

IKE'S
FARM • HOME • GARDEN

QUINCLORAC GROUP 4 HERBICIDE

CRABGRASS & WEED KILLER™

ACTIVE INGREDIENT:	WT. BY %
Dimethylamine salt of quinclorac; 3,7-dichloro-8-quinolinecarboxylic acid	18.92%
OTHER INGREDIENTS:	81.08%
TOTAL:	<u>100.00%</u>

Equivalent to: 1.50 lbs. quinclorac; 3,7-dichloro-8-quinolinecarboxylic acid equivalent 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.)

EPA Reg. No. 98985-3

EPA Est. No. 86869-NC-001

SEE LABEL BOOKLET FOR COMPLETE FIRST AID, PRECAUTIONARY STATEMENTS, DIRECTIONS FOR USE, AND STORAGE AND DISPOSAL.

**Manufactured For: Ike's, LLC, P.O. Box 250,
10025 Hwy. 264 Alternate, Middlesex, NC 27557**

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 OR CLOTHING:

- Take off contaminated clothing.
- Rinse skin immediately with plenty of water for 15 to 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 to 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.

(continued)

FIRST AID (cont.)

HOTLINE NUMBERS

Have a product container or label with you when calling a poison control center or doctor, or going for treatment. For 24-hour medical emergency assistance (human or animal), call **1-800-222-1222**. For chemical emergency assistance (spill, leak, fire, or accident), call ChemTrec at **1-800-424-9300**.

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION

Harmful if swallowed. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- 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.

USER SAFETY RECOMMENDATIONS

Users should:

- 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.

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.

PHYSICAL-CHEMICAL HAZARDS

Do not mix or allow coming in contact with oxidizing agent. Hazardous chemical reaction may occur.

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.

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 use 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 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.

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AGRICULTURAL USE REQUIREMENTS (cont.)

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:

- Coveralls
- Chemical-resistant gloves, made of butyl rubber ≥ 14 mils, natural rubber ≥ 14 mils, neoprene rubber ≥ 14 mils, or nitrile rubber ≥ 14 mils
- 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

Crabgrass & Weed Killer may be applied post-emergence to residential and non-residential turfgrasses (refer to Table 1. Turf Resistance Established) for the control of many broadleaf and grass weeds. Sites include:

- Grounds or lawns around residential and commercial establishments
- Multi-family dwellings
- Military institutions
- Parks
- Airports
- Roadsides
- Schools
- Picnic grounds
- Athletic fields
- Houses of worship
- Cemeteries
- Golf courses
- Sod farms

Mode of Action

Crabgrass & Weed Killer is an auxin agonist and is classified as a quinoline carboxylic acid. It 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 resistance and susceptible weed species.

Resistance Management

Quinclorac, the active ingredient in this product, is a Group 4 herbicide. Some pests are known to develop resistance to herbicides that have been used repeatedly. Herbicide resistance is defined as the inherited ability of a plant to survive and reproduce following exposure to a dose of herbicide normally lethal to the wild type. In a plant, resistance may be naturally occurring or induced by such techniques as genetic engineering or selection of variants produced by tissue culture or mutagenesis. Any weed population may contain or develop plants that are naturally resistant to **Crabgrass & Weed Killer** and other Group 4 herbicides. Weed species with acquired resistance to Group 4 herbicides may eventually dominate the weed population if Group 4 herbicides are

used repeatedly in the same field or in successive years as the primary method of control for targeted species. This may result in partial or total loss of control of those species by **Crabgrass & Weed Killer** or other Group 4 herbicides.

To delay herbicide resistance, consider the below best practices for resistance management:

- Plant into weed-free fields and keep fields as weed-free as possible.
- To the extent possible, use a diversified approach toward weed management. Whenever possible, incorporate multiple weed-control practices such as mechanical cultivation, biological management practices, and crop rotation.
- Fields with difficult-to-control weeds should be rotated to crops that allow the use of herbicides with alternative mechanisms of action or different management practices.
- 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 seed-bank.
- Prevent field-to-field and within-field movement of weed seed or vegetative propagules. Thoroughly clean plant residues from equipment before leaving fields.

