CLETHODIM |

GROUP



Active Ingredient: % B Clethodim: (E)-2-[1-[[(3-chloro-2-propenyl)-oxy]imino]propyl]-5-[2-(eth-	y Weight
ylthio)propyl]-3-hydroxy-2-cyclohexen-1-one	
Other Ingredients: Total:	
Contains petroleum distillates	

Contains 2.17 lbs. of active ingredient clethodim per gallon.

# **KEEP OUT OF REACH OF CHILDREN** CAUTION/PRECAUCION

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.) See label booklet for First Aid, Precautionary Statements, Directions for Use, and Storage and Disposal.

# Manufactured For:

JABCO, LLC 550 W. Pioneer Blvd. Suite 140 Mesquite, NV 89027

EPA Reg. No. 101458-4

EPA Est. No. 86564-CHN-001

**NET CONTENTS: 2.5 Gallons** 

	FIRST AID
IF IN EYES:	Hold eye open and rinse slowly and gently with water for 15-20 minutes.     Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.     Call a poison control center or doctor for treatment advice.
IF ON SKIN OR CLOTHING:	Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.
IF SWALLOWED:	Immediately call a poison control center or doctor.     DO NOT induce vomiting unless told to do so by a poison control center or doctor.     DO NOT give any liquid to the person.     DO NOT give anything by mouth to an unconscious person.
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 DUVCICIAN

NOTE TO PHYSICIAN

Contains petroleum distillates. Ingestion of this product or subsequent vomiting can result in aspiration of light hydrocarbon liquid, which can cause pneumonitis, If ingested, probable mucosal damage may contraindicate the use of gastric layage.

#### HOTLINE NUMBERS

Have the 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: 1-800-424-9300. For general information on this product. call 984-465-4800, or contact the National Pesticides Information Center (NPIC) at 1-800-858-7378, Monday through Friday, 8 AM to 12 PM PST, or at http://npic.orst.edu.

# PRECAUTIONARY STATEMENTS

# HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION

Causes moderate eye irritation. Harmful if swallowed. Avoid contact with eyes, skin, or clothing. 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:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves, including barrier laminate or Viton ≥14 mils
- · Shoes plus socks
- · Protective eyewear

# USER SAFETY REQUIREMENTS

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate, DO NOT reuse them, 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.

# **ENVIRONMENTAL HAZARDS**

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 apply where runoff is likely to occur. DO NOT apply where weather conditions favor drift from areas treated. DO NOT contaminate water when disposing of equipment washwater or rinsate.

The use of this product may pose a hazard to the federally designated endangered species of Solano Grass and Wild Rice. Use of this product is prohibited in the following areas where the species are known to exist:

- Solano Grass: Solano County, California The vernal lakes area bounded by the Union Pacific Railroad and Hastings Road to the north, Highway 113 to the east, Highway 12 to the south, and Travis Air Force Base to the west.
- . Wild Rice: Havs County, Texas.

# NON-TARGET ORGANISM ADVISORY

This product is toxic to plants and may adversely impact the forage and habitat of non-target organisms, including pollinators, in areas adjacent to the treated area. Protect the forage and habitat of non-target organisms by following label directions intended to minimize spray drift.

#### PHYSICAL AND CHEMICAL HAZARDS

Combustible. DO NOT use or store near heat or open flame.

# DIRECTIONS FOR USE

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.

**DO NOT** apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

READ THE ENTIRE LABEL. USE STRICTLY IN ACCORDANCE WITH PRECAUTIONARY STATEMENTS AND DIRECTIONS, AND WITH APPLICABLE STATE AND FEDERAL REGULATIONS.

#### 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 24 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, including plants, soil, or water, is:

- Coveralls
- Chemical-resistant gloves, including barrier laminate or Viton ≥14 mils
- · Shoes plus socks
- · Protective eyewear

#### NON-AGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forest, nurseries, or greenhouses.

Keep all unprotected persons out of operating areas, or vicinity where there may be drift. DO NOT enter treated areas without protective clothing until sprays have dried.

#### TANK MIXES

NOTICE: Tank mixing or use of this product with any other product which is not specifically and expressly authorized by the label shall be the exclusive risk of user, applicator and/or application advisor.

- 1. Geographic restrictions all products are not registered for use in all areas and rates may vary from one region of labeled use to another;
- 2. Crop rotation restrictions:
- 3. Applicator certification requirements;
- 4. Worker safety rules (e.g., protective clothing, reentry time, posting);
- 5. Soil type or soil characteristics (e.g., pH, OM);
- 6. Maximum dosage or number of applications per year:
- 7. Rain free period required; or
- 8. Application timing (e.g., pre-harvest interval).
- 9. **DO NOT** exceed the total yearly rates.

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.

Read and follow the entire label of each product to be used in the tank with this product.

# MANDATORY SPRAY DRIFT

- DO NOT release spray at a height greater than 10 feet above the vegetative canopy, unless a greater application height is necessary for pilot safety.
- Applicators are required to use a coarse or coarser droplet size (ASABE S572.1).
- The boom length must not exceed 65% of the wingspan for airplanes or 75% of the rotor blade diameter for helicopters.
- Applicators must use ½ swath displacement upwind at the downwind edge of the field.
- · Nozzles must be oriented so the spray is directed toward the back of the aircraft.
- DO NOT apply when wind speeds exceed 10 miles per hour at the application site.
- . DO NOT apply during temperature inversions.

# **Ground Boom Applications:**

**Aerial Applications:** 

- Apply with the nozzle height specified by the manufacturer, but no more than 3 feet above the ground or crop canopy. For all other ground applications, the nozzle
  must be no more than 3 feet from the target vegetation.
- For all applications, applicators are required to use a medium or coarser droplet size (ASABE \$572.1).
- **DO NOT** apply when wind speeds exceed 10 miles per hour at the application site.
- DO NOT apply during temperature inversions.

# SPRAY DRIFT ADVISORIES

THE APPLICATOR IS RESPONSIBLE FOR AVOIDING OFF-SITE SPRAY DRIFT. BE AWARE OF NEARBY NON-TARGET SITES AND ENVIRONMENTAL CONDITIONS.

# Importance of Droplet Size

An effective way to reduce spray drift is to apply large droplets. Use the largest droplets that provide target pest control. While applying larger droplets will reduce spray drift, the potential for drift will be greater if applications are made improperly or under unfavorable environmental conditions.

