sequential application will be required for grass control in these situations.

<sup>&</sup>lt;sup>2</sup>Tank mix partner or sequential application required.

<sup>&</sup>lt;sup>3</sup>Make 3 sequential applications of 0.245 ounces of Quinclorac 75DF SP herbicide per 1,000 square feet at 14 - 21 day intervals.

<sup>&</sup>lt;sup>4</sup>Biotypes of large and smooth crabgrass in California have shown varied response to Quinclorac 75DF SP herbicide. If control failure occurs following the application of a full or split application rates do not reapply Quinclorac 75DF SP herbicide, and change to a herbicide with a different mode of action

<sup>&</sup>lt;sup>2</sup> Quinclorac 75DF SP herbicide can be applied 7 days or greater prior to seeding.

<sup>&</sup>lt;sup>3</sup> Quinclorac 75DF SP can be used any time prior to, at, or after sprigging as indicated by turfgrass species in Table 4.

 $<sup>^4</sup>$  0.18 oz to 0.367 oz/1000 sq ft (0.37 to 0.75 lb ai/A) application can be made at times indicated in Table 4.

Time application of Quinclorac 75DF SP herbicide around the seeding operations using the above chart as a reference point.

#### STORAGE AND DISPOSAL

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

PESTICIDE STORAGE: Store in a cool, dry, and well-ventilated areas. Do not store under wet conditions.

PESTICIDE DISPOSAL: Wastes resulting from the use of this product must be disposed of on-site or at an approved waste disposal facility.

CONTAINER HANDLING: Non-refillable container. Do not reuse or refill this container. Offer for recycling, if available. Triple rinse or pressure rinse container (or equivalent) promptly after emptying.

Triple rinse non-refillable ≤ 50 pounds as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ 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.

Triple rinse non-refillable > 50 pounds as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ 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. 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.

# 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, LLC or the Seller. All such risks shall be assumed by the Buyer. Albaugh, LLC 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.

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