- Prevent an influx of weeds into the field by managing field borders.
- Identify weeds present in the field through scouting and field history and understand their biology. The weed-control program should consider all of the weeds present.
- Difficult-to-control weeds may require sequential applications of herbicides with differing mechanisms of action.
- Apply this herbicide at the correct timing and rate needed to control the most difficult weed in the field.
- Use a broad-spectrum soil-applied herbicide with a mechanism of action that differs from this product as a foundation in a weed-control program. Do not use more than 2 applications of this or any other herbicide with the same mechanism of action within a single growing season unless mixed with an herbicide with another mechanism of action with an overlapping spectrum for the difficult-to-control weeds.
- If resistance is suspected, treat weed escapes with an herbicide with a different MOA or use non-chemical methods to remove escapes.
- Monitor treated weed populations for loss of field efficacy.
- Scout field(s) before and after application.
- Report lack of performance to registrant or their representative.

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.

Contact your local sales representative, extension agent, or certified crop advisors to find out if suspected resistant weeds to this MOA have been found in your region. If resistant biotypes of target weeds have been reported, use the application rates of this product specified for your local conditions. Tank mix products so that there are multiple effective mechanisms of action for each target weed.

APPLICATION INFORMATION

Apply **Crabgrass & Weed Killer** to actively growing weeds as post-emergence broadcast or spot sprays using the turf species, rate and growth stages indicated in Tables 1, 2, and 3.

DO NOT exceed the labeled application rate or fail to comply with use restrictions listed in **CRABGRASS & WEED KILLER USE RESTRICTIONS**.

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.

To achieve consistent weed control, use methylated seed oil. 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. Not all chelated iron or sprayable nitrogen fertilizers are compatible with **Crabgrass & Weed Killer**. Always perform a compatibility test to ensure proper mixing. See **COMPATIBILITY TEST FOR MIX COMPONENTS** section of label for directions.

FOR ALL TANK MIXTURES: It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

Spot Applications:

Post-emergence spot applications may be made to susceptible weeds in turfgrass that is resistant to **Crabgrass & Weed Killer** (see Tables 1 and 2). Apply 1.45 fluid ounces of **Crabgrass & Weed Killer** per 1,000 square feet (0.75 lb. ae/A) of treated area. Spray coverage should be uniform and complete. See Table 5 for spot spray mix instructions.

- **FOR USE IN NEW YORK AS SPOT TREATMENT ONLY** - 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.

Mowing Information:

DO NOT mow 2 days before or after applying **Crabgrass & Weed Killer** to maximize weed control and minimize potential turf injury. Clippings from the first 3 mowings after application should be left on the treated area.

Irrigation and Rainfall:

If soil moisture is not sufficient prior to **Crabgrass & Weed Killer** 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, irrigation of at least 1/2 inch is desirable.

Extended Grass Control:

To extend grass control, **Crabgrass & Weed Killer** can be tank mixed with pendimethalin to provide residual control of annual grasses. Consult the respective tank mix labels for additional weeds controlled.

Seeding/Overseeding/Sprigging:

The use of **Crabgrass & Weed Killer** 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 resistant or moderately resistant 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 preferred adjuvant for post-emergence applications. However, if an MSO is not available in your region, the use of a crop oil concentrate or other high-quality surfactant must be used in the spray tank at the time of application. (Refer to actual product label for use rates and directions.)

Additives should not be used when tank mixing with Emulsifiable Concentrate (EC) products as turf phytotoxicity may occur.

The methylated seed oil or crop oil concentrate used as the adjuvant with **Crabgrass & Weed Killer** must meet all the following criteria:

- Nonphytotoxic
- Contain only EPA-exempt ingredients
- Provide good mixing quality in the jar test
- Successful in local experience

The exact composition of suitable products will vary; however, any methylated seed oil or crop oil concentrate used should contain emulsifiers to provide good mixing quality.