# Controlling Droplet Size - Ground Boom

- Volume Increasing the spray volume so that larger droplets are produced will reduce spray drift. Use the highest practical spray volume for the application. If a greater spray volume is needed, consider using a nozzle with a higher flow rate.
- Pressure Use the lowest spray pressure specified for the nozzle to produce the target spray volume and droplet size.
- . Spray Nozzle Use a spray nozzle that is designed for the intended application. Consider using a nozzles designed to reduce drift.

# Controlling Droplet Size - Aircraft

. Adjust Nozzles - Follow nozzle manufacturers directions for setting up nozzles. To reduce fine droplets, nozzles must be oriented parallel with the airflow in flight.

# Boom Height - Ground Boom

For ground equipment, the boom must remain level with the crop and have minimal bounce.

# Release Height - Aircraft

Higher release heights increase the potential for spray drift.

# **Shielded Sprayers**

Shielding the boom or individual nozzles can reduce spray drift. Consider using shielded sprayers. Verify that the shields are not interfering with the uniform deposition of the spray on the target area.

# Temperature and Humidity

When making applications in hot and dry conditions, use larger droplets to reduce effects of evaporation.

# Temperature Inversions

Drift potential is high during a temperature inversion. Temperature inversions are characterized by increasing temperature with altitude and are common on nights with limited cloud cover and light to no wind. The presence of an inversion can be indicated by ground fog or by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing. Avoid applications during temperature inversions.

#### Wind

Drift potential generally increases with wind speed. AVOID APPLICATIONS DURING GUSTY WIND CONDITIONS. Applicators need to be familiar with local wind patterns and terrain that could affect spray drift.

#### WEED RESISTANCE MANAGEMENT

For resistance management, Crop Protect Direct Clethodim 2EC is a Group 1 herbicide. Any weed population may contain or develop plants naturally resistant to Crop Protect Direct Clethodim 2EC and other Group 1 herbicides. The resistant biotypes may dominate the weed population if these herbicides are used repeatedly in the same field. Appropriate resistance-management strategies must be followed.

# To delay herbicide resistance:

- Rotate the use of Crop Protect Direct Clethodim 2EC or other Group 1 herbicides within a growing season sequence or among growing seasons with different
  herbicide groups that control the same weeds in a field.
- Use tank mixtures with herbicides from a different group such use is permitted; where information on resistance in target weed species is available, use the less
  resistance-prone partner at a rate that will control the target weed(s) equally as well as the more resistance-prone partner. Consult your local extension service or
  certified crop advisor if you are unsure as to which active ingredient is currently less prone to resistance.
- Adopt an integrated weed-management program for herbicide use that includes scouting and uses historical information related to herbicide use and crop rotation, and
  that considers tillage (or other mechanical control methods), cultural (e.g., higher crop seeding rates; precision fertilizer application method and timing to favor the crop
  and not the weeds), biological (weed-competitive crops or varieties) and other management practices.
- Scout before and after herbicide application to monitor weed populations for early signs of resistance development. Indicators of possible herbicide resistance include:

   (1) failure to control a weed species normally controlled by the herbicide at the dose applied, especially if control is achieved on adjacent weeds; (2) a spreading patch of non-controlled plants of a particular weed species; (3) surviving plants mixed with controlled individuals of the same species. If resistance is suspected, prevent weed seed production in the affected area by an alternative herbicide from a different group or by a mechanical method including hoeing or tillage. Prevent movement of resistant weed seeds to other fields by cleaning harvesting and tillage equipment when moving between fields, and planting clean seed.
- If a weed pest population continues to progress after treatment with this product, discontinue use of this product, and switch to another management strategy or herbicide with a different mode of action, if available.
- Contact your local extension specialist, certified crop advisors and/or manufacturer for herbicide resistance management and/or integrated weed management recommendations for specific crops and resistant weed biotypes.

Report any incidence of non-performance of this product against a particular weed species to your JABCO, LLC retailer or representative at (703) 377-8877.

# PRODUCT INFORMATION

## RESTRICTIONS:

- Application on Long Island, New York is restricted to no more than 14.7 fl. oz. (0.250 lb. a.i.) of Crop Protect Direct Clethodim 2EC per acre per year.
- DO NOT apply if rain is expected within 1 hour of application as control may be unsatisfactory.
- . DO NOT apply a post emergence broadleaf herbicide within 1 day following application of Crop Protect Direct Clethodim 2EC or reduced grass control may result.
- DO NOT apply under conditions of stress. Applying Crop Protect Direct Clethodim 2EC under conditions that do not promote active grass growth will reduce herbicide
  effectiveness. These conditions include drought, excessive water, extremes in temperature, low humidity and grasses either partially controlled or stunted from before
  pesticide applications. Grasses under these kinds of stressful conditions will not absorb and translocate Crop Protect Direct Clethodim 2EC effectively and will be
  less susceptible to herbicide activity.
- DO NOT allow Crop Protect Direct Clethodim 2EC to come into contact with desirable grass crops including corn, rice, sorghum, small grains, or turf, as these and other grass crops will be injured or killed. Minor leaf spotting may occur on treated plants under certain environmental conditions. New foliage is not affected.
- Aerial applications for all tree fruits and tree nuts uses are prohibited.

# ROTATIONAL RESTRICTION:

. DO NOT plant rotational crops until 30 days after application of Crop Protect Direct Clethodim 2EC, unless the crop is listed on the Crop Protect Direct Clethodim 2EC label.

#### PRECAUTIONS:

- Grass crops including corn, rice, sorghum, small grains, or turf, etc. are highly sensitive to Crop Protect Direct Clethodim 2EC.
- Crop Protect Direct Clethodim 2EC may not be used on vegetable crops being grown for seed production, unless specific use directions are provided.
- Crop Protect Direct Clethodim 2EC is a selective post-emergence herbicide for control of annual and perennial grasses.
- Crop Protect Direct Clethodim 2EC does not control sedges or broadleaf weeds.
- Optimal perennial grass control can be obtained if rhizomes or stolons are cut up by pre-plant tillage practices (discing, plowing, etc.) to stimulate maximum emergence
  of grass shoots. Cultural practices, including continuous no-tillage in which the perennial grass rhizomes or stolons are not cut up, result in a very staggered,
  non-uniform weed emergence. Due to this non-uniform weed emergence, make no fewer than 2 Crop Protect Direct Clethodim 2EC applications per year at the
  appropriate weed-growth stage rate under continuous no-till conditions.
- While all vegetable crops on this label have been tested and are not sensitive to Crop Protect Direct Clethodim 2EC, not all specialty varieties of these crops have been
  tested. It is advised that before applying Crop Protect Direct Clethodim 2EC to specialty varieties of vegetable crops on this label, crop sensitivity be investigated first
  using a small section of the field. It is oossible that injury symptoms can occur. Symptoms may appear as leaf speckling or stunting.
- Always read and follow the restrictions and precautions for all products whether used alone on in a tank mix. The most restrictive labeling of any product used applies
  in tank mixtures, including all crop rotational and other crop restrictions.
- Tank mixes of Crop Protect Direct Clethodim 2EC and broadleaf herbicides may result in reduced grass control. If grass regrowth occurs, an additional application of Crop Protect Direct Clethodim 2EC may be necessary. AVOID SPRAY DRIFT.
- Repeated use of Crop Protect Direct Clethodim 2EC (or similar post-emergence grass herbicides with the same mode of action) may lead to the selection of naturally occurring biotypes that are resistant to these products in some grass species.
- If poor performance occurs and cannot be attributed to adverse weather or application conditions, a resistant biotype may be present. This is most likely to occur in fields
  where other control strategies including crop rotation, mechanical removal, and other classes of herbicides are not used from year to year.

#### APPLICATION INFORMATION

# Timing of Applications

Apply Crop Protect Direct Clethodim 2EC post-emergence to actively growing grasses according prescribed rates in the table. Applications made to grass plants stressed by insufficient moisture, or hot or cold temperatures, or to grass plants exceeding listed growth stages may result in unsatisfactory control. DO NOT apply under these conditions.

In arid regions where irrigation is used to supplement limited rainfall, apply **Crop Protect Direct Clethodim 2EC** as soon as possible, after irrigation (within 7 days). In arid regions, a second application of **Crop Protect Direct Clethodim 2EC** will generally provide more effective control of perennial grass weeds than a single application. Make second application to actively growing grass 2 to 3 weeks after emergence of new growth.

Cultivation of treated grasses 7 days before or within 7 days after application of Crop Protect Direct Clethodim 2EC may reduce weed control. DO NOT APPLY Crop Protect Direct Clethodim 2EC if rainfall is expected within 1 hour, since control may be reduced.

# **Control Symptoms**

Treated grass weeds show a reduction in vigor and growth. Early chlorosis/necrosis of younger plant tissue is followed by a progressive collapse of the remaining foliage. Symptoms will generally be observed in 7 to 14 days after application, depending on grass species treated and environmental conditions.

# ADDITION OF ADJUVANT OR CROP OIL CONCENTRATE

CROP	ADJUVANT USE INSTRUCTIONS
Alfalfa, Cotton, Bean (dry) and Pea (shelled), Edible Podded Legume Vegetable (except soybean), Peanuts (including perennial), Potato, Soybean, Bean and Pea	Always use a crop oil concentrate* at 1.0 qt./A by ground or 1% v/v (but not less than 1 pt./A) in the finished spray volume by air.
(succulent shelled), Sugar Beet, and Sunflower (except safflower)	1 to 2 qts./A of liquid fertilizer (10-34-0, 28%N, or 32%N), or an equivalent amount (2.5 to 4.0 lbs./A) of spray grade ammonium sulfate (AMS) may be added to Crop Protect Direct Clethodim 2EC applications, in addition to the specified rate of crop oil concentrate. The addition of AMS has shown improved grass control for difficult to control species including: quackgrass, rhizome Johnsongrass, red rice, wild oats, volunteer cereals, and volunteer com.
Artichoke (globe), Asparagus, , Bushberry, Caneberry, Canola (except flax seed, mustard seed and sesame), Clover, Cranberry, Flax, Fruiting Vegetables (except	Always use a crop oil concentrate at 1% v/v in the finished spray volume, unless tank mix instructions indicate otherwise.
tomato), Garden Beet, Head and Stem Brassica Vegetables, Herbs, Hops, Leaf Petiole Vegetable Subgroup 22B, Leafy Brassica Greens, Leafy Greens, Peppermint and Spearmint Tops, Melon Subgroup 9A, Mustard Seed, Onion (dry bulb), Green Onion, Radish, Root Vegetables (except radish), Safflower, Sesame, Squash/cucumber Subgroup 9B, Stone Fruit, Strawberry, Tuberous and Corm Vegetables (except potato), and Tomato	Addition of liquid fertilizer is not advised for these crops.
Non-Bearing Food Crops, Ornamental Plants	Add a non-ionic surfactant containing at least 80% active ingredient at the rate of 1 pt. per 50 gals. (0.25% v/v). Use of crop oil concentrate is not advised since it may injure flowers and foliage.
Conifer Trees, Fallow Land (and other non-producing agricultural areas), and Non-Crop or Non-Planted Areas	Always use a crop oil concentrate containing at least 15% emulsifier at 1% v/v (but not less than 1 pt./A) in the finished spray volume.
*Acceptable crop oil concentrates would be those that contain a minimum of 80	% oils and 15% emulsifier. A crop oil concentrate must contain either a petroleum or

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vegetable oil base and must meet all the following criteria: be non-phytotoxic, contain only EPA-exempt ingredients, provide good mixing quality, and be successful in local

experience. Highly refined vegetable oils have proven more satisfactory than unrefined vegetable oils.

# **Ground Application**

Use of sufficient spray volumes and pressure is essential to ensure complete coverage. Use a minimum of 5 gals. and a maximum of 40 gals, of spray solution per acre. Under the following conditions a minimum of 10 gals. per acre is required: ultra-narrow row cotton, narrow row soybeans, broadleaf herbicide tank mixes, perennial grasses, volunteer corn, drought or stress conditions, heavy grass pressure or when grasses are at or near maximum height. Failure to use a minimum of 10 gals, per acre under these conditions can result in poor coverage and reduced grass control requiring repeat applications. Spray pressures must reflect a minimum of 30 PSI and a maximum of 60 PSI at the norze. Po NOT use flood norzes.

Applications to onions (dry bulb), green onion and garlic must be made in a minimum of 20 gals. of spray solution per acre.

### Air Application

Use a minimum of 3 gals. of spray solution per acre, unless otherwise directed in this label. Increase spray volumes up to 10 gals. as grass or crop foliage becomes dense. For onions (dry bulb), green onion or garlic: When applying by air DO NOT exceed 7.37 fl. oz./A (0.125 lb. a.i.) in a single application. In California, make air applications to onions or garlic in a minimum of 20 gals. of spray solution per acre. In states other than California, air application to onions or garlic must be made in a minimum of 10 gals. of spray solution per acre.

NOTE: Crop injury may occur when Crop Protect Direct Clethodim 2EC is applied to onions or garlic with aerial equipment.