When an adjuvant (or a specific adjuvant product, such as a drift control agent) is to be used with this product, the use of a Chemical Producers and Distributors Association (CPDA) certified adjuvant is recommended.

Consult your local Ike's, LLC representative or distributor for instructions for your area.

MIXING INSTRUCTIONS FOR CRABGRASS & WEED KILLER

1. Water: Begin by agitating a thoroughly clean sprayer tank 3/4 full of clean water.

2. Agitation: Maintain constant agitation throughout mixing and application.
3. Inductor: If an inductor is used, rinse it thoroughly after each component has been added.
4. Products in PVA bags: Place any product contained in water-soluble PVA bags into the mixing tank. Wait until all water-soluble PVA bags have fully dissolved and the product is evenly mixed in the spray tank before continuing.
5. Water-dispersible products (dry flowables, wettable powders, suspension concentrates, or suspo-emulsions).
6. Water-soluble products (such as **Crabgrass & Weed Killer**).
7. Emulsifiable concentrates (such as methylated seed oil or crop oil concentrate).
8. Water-soluble additives (such as chelated iron or soluble nitrogen fertilizer when applicable; not all chelated iron or sprayable nitrogen fertilizers are compatible with **Crabgrass & Weed Killer**. Always perform a compatibility test to ensure proper mixing. See **COMPATIBILITY TEST FOR MIX COMPONENTS** section of label for directions).
9. Remaining quantity of water.

Maintain constant agitation during application.

Backpack Sprayer:

Begin with a clean spray tank. Fill the spray tank 1/2 full with clean water and add the required amount of **Crabgrass & Weed Killer** to the sprayer. Cap sprayer and agitate to ensure mixing. Uncap sprayer and add appropriate amount of methylated seed oil. Cap sprayer and agitate once again. Uncap sprayer and finish filling tank to desired level. During application, it is desirable to agitate the mixture on occasion to ensure mixing.

If the mixture is allowed to settle for any period of time, thorough agitation is essential before spraying is resumed.

SPRAYING INSTRUCTIONS FOR CRABGRASS & WEED KILLER

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 sprayers at 20 to 40 PSI. 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 for 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 labeled for use. Avoid application when winds may cause drift.

Clean spray 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 labeled 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 (dry flowables, wettable powders, suspension concentrates, or suspo-emulsions) - Cap the jar and invert 10 cycles.
4. Water-soluble products (**Crabgrass & Weed Killer**) - 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 resuspended 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.

CRABGRASS & WEED KILLER USE PRECAUTIONS

- 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.

- It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

CRABGRASS & WEED KILLER USE RESTRICTIONS

- DO NOT apply more than 128 fluid ounces of **Crabgrass & Weed Killer** per acre (or 2.9 fl. oz. per 1,000 sq. ft.) in 1 year (1.5 lbs. ae per acre per year).
- DO NOT exceed the maximum single application rate of 64 fluid ounces of product per acre (1.45 fl. oz. of product per 1,000 sq. ft.) or 0.75 lb. ae per acre.
- DO NOT use clippings as mulch or compost around flowers, ornamentals, trees, or in vegetable gardens.
- DO NOT plant eggplants or tobacco within 12 months to areas treated with **Crabgrass & Weed Killer**.
- DO NOT plant tomatoes or carrots within 24 months to areas treated with **Crabgrass & Weed Killer**.
- DO NOT apply when wind speeds are greater than 10 mph at the application site.

- Apply as a medium or coarser spray (ASABE standard S-572.1).
- DO NOT release spray at a height greater than 30 inches above the ground.
- DO NOT discard rinsate on or near desirable plants.
- DO NOT apply by air or through any type of irrigation system.
- DO NOT use to formulate or reformulate any other pesticide product that is not registered by EPA.
- DO NOT apply to golf course collars or greens.
- DO NOT make applications of **Crabgrass & Weed Killer** to drought-stressed turfgrass and/or drought-stressed weeds.
- DO NOT apply to fine fescue unless it is part of a seed blend.
- DO NOT make application to areas where desirable clovers are present.
- 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 apply within 4 weeks after seedling emergence of Kentucky bluegrass, creeping bentgrass, fine fescue blends, and perennial ryegrass.
- DO NOT apply **Crabgrass & Weed Killer** prior to and within 2 weeks after seeding seashore paspalum.
- **DO NOT apply in New York State, except by spot treatment only.**
- DO NOT use treated cranberry/rice fields for the aquaculture of edible fish and crustaceans (crayfish).

TURFGRASS TANK MIXES

It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

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, or other broadleaf herbicides may be used. For extended residual control, apply **Crabgrass & Weed Killer** with pendimethalin.

For sedge control, applications of **Crabgrass & Weed Killer** with bentazon, imazaquin, or MSMA may be made. Combinations with MSMA will aid in control of certain grassy weeds, such as Bahiagrass or kikuyugrass. Consult labels for turfgrass resistance when tank mixing. Separate applications should be made if all target weeds are not at the correct growth stage for treatment at the same time.

Physical incompatibility, reduced weed control, or turf injury may result from mixing **Crabgrass & Weed Killer** with other pesticides (fungicides, herbicides, insecticides, or miticides), additives, or fertilizers.

Before tank mixing, a simple jar test is required to ensure compatibility of herbicides or other pesticides and/or additives.

Table 1. Turf Resistance (Established)

Highly Resistant	Moderately Resistant	Susceptible
Bermudagrass, common ¹ Bluegrass, annual Bluegrass, Kentucky Buffalograss Fescue, tall Ryegrass, annual Ryegrass, perennial Zoysiagrass	Bentgrass, creeping ¹ Bermudagrass, hybrid ¹ Bluegrass, rough <i>(Poa trivialis)</i> Fescue, Chewing's Fescue, fine ² Fescue, hard Fescue, red Paspalum, seashore	Bahiagrass Bentgrass, colonial Bentgrass, seaside Centipedegrass Dichondra St. Augustinegrass

¹Yellowing that occurs on these species can be reduced by the addition of chelated iron or sprayable soluble nitrogen fertilizer (see **Application Information** and **Addition of Adjuvants**).

²Apply **Crabgrass & Weed Killer** to fine fescue only when it is part of a blend. DO NOT use on golf course greens and collars.

For Seeding/Overseeding/Sprigging application information, consult Table 4.

Table 2. Crabgrass & Weed Killer Application to Establish Creeping Bentgrass

Turfgrass Species	Application Rate/Timing	Additive Rate
Bentgrass, creeping ^{1,2}	<p>Crabgrass & Weed Killer must be applied in 2 to 3 split applications at 0.5 to 1.0 fl. oz. per 1,000 sq. ft. (0.25 to 0.51 lb. ae/A) (not to exceed 128 fl. oz. of product per acre [2.9 fl. oz. of product per 1,000 sq. ft.] per year or 1.5 lbs. ae/A/year).</p> <p>Time sequential application(s) 14 to 21 days apart.</p>	Use methylated seed oil at 0.55 fl. oz. 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** and **Addition of Adjuvants**).

²Not for use at this rate range in California.
 DO NOT use on golf course greens and collars.
 For Seeding/Overseeding/Sprigging application information, consult Table 4.

(continued)

Table 2. Crabgrass & Weed Killer Application to Establish Creeping Bentgrass (cont.)

Turfgrass Species	Application Rate/Timing	Additive Rate
Bentgrass, creeping ^{1,3}	<p>Crabgrass & Weed Killer must be applied in 2 to 3 split applications at 0.65 to 1.0 fl. oz. per 1,000 sq. ft. (0.33 to 0.51 lb. ae/A) (not to exceed 128 fl. oz. of product per acre [2.9 fl. oz. of product per 1,000 sq. ft.] per year or 1.5 lbs. ae/A/year). Time sequential application(s) 14 to 21 days apart.</p>	Use methylated seed oil at 0.55 fl. oz. 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** and **Addition of Adjuvants**).