#### Spot Treatment

When using hand sprayers or high volume sprayers utilizing hand guns, mix 1/4% (0.33 oz. to 0.65 oz. per gal.) Crop Protect Direct Clethodim 2EC and treat to wet vegetation, while not allowing runoff of spray solution. For uses requiring crop oil concentrate, include crop oil concentrate at 1% (1.3 oz. per gal.) by volume. For uses requiring non-ionic surfactant, include non-ionic surfactant at 11/4% (0.33 oz. per gal.) by volume.

NOTE: If Crop Protect Direct Clethodim 2EC is applied as a spot treatment, DO NOT exceed the maximum rate allowed on a "per acre" basis or crop injury may occur.

# CHEMIGATION - ONION (Dry Buib), GREEN ONION, AND GARLIC SPRINKLER IRRIGATION APPLICATION

Only apply Crop Protect Direct Clethodim 2EC by chemigation to onion (dry bulb), green onion, and garlic crops. May be applied to onions and garlic by sprinkler irrigation systems.

Apply **Crop Protect Direct Clethodim 2EC** at the high rate for annual grasses (14.7 fl. oz. per acre; 0.250 lb. a.i.) when the grass height is at the low end of the range (application to larger grasses may not provide adequate control). Add a crop oil concentrate containing at least 15% emulsifier at 1 quart per acre.

Apply **Crop Protect Direct Clethodim 2EC** in 0.1 to 0.2 acre-inch of water either at the end of a regular irrigation set or as a separate application not associated with a regular irrigation using the least amount of water that provides proper distribution and coverage. Application of more than label specified quantities of irrigation water per acre may result in decreased product performance by removing the chemical from the zone fefectiveness. Use a metering device to inject the **Crop Protect Direct Clethodim 2EC** into the irrigation water at a constant flow. Constant agitation must be maintained in the chemical supply tank during the entire period of herbicide application. Inject the product with a positive displacement pump into the main line ahead of a right angle turn to ensure adequate mixing. Allow time for all lines to flush the herbicide through all nozzles before turning off irrigation water. To ensure the lines are flushed and free of remaining herbicide, a dye indicator may be injected into the lines to mark the end of the application period.

# Restrictions:

- . DO NOT apply Crop Protect Direct Clethodim 2EC by chemigation in the states of Idaho, Montana, Oregon, and Washington.
- DO NOT apply this product through any irrigation system connected to a public water system.
- . DO NOT apply by chemigation to any other crop, or to this crop using any other type of irrigation system.
- D0 NOT apply Crop Protect Direct Clethodim 2EC through an irrigation system connected to a public water system. Public water system means a system for the
  provision to the public of piped water for human consumption, if such system has at least 15 service connections or regularly serves an average of at least 25 individuals
  daily at least 60 days out of the year.
- DO NOT apply this product through any other type of irrigation system (i.e., Public Irrigation System).
- DO NOT connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system, unless the label-prescribed safety devices
  for public water systems are in place.
- A person knowledgeable of the chemigation system and responsible for its operation or under supervision of the responsible person, shall shut the system down and
  make necessary adjustments if the need arises.
- The system must contain a functional check valve, vacuum relief valve, and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow.
- The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
- The pesticide injection pipeline must also contain a functional, normally closed solenoid-operated valve located on the intake side of the injection pump and connected
  to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
- . The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
- The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point
  where pesticide distribution is adversely affected.
- Systems must use a metering pump, including a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that
  are compatible with pesticides and capable of being fitted with a system interlock.
- DO NOT apply when wind speed favors drift beyond the area intended for treatment.
- DO NOT connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system, unless the label-prescribed safety devices
  for public water supplies are in place.
- Apply this product through sprinkler irrigation systems including center pivot, lateral move, end tow, side (wheel) roll, travelers, big gun, solid set, or hand move. DO NOT apply this product through any other type of irrigation system.

# Precautions:

- . Crop injury, lack of effectiveness, or illegal pesticide residues in the crop may result from non-uniform distribution of treated water.
- . If you have any questions about calibration, contact State Extension Service specialists, equipment manufacturers or other experts.

#### CROP SPECIFIC RESTRICTIONS AND LIMITATIONS FOR CROP PROTECT DIRECT CLETHODIM 2EC.

Crops <sup>1</sup>	Minimum Time from Application to Harvest (PHI)	Use Rates/Acre	Crop Oil Concentrate Rates/Acre <sup>2</sup>
Alfalfa, including: Sainfoin Holy Clover Birdsfoot Trefoil <sup>3</sup>	15 days before grazing, feeding, or harvesting (cutting) for forage or hay.	5.55 - 14.7 fl. oz. <sup>4</sup> (0.094 - 0.250 lb. a.i.)	1 qt. by ground or 1% v/v (but not less than 1 pt./A) by air. <sup>5</sup>

# Application Instructions:

Refer to tank mix partners for feeding, grazing and harvesting restrictions. The addition of Ammonium Sulfate (AMS) has shown improved grass control for difficult to control species including; quackgrass, rhizome Johnsongrass, red rice, wild oats, volunteer cereals, and volunteer corn.

#### Restrictions:

- DO NOT apply more than 14.7 fl. oz. (0.250 lb. a.i.) per acre per application.
- **DO NOT** apply more than 29.5 fl. oz. (0.500 lb. a.i.) per acre per year.
- DO NOT apply more than 4 applications at the lowest rate, 5.55 fl. oz. (0.094 lb. a.i.), or 2 applications at the highest rate, 14.7 fl. oz. (0.250 lb. a.i.), per year.
- RTI: For repeat applications, make on a minimum of a 14-day interval.
- DO NOT apply this product plus 2,4-DB as a tank mix to alfalfa, unless the 60-day feeding, grazing, and harvesting restriction on the 2,4-DB label can be observed.

1 Crop Protect Direct Clethodim 2EC is not to be used on vegetable crops being grown for seed production, unless specific use directions are provided.

<sup>2</sup>Acceptable crop oil concentrates would be those which contain a minimum of 80% oils and 15% emulsifier. A crop oil concentrate must contain either a petroleum or vegetable oil base and must meet all the following criteria: be non-phytotoxic, contain only EPA-exempt ingredients, provide good mixing quality and be successful in local experience. Highly refined vegetable oils have proven more satisfactory than unrefined vegetable oils. Refer to the **ADDITION OF ADJUVANT OR CROP OIL CONCENTRATE** section for further information.

3Crop Protect Direct Clethodim 2EC may be applied to seedling or established alfalfa grown for seed, hay, silage, green crop, or direct grazing.

4For weed control in established alfalfa, the minimum use rate is 9.2 fl. oz./A (0.156 lb. a.i./A).