³This rate range for use only in California.

DO NOT use on golf course greens and collars.

For Seeding/Overseeding/Sprigging application information, consult Table 4.

Table 3. Application Rates and Timing for Post-Emergence Weed Control in Turf

Weed Species	
Grasses Controlled	
Common Name	Scientific Name
Barnyardgrass	<i>Echinochloa crusgalli</i>
Crabgrass, large ^{1,4}	<i>Digitaria sanguinalis</i>
Crabgrass, smooth ^{1,4}	<i>Digitaria ischaemum</i>
Foxtail, giant ¹	<i>Setaria faberi</i>
Foxtail, green ¹	<i>Setaria viridis</i>
Foxtail, yellow ¹	<i>Setaria pumila</i>
Kikuyugrass ^{2,3}	<i>Pennisetum clandestinum</i>
Signalgrass, broadleaf	<i>Brachiaria platyphylla</i>
Torpedograss ³	<i>Panicum repens</i>

(continued)

Table 3. Application Rates and Timing for Post-Emergence Weed Control in Turf (cont.)

Crabgrass & Weed Killer Rate
Broadcast Applications 64 fl. oz. of product per acre or 1.45 fl. oz. per 1,000 sq. ft. (0.75 lb. ae/A).
Spot Applications Apply 1.45 fl. oz. of Crabgrass & Weed Killer per 1,000 sq. ft. (0.75 lb. ae/A) of treated area. Refer to footnotes in Tables 2 and 3 for specific turfgrass or weed instructions.
Additive Rate
Apply 1.5 pints per acre (0.55 fl. oz. per 1,000 sq. ft.) methylated seed oil.

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Table 3. Application Rates and Timing for Post-emergence Weed Control in Turf (cont.)

¹Under certain conditions, application of **Crabgrass & Weed Killer** made to annual grasses at 2 to 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 **Crabgrass & Weed Killer** + methylated seed oil are applied either before second tiller or as weed grasses mature.

²Tank mix partner or sequential application required.

³Make 2 sequential applications of 1.0 fl. oz. (0.51 lb. ae/A) of **Crabgrass & Weed Killer** per 1,000 sq. ft. and an additional sequential application up to 0.90 fl. oz. (0.46 lb. ae/A) of **Crabgrass & Weed Killer** per 1,000 sq. ft. at 14- to 21-day intervals.

⁴Biotypes of large and smooth crabgrass in California have shown varied response to **Crabgrass & Weed Killer**. If control failure occurs following a full or split application, DO NOT reapply **Crabgrass & Weed Killer**. Change to a herbicide with a different mode of action.

(continued)

Table 3. Application Rates and Timing for Post-Emergence Weed Control in Turf (cont.)

Weed Species	
Broadleaf Weeds Controlled	
Common Name	Scientific Name
Bindweed, field	<i>Convolvulus arvensis</i>
Clover, hop	<i>Trifolium aureum</i> Pollich
Clover, red	<i>Trifolium pratense</i>
Clover, white	<i>Trifolium repens</i>
Daisy, English ^{2,5}	<i>Bellis perenne</i>
Dandelion, common ²	<i>Taraxacum officinale</i>
Dollarweed	<i>Hydrocotyle Umbellata</i>
Geranium, Carolina	<i>Geranium carolinianum</i>
Medic, black	<i>Medicago lupulina</i>
Morningglory spp.	<i>Ipomoea</i> sp.
Speedwell, common	<i>Veronica officinalis</i>
Speedwell, slender	<i>Veronica filiformis</i>
Speedwell, thymeleaf	<i>Veronica serpyllifolia</i>
Violet, wild	<i>Viola</i> spp.