<sup>5</sup>1 to 2 qts./A of liquid fertilizer (10-34-0, 28%N) or 32%N), or an equivalent amount (2.5 - 4.0 lbs./A) of spray grade ammonium sulfate (AMS) may be added to **Crop Protect Direct Clethodim 2EC** applications, in addition to the specified rate of crop oil concentrate.

Crops <sup>1</sup>	Minimum Time from Application to Harvest (PHI)	Use Rates/Acre	Crop Oil Concentrate Rates/Acre <sup>2</sup>
Artichoke (Globe)	5 days	5.55 - 7.37 fl. oz. (0.094 - 0.125 lb. a.i.)	1% v/v in the finished spray volume.

# Restrictions:

- DO NOT apply more than 7.37 fl. oz. (0.125 lb. a.i.) per acre per application.
- DO NOT apply more than 29.5 fl. oz. (0.500 lb. a.i.) per acre per year.
- . DO NOT apply more than 4 applications per year.
- RTI: For repeat applications, make on a minimum of a 14-day interval.

1 Crop Protect Direct Clethodim 2EC is not to be used on vegetable crops being grown for seed production, unless specific use directions are provided.

<sup>2</sup>Acceptable crop oil concentrates would be those which contain a minimum of 80% oils and 15% emulsifier. A crop oil concentrate must contain either a petroleum or vegetable oil base and must meet all the following criteria: be non-phytotoxic, contain only EPA-exempt ingredients, provide good mixing quality and be successful in local experience. Highly refined vegetable oils have proven more satisfactory than unrefined vegetable oils. Refer to the **ADDITION OF ADJUVANT OR CROP OIL CONCENTRATE** section for further information.

Crops <sup>1</sup>	Minimum Time from Application to Harvest (PHI)	Use Rates/Acre	Crop Oil Concentrate Rates/Acre <sup>2</sup>
Asparagus	1 day	5.55 - 7.37 fl. oz. (0.094 - 0.125 lb. a.i.)	1% v/v in the finished spray volume.

# Restrictions:

- **DO NOT** apply more than 7.37 fl. oz. (0.125 lb. a.i.) per acre in a single application.
- DO NOT apply more than 29.5 fl. oz. (0.500 lb. a.i.) per acre per year.
- DO NOT apply more than 4 applications at 5.55 7.37 fl. oz. per acre per year.
- RTI: For repeat applications, make on a minimum of a 14-day interval.

<sup>1</sup>Crop Protect Direct Clethodim 2EC is not to be used on vegetable crops being grown for seed production, unless specific use directions are provided.

Crops <sup>1</sup>	Minimum Time from Application to Harvest (PHI)	Use Rates/Acre	Crop Oil Concentrate Rates/Acre <sup>2</sup>
Bean (Dry, Shelled) [Dry Shelled		5.55 - 14.7 fl. oz.	1 qt. by ground or 1% v/v
Pea and Bean (except Soybean)		(0.094 - 0.250 lb. a.i.)	(but not less than 1 pt./A) by air.3
Subgroup 6C], including:			
Bean ( <i>Lupinus</i> spp.) Grain			
Sweet			
White			
White Sweet			
Bean ( <i>Phaseolus</i> spp.)			
Field			
Kidney			
Lima (Dry)			
Navy			
Pinto			
Tepary			
Bean ( <i>Vigna</i> spp.)			
Adzuki Bean			
Blackeyed Pea			
Catjang			
Cowpea			
Crowder Pea Moth Bean			
Mung Bean			
Rice Bean			
Southern Pea			
Urd Bean			
Broad (Dry)			
Chickpea (Garbanzo)			
Guar			
Lablab Bean			
Lentil			

Refer to appropriate Table for reduced rate directions for the control of small annual grasses. The addition of Ammonium Sulfate (AMS) has shown improved grass control for difficult to control species including: quackgrass, rhizome Johnsongrass, red rice, wild oats, volunteer cereals, and volunteer corn.

Restrictions:

- **DO NOT** apply more than 14.7 fl. oz. (0.250 lb. a.i.) per acre per application.
- DO NOT apply more than 29.5 fl. oz. (0.500 lb. a.i.) per acre per year.
- DO NOT apply more than 4 applications at the lowest rate, 5.55 fl. oz. (0.094 lb. a.i.), or 2 applications at the highest rate, 14.7 fl. oz. (0.250 lb. a.i.), per year.
- RTI: For repeat applications, make on a minimum of 14-day interval.

1 Crop Protect Direct Clethodim 2EC is not to be used on vegetable crops being grown for seed production, unless specific use directions are provided.

<sup>2</sup>Acceptable crop oil concentrates would be those which contain a minimum of 80% oils and 15% emulsifier. A crop oil concentrate must contain either a petroleum or vegetable oil base and must meet all the following criteria: be non-phytotoxic, contain only EPA-exempt ingredients, provide good mixing quality and be successful in local experience. Highly refined vegetable oils have proven more satisfactory than unrefined vegetable oils. Refer to the **ADDITION OF ADJUVANT OR CROP OIL CONCENTRATE** section for further information.

<sup>3</sup>1 to 2 qts./A of liquid fertilizer (10-34-0, 28%N or 32%N), or an equivalent amount (2.5 - 4.0 lbs./A) of spray grade ammonium sulfate (AMS) may be added to **Crop Protect Direct Clethodim 2EC** applications, in addition to the specified rate of crop oil concentrate.

Crops <sup>1</sup>	Minimum Time from Application to Harvest (PHI)	Use Rates/Acre	Crop Oil Concentrate Rates/Acre <sup>2</sup>
Bean (Succulent, Shelled) [Succulent Shelled Pea and Bean Subgroup B9I, including: Bean (Phaseolus spp.) Broad Bean (Succulent) Lima Bean (Green) Bean (Vigna spp.) Black-eyed Pea Cowpea Southern Pea	21 days	5.55 - 7.37 fl. oz. (0.094 - 0.125 lb. a.i.)	1 qt. by ground or 1% v/v (but not less than 1 pt./A) by air. <sup>3</sup>

Refer to appropriate Table for reduced rate directions for the control of small annual grasses. The addition of Ammonium Sulfate (AMS) has shown improved grass control for difficult to control species including; quackgrass, rhizome Johnsongrass, red rice, wild pats, volunteer cereals, and volunteer corn.

#### Restrictions

- **DO NOT** apply more than 7.37 fl. oz. (0.125 lb. a.i.) per acre per application.
- DO NOT apply more than 7.37 fl. oz. (0.125 lb. a.i.) per acre per year.
- DO NOT apply more than 1 application per acre per year.

1Crop Protect Direct Clethodim 2EC is not to be used on vegetable crops being grown for seed production, unless specific use directions are provided.

<sup>2</sup>Acceptable crop oil concentrates would be those which contain a minimum of 80% oils and 15% emulsifier. A crop oil concentrate must contain either a petroleum or vegetable oil base and must meet all the following criteria: be non-phytotoxic, contain only EPA-exempt ingredients, provide good mixing quality and be successful in local experience. Highly refined vegetable oils have proven more satisfactory than unrefined vegetable oils. Refer to the **ADDITION OF ADJUVANT OR CROP OIL CONCENTRATE** section for further information.

31 to 2 qts./A of liquid fertilizer (10-34-0, 28%N, or 32%N), or an equivalent amount (2.5 - 4.0 lbs./A) of spray grade ammonium sulfate (AMS) may be added to Crop Protect Direct Clethodim 2EC applications, in addition to the specified rate of crop oil concentrate.

Crops <sup>1</sup>	Minimum Time from Application to Harvest (PHI)	Use Rates/Acre	Crop Oil Concentrate Rates/Acre <sup>2</sup>
Beet, Garden	30 days	5.55 - 7.37 fl. oz. (0.094 - 0.125 lb. a.i.)	1% v/v in the finished spray volume.

### Restrictions:

- DO NOT apply more than 7.37 fl. oz. (0.125 lb. a.i.) per acre per application.
- DO NOT exceed 29.5 fl. oz. (0.500 lb. a.i.) per acre per year.
- **DO NOT** apply more than 4 application per acre per year.
- . RTI: For repeat applications, make on a minimum of a 14-day interval.

1 Crop Protect Direct Clethodim 2EC is not to be used on vegetable crops being grown for seed production, unless specific use directions are provided.

Crops <sup>1</sup>	Minimum Time from Application to Harvest (PHI)	Use Rates/Acre	Crop Oil Concentrate Rates/Acre <sup>2</sup>
Vegetable, Brassica, Head and Stem [Group 5-16], including: Broccoli Broccoli, Chinese Brussels Sprouts Cabbage, Chinese (Napa) Cabbage, Chinese (Napa) Cabbage, Chinese Mustard Cauliflower Cavalo Broccolo Kohlrabi	30 days	5.55 - 7.37 fl. oz. (0.094 - 0.125 lb. a.i.)	1% v/v in the finished spray volume.

- **DO NOT** apply more than 7.37 fl. oz. (0.125 lb. a.i.) per acre per application.
- DO NOT apply more than 29.5 fl. oz. (0.500 lb. a.i.) per acre per year.
- **DO NOT** apply more than 4 applications per acre per year.
- RTI: For repeat applications, make on a minimum of a 14-day interval.

1 Crop Protect Direct Clethodim 2EC is not to be used on vegetable crops being grown for seed production, unless specific use directions are provided.

Acceptable crop oil concentrates would be those which contain a minimum of 80% oils and 15% emulsifier. A crop oil concentrate must contain either a petroleum or vegetable oil base and must meet all the following criteria: be non-phytotoxic, contain only EPA-exempt ingredients, provide good mixing quality and be successful in local experience. Highly refined vegetable oils have proven more satisfactory than unrefined vegetable oils. Refer to the **ADDITION OF ADJUVANT OR CROP OIL CONCENTRATE** section for further information.

Crops <sup>1</sup>	Minimum Time from Application to Harvest (PHI)	Use Rates/Acre	Crop Oil Concentrate Rates/Acre <sup>2</sup>
Brassica Leafy Greens [Subgroup	14 days	5.55 - 7.37 fl. oz.	1% v/v in the finished spray volume.
4-16B] (except Radish Leaves,		(0.094 - 0.125 lb. a.i.)	
Turnip Greens and Watercress),			
including:			
Arugula			
Broccoli, Chinese			
Broccoli Raab			
Cabbage, Abyssinian			
Cabbage, Chinese (Bok Choy)			
Cabbage, Seakale			
Collards			
Cress, Garden			
Cress, Upland			
Hanover Salad			
Kale			
Maca (Leaves)			
Mizuna			
Mustard Greens			
Rape Greens			
Rocket, Wild			
Shepherd's Purse			
Cultivars, varieties, and/or hybrids of			
these commodities.			

# Restrictions:

- DO NOT apply more than 7.37 fl. oz. (0.125 lb. a.i.) per acre per application.
- DO NOT apply more than 4 applications per acre per year.
- DO NOT apply more than 29.5 fl. oz. (0.500 lb. a.i.) per acre per year.
- RTI: For repeat applications, make on a minimum of a 14-day interval.

1 Crop Protect Direct Clethodim 2EC is not to be used on vegetable crops being grown for seed production, unless specific use directions are provided.

Crops <sup>1</sup>	Minimum Time from Application to Harvest (PHI)	Use Rates/Acre	Crop Oil Concentrate Rates/Acre <sup>2</sup>
Berry Low Growing (except Cranberry and Strawberry) Subgroup 13-07G, including: Bearberry Bilberry Blueberry, Lowbush Cloudberry Lingonberry Muntries Partridgeberry	45 days	3.7 - 7.37 fl. oz. (0.063 - 0.125 lb. a.i.)	Non-lonic surfactant (NIS) at 0.25% v/v

Verify crop safety to **Crop Protect Direct Clethodim 2EC** on a small area of the crop, at the desired **Crop Protect Direct Clethodim 2EC** rate and with the same non-ionic surfactant (NIS) that will be used on the field. In or crop response is evident 7 days after treatment, **Crop Protect Direct Clethodim 2EC** may be used on the entire field at the rate tested and with the same NIS used in the crop safety test.

#### Restrictions

- DO NOT apply more than 7.37 fl. oz. (0.125 lb. a.i.) per acre per application.
- DO NOT make more than 4 applications per acre per year.
- DO NOT apply more than 29.5 fl. oz. (0.500 lb. a.i.) per acre per year.
- . RTI: For repeat applications, make on a minimum of a 14-day interval.

1 Crop Protect Direct Clethodim 2EC is not to be used on vegetable crops being grown for seed production, unless specific use directions are provided.

Crops <sup>1</sup>	Minimum Time from Application to Harvest (PHI)	Use Rates/Acre	Crop Oil Concentrate Rates/Acre <sup>2</sup>
Bushberry [Bushberry Subgroup	14 days	5.55 - 7.37 fl. oz.	1% v/v in the finished spray volume.
13-07B], including:		(0.094 - 0.125 lb. a.i.)	
Aronia Berry			
Blueberry, Highbush Chilean Guava			
Cranberry, Highbush Currant, Black			
Currant, Buffalo			
Currant, Native			
Currant, Red			
Elderberry			
European Barberry			
Gooseberry			
Honeysuckle, Edible			
Huckleberry			
Jostaberry			
Juneberry			
Saskatoon Berry			
Salal Sea Buckthorn			
Cultivars, varieties and/or hybrids			
of these.			