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Table 3. Application Rates and Timing for Post-emergence Weed Control in Turf (cont.)

Crabgrass & Weed Killer Rate
Broadcast Applications 64 fl. oz. of product per acre or 1.45 fl. oz. per 1,000 sq. ft. (0.75 lb. ae/A).
Spot Applications Apply 1.45 fl. oz. of Crabgrass & Weed Killer per 1,000 sq. ft. (0.75 lb. ae/A) of treated area. Refer to footnotes in Tables 2 and 3 for specific turfgrass or weed instructions.
Additive Rate
Apply 1.5 pints per acre (0.55 fl. oz. per 1,000 sq. ft.) methylated seed oil.
² Tank mix partner or sequential application required. ⁵ NOT FOR USE to control this weed in California.

Table 4. Seeding/Overseeding/Sprigging Timing Chart¹

Variety	Before seed-ing ²	At seed-ing	7 days after emer-gence	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 Bermudagrass ³ (for sprigging see footnote 3)	OK	OK	OK	OK	OK
Creeping bentgrass	OK	NO	NO	NO	OK
Fine fescues (in blend)	OK	NO	NO	NO	OK

(continued)

Table 4. Seeding/Overseeding/Sprigging Timing Chart¹ (cont.)

Variety	Before seed-ing ²	At seed-ing	7 days after emer-gence	14 days after emergence	28 days after emergence
Hybrid Bermudagrass ³ (for sprigging see footnote 3)	OK	OK	OK	OK	OK
Kentucky bluegrass	OK	NO	NO	NO	OK
Perennial ryegrass	OK	OK	NO	NO	OK
Seashore paspalum ^{3,4} (for sprigging see footnote 3)	NO	NO	NO	OK	OK
Tall fescue	OK	OK	OK	OK	OK
Zoysiagrass ³ (for sprigging see footnote 3)	OK	OK	OK	OK	OK

(continued)

Table 4. Seeding/Overseeding/Sprigging Timing Chart¹ (cont.)

¹**NOTE:** No adjuvant or additive should be used when **Crabgrass & Weed Killer** applications are made on newly emerged turf seedlings until 28 days after emergence; with the exception of seashore paspalum, a **Crabgrass & Weed Killer** application rate of 1.45 fl. oz./1,000 sq. ft. (0.75 lb. ae/A) can be made to all other turfgrass species above.

²**Crabgrass & Weed Killer** can be applied 7 days or greater prior to seeding.

³**Crabgrass & Weed Killer** can be used any time prior to, at or after sprigging as indicated by turfgrass species above.

⁴0.75 fl. oz. to 1.45 fl. oz./1,000 sq. ft. (0.37 to 0.75 lb. ae/A) application can be made at times indicated above.

Application of **Crabgrass & Weed Killer** should be timed around the seeding operations using the above chart as a reference point.

Table 5. Spot Spraying with Crabgrass & Weed Killer

Spray Mix Volume (gallons)	Crabgrass & Weed Killer Product in Mix (tablespoons)	MSO Adjuvant in Mix (tablespoons)
1	3	1.5
2	6	3.0
3	9	4.5

- Apply at the rate of 1 gallon per 1,000 sq. ft.

1 tablespoon = 0.5 fl. oz. (0.25 lb. ae/A) of **Crabgrass & Weed Killer** product.

NOTES: For consistent results, make **Crabgrass & Weed Killer** application to newly germinated, to 1 tiller crabgrass, and when crabgrass has matured to 5 tillers or greater. Under certain conditions, applications of **Crabgrass & Weed Killer** 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.

STORAGE AND DISPOSAL

DO NOT contaminate water, food, or feed by storage or disposal.

PESTICIDE STORAGE: Store in a dry well-ventilated area.

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: 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 reconditioning, if appropriate, or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures approved by State and local authorities.

Triple rinse containers small enough to shake (capacity equal to or less than 5 gallons) 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.