Apply at the base of the plant where grassy weeds are growing near the ground.

#### Restrictions:

- DO NOT apply more than 7.37 fl. oz. (0.125 lb. a.i.) per acre per application.
- DO NOT apply more than 29.5 fl. oz. (0.500 lb. a.i.) per acre per year.
- DO NOT apply more than 4 applications at 5.55 7.37 fl. oz. per acre per year.
- RTI: For repeat applications, make on a minimum of a 14-day interval.
- . DO NOT apply to low growing berries.
- . DO NOT apply to Bushberry grown for root stock.

1Crop Protect Direct Clethodim 2EC is not to be used on vegetable crops being grown for seed production, unless specific use directions are provided.

Crops <sup>1</sup>	Minimum Time from Application to Harvest (PHI)	Use Rates/Acre	Crop Oil Concentrate Rates/Acre <sup>2</sup>
Caneberry [Caneberry Subgroup 13-07A], including: Blackberry Loganberry Raspberry, Black	7 days	5.55 - 7.37 fl. oz. (0.094 - 0.125 lb. a.i.)	1% v/v in the finished spray volume.
Raspberry, Red Raspberry, Wild Cultivars, varieties and/or hybrids of these.			

Apply at the base of the plant where grassy weeds are growing near the ground.

#### Restrictions

- DO NOT apply more than 7.37 fl. oz. (0.125 lb. a.i.) per acre per application.
- DO NOT apply more than 29.5 fl. oz. (0.500 lb. a.i.) per acre per year.
- **DO NOT** apply more than 4 applications at 5.55 7.37 fl. oz, per acre per year.
- RTI: For repeat applications, make on a minimum of a 14-day interval.
- . DO NOT apply to low growing berries.
- . DO NOT apply to Caneberry grown for root stock.

1 Crop Protect Direct Clethodim 2EC is not to be used on vegetable crops being grown for seed production, unless specific use directions are provided.

<sup>2</sup>Acceptable crop oil concentrates would be those which contain a minimum of 80% oils and 15% emulsifier. A crop oil concentrate must contain either a petroleum or vegetable oil base and must meet all the following criteria: be non-phytotoxic, contain only EPA-exempt ingredients, provide good mixing quality and be successful in local experience. Highly refined vegetable oils have proven more satisfactory than unrefined vegetable oils. Refer to the **ADDITION OF ADJUVANT OR CROP OIL CONCENTRATE** section for further information.

Crops <sup>1</sup>	Minimum Time from Application to Harvest (PHI)	Use Rates/Acre	Crop Oil Concentrate Rates/Acre <sup>2</sup>
Canola (except flax seed) [Rapeseed Subgroup 20A], including:	70 days	3.7 - 5.55 fl. oz. (0.063 - 0.094 lb. a.i.)	1% v/v in the finished spray volume.
Borage Crambe Cuphea			
Echium Gold of Pleasure (Camelina)			
Hare's Ear Mustard Lesquerella Lunaria			
Meadowfoam Milkweed			
Oil Radish Poppy Seed			
Rapeseed (Canola) Sweet Rocket Cultivars, varieties, and/or hybrids			
of these.			

# Application Instructions:

Verify crop sensitivity to Crop Protect Direct Clethodim 2EC on a small area of the crop at the desired Crop Protect Direct Clethodim 2EC rate and with the same non-ionic surfactant (NIS) that will be used on the field. If no crop response is evident 7 days after treatment, Crop Protect Direct Clethodim 2EC may be used on the entire field at the rate tested and with the same NIS used in the sensitivity test.

#### Doctrictions

- DO NOT apply after crop has begun bolting. Crop injury may occur when Crop Protect Direct Clethodim 2EC is applied during the bloom period.
- DO NOT apply more than 5.55 fl. oz. (0.094 lb. a.i.) per acre per application.
- DO NOT apply more than 5.55 fl. oz. (0.094 lb. a.i.) per acre per year.
- . DO NOT apply more than 1 application per acre per year.

<sup>1</sup>Crop Protect Direct Clethodim 2EC is not to be used on vegetable crops being grown for seed production, unless specific use directions are provided.

Crops <sup>1</sup>	Minimum Time from Application to Harvest (PHI)	Use Rates/Acre	Crop Oil Concentrate Rates/Acre <sup>2</sup>
Clover	15 days before grazing, feeding, or harvesting (cutting) for forage or hay.	5.55 - 14.7 fl. oz. (0.094 - 0.250 lb. a.i.)	1% v/v in the finished spray volume.

For use on clover grown in the states of Idaho, Oregon, and Washington only. For repeat applications, make on a minimum of a 14-day interval.

## Restrictions:

- DO NOT apply more than 14.7 fl. oz. (0.250 lb. a.i.) per acre per application.
- DO NOT exceed 14.7 fl. oz. (0.250 lb. a.i.) per acre per year.
- DO NOT make more than 2 applications at the lowest rate, 5.55-7.37 fl. oz. (0.094-0.125 lb. a.i./A), or 1 application at the highest rate, 14.7 fl. oz. (0.25 lb. a.i./A), per acre per year.

1 Crop Protect Direct Clethodim 2EC is not to be used on vegetable crops being grown for seed production, unless specific use directions are provided.

<sup>2</sup>Acceptable crop oil concentrates would be those which contain a minimum of 80% oils and 15% emulsifier. A crop oil concentrate must contain either a petroleum or vegetable oil base and must meet all the following criteria: be non-phytotoxic, contain only EPA-exempt ingredients, provide good mixing quality and be successful in local experience. Highly refined vegetable oils have proven more satisfactory than unrefined vegetable oils. Refer to the **ADDITION OF ADJUVANT OR CROP OIL CONCENTRATE** section for further information.

Crops <sup>1</sup>	Minimum Time from Application to Harvest (PHI)	Use Rates/Acre	Crop Oil Concentrate Rates/Acre <sup>2</sup>
Corn, Field  For burndown of existing stand of Roundup Ready field corn or volunteer Roundup Ready field corn before replanting field corn.		2.77 fl. oz. (0.047 lb. a.i.)	DO NOT use COC or MSO with Crop Protect Direct Clethodim 2EC in this use pattern.
See Directions for Use in Roundup Ready Field Corn (Burndown) table.			

# Application Instructions:

To control the existing stand, replant no sooner than 6 days after application.