STORAGE AND DISPOSAL *(cont.)*

Triple rinse containers too large to shake (capacity greater than 5 gallons) 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 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 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.

CONDITION OF SALE AND LIMITATION OF WARRANTY AND LIABILITY

NOTICE: Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before buying or using this product. If the terms are not acceptable, return the product at once, unopened, and the purchase price will be refunded.

The Directions for Use of this product must be followed carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Ineffectiveness or other unintended consequences may result because of such factors as manner of use or application, weather, presence of other materials or other influencing factors in the use of the product, which are beyond the control of Ike's, LLC or Seller. To the extent consistent with applicable law, all such risks shall be assumed by Buyer and User, and Buyer and User agree to hold Ike's, LLC and Seller harmless for any claims relating to such factors. Ike's, LLC warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use, subject to the inherent risks referred to above, when used in accordance with directions under normal use conditions. This warranty does not extend to the use of this product contrary to label instructions, or under abnormal conditions or under conditions not

CONDITION OF SALE AND LIMITATION OF WARRANTY AND LIABILITY
(cont.)

reasonably foreseeable to or beyond the control of Seller or Ike's, LLC, and Buyer and User assume the risk of any such use. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, IKE'S, LLC MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS STATED ABOVE.

To the extent consistent with applicable law, neither Ike's, LLC nor Seller shall be liable for any incidental, consequential, or special damages resulting from the use or handling of this product. **TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF IKE'S, LLC AND SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT OR, AT THE ELECTION OF IKE'S, LLC OR SELLER, THE REPLACEMENT OF THE PRODUCT.**

(continued)

CONDITION OF SALE AND LIMITATION OF WARRANTY AND LIABILITY
(cont.)

Ike's, LLC and Seller offer this product, and Buyer and User accept it, subject to the foregoing Conditions of Sale and Limitation of Warranty and Liability, which may not be modified except by written agreement signed by a duly authorized representative of Ike's, LLC.

Crabgrass & Weed Killer is a trademark of Ike's, LLC.

All trademarks are the property of their respective owners.

IKE'S
FARM • HOME • GARDEN

QUINCLORAC GROUP 4 HERBICIDE

CRABGRASS & WEED KILLER™

ACTIVE INGREDIENT:	WT. BY %
Dimethylamine salt of quinclorac; 3,7-dichloro-8-quinolinecarboxylic acid	18.92%
OTHER INGREDIENTS:	81.08%
TOTAL:	100.00%

Equivalent to: 1.50 lbs. quinclorac; 3,7-dichloro-8-quinolinecarboxylic acid equivalent 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.)

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS
CAUTION. Harmful if swallowed.

EPA Reg. No. 98985-3

EPA Est. No. 86869-NC-001

**SEE LABEL BOOKLET FOR COMPLETE FIRST AID, PRECAUTIONARY STATEMENTS,
DIRECTIONS FOR USE, AND STORAGE AND DISPOSAL.**

**Manufactured For: Ike's, LLC, P.O. Box 250,
10025 Hwy. 264 Alternate, Middlesex, NC 27557**

OPEN HERE


STORAGE AND DISPOSAL

DO NOT contaminate water, food, or feed by storage or disposal. **PESTICIDE STORAGE:** Store in a dry well-ventilated area. **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:** 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 reconditioning, if appropriate, or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures approved by State and local authorities. Triple rinse containers small enough to shake (capacity equal to or less than 5 gallons) 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. Triple rinse containers too large to shake (capacity greater than 5 gallons) 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 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 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.

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 OR CLOTHING:** Take off contaminated clothing. Rinse skin immediately with plenty of water for 15 to 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 to 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. **HOTLINE NUMBERS:** Have a product container or label with you when calling a poison control center or doctor, or going for treatment. For 24-hour medical emergency assistance (human or animal), call **1-800-222-1222**. For chemical emergency assistance (spill, leak, fire, or accident), call ChemTrec at **1-800-424-9300**.