#### Restrictions:

- DO NOT make more than 1 application at 2.77 fl. oz. per year.
- DO NOT apply more than 2.77 fl. oz./A (0.047 lb. a.i.) per year.
- DO NOT apply more than 2.77 fl. oz./A (0.047 lb. a.i.) per application.

1Crop Protect Direct Clethodim 2EC is not to be used on vegetable crops being grown for seed production, unless specific use directions are provided.

Crops <sup>1</sup>	Minimum Time from Application to Harvest (PHI)	Use Rates/Acre	Crop Oil Concentrate Rates/Acre <sup>2</sup>
Cotton (including cotton grown for seed) including:	60 days	5.55 - 14.7 fl. oz. (0.094 - 0.250 lb. a.i.)	1 qt. by ground or 1% v/v (but not less than 1 pt./A) by air. <sup>3</sup>
Cottonseed Cultivars, varieties, and/or hybrids of these.			

The addition of Ammonium Sulfate (AMS) has shown improved grass control for difficult to control species including: quackgrass, rhizome Johnsongrass, red rice, wild oats, volunteer cereals, and volunteer corn.

#### Restrictions:

- DO NOT apply more than 14.7 fl. oz. (0.250 lb. a.i.) per acre per application.
- **DO NOT** apply more than 29.5 fl. oz. (0.500 lb. a.i.) per acre per year.
- DO NOT apply more than 4 applications at the lowest rate, 5.55 fl. oz. (0.094 lb. a.i.), or 2 applications at the highest rate, 14.7 fl. oz. (0.250 lb. a.i.), per year.
- RTI: For repeat applications, make on a minimum of a 14-day interval.
- DO NOT graze treated fields or feed treated forage or hav to livestock.

1 Crop Protect Direct Clethodim 2EC is not to be used on vegetable crops being grown for seed production, unless specific use directions are provided.

<sup>2</sup>Acceptable crop oil concentrates would be those which contain a minimum of 80% oils and 15% emulsifier. A crop oil concentrate must contain either a petroleum or vegetable oil base and must meet all the following criteria: be non-phytotoxic, contain only EPA-exempt ingredients, provide good mixing quality and be successful in local experience. Highly refined vegetable oils have proven more satisfactory than unrefined vegetable oils. Refer to the **ADDITION OF ADJUVANT OR CROP OIL CONCENTRATE** section for further information.

31 to 2 qts./A of liquid fertilizer (10-34-0, 28%N, or 32%N), or an equivalent amount (2.5 - 4.0 lbs./A) of spray grade ammonium sulfate (AMS) may be added to **Crop Protect Direct Clethodim 2EC** applications, in addition to the specified rate of crop oil concentrate.

Crops <sup>1</sup>	Minimum Time from Application to Harvest (PHI)	Use Rates/Acre	Crop Oil Concentrate Rates/Acre <sup>2</sup>
Cranberry	30 days	5.55 - 7.37 fl. oz. (0.094 - 0.125 lb. a.i.)	1% v/v in the finished spray volume.

### Restrictions:

- DO NOT apply more than 7.37 fl. oz. (0.125 lb. a.i.) per acre per application.
- DO NOT apply more than 29.5 fl. oz. (0.500 lb. a.i.) per are per year.
- DO NOT apply more than 4 applications per acre per year.
- . RTI: For repeat applications, make on a minimum of a 14-day interval.
- DO NOT apply between the "hook" stage and full fruit set.

1 Crop Protect Direct Clethodim 2EC is not to be used on vegetable crops being grown for seed production, unless specific use directions are provided.

<sup>2</sup>Acceptable crop oil concentrates would be those which contain a minimum of 80% oils and 15% emulsifier. A crop oil concentrate must contain either a petroleum or vegetable oil base and must meet all the following criteria: be non-phytotoxic, contain only EPA-exempt ingredients, provide good mixing quality and be successful in local experience. Highly refined vegetable oils have proven more satisfactory than unrefined vegetable oils. Refer to the **ADDITION OF ADJUVANT OR CROP OIL CONCENTRATE** section for further information.

Crops <sup>1</sup>	Minimum Time from Application to Harvest (PHI)	Use Rates/Acre	Crop Oil Concentrate Rates/Acre <sup>2</sup>
Fallow Land	N/A	5.55 - 14.7 fl. oz.	1% v/v (but not less than 1 pt./A)
Conifer Trees (and other non- producing agricultural areas)		(0.094 - 0.250 lb. a.i.)	in the finished spray volume using a crop oil concentrate containing at least 15% emulsifier.
Non-Crop or Non-Planted Areas			loade 10 /0 diffusition.

### Restrictions:

- DO NOT apply more than 14.7 fl. oz. (0.250 lb. a.i.) per acre per application.
- DO NOT apply more than 29.5 fl. oz. (0.500 lb. a.i.) per acre per year.
- DO NOT apply more than 4 applications at the lowest rate, 5.55 fl. oz. (0.094 lb. a.i.), or 2 applications at the highest rate, 14.7 fl. oz. (0.250 lb. a.i.), per year.
- RTI: For repeat applications, make on a minimum of a 14-day interval.
- DO NOT plant any crop for 30 days after application, unless clethodim is registered for use in that crop.

# N/A = Not Applicable

1 Crop Protect Direct Clethodim 2EC is not to be used on vegetable crops being grown for seed production, unless specific use directions are provided.

Crops <sup>1</sup>	Minimum Time from Application to Harvest (PHI)	Use Rates/Acre	Crop Oil Concentrate Rates/Acre <sup>2</sup>
Flax	60 days	5.55 - 7.37 fl. oz. (0.094 - 0.125 lb. a.i.)	1% v/v in the finished spray volume.

Apply before bloom. Crop injury may occur when Crop Protect Direct Clethodim 2EC is applied during the bloom period.

#### Restrictions:

- DO NOT apply more than 7.37 fl. oz. (0.125 lb. a.i.) per acre per application.
- DO NOT apply more than 14.7 fl. oz. (0.250 lb. a.i.) per acre per year.
- DO NOT apply more than 2 applications per acre per year.
- RTI: For repeat applications, make on a minimum of a 14-day interval.

1 Crop Protect Direct Clethodim 2EC is not to be used on vegetable crops being grown for seed production, unless specific use directions are provided.

Acceptable crop oil concentrates would be those which contain a minimum of 80% oils and 15% emulsifier. A crop oil concentrate must contain either a petroleum or vegetable oil base and must meet all the following criteria: be non-phytotoxic, contain only EPA-exempt ingredients, provide good mixing quality and be successful in local experience. Highly refined vegetable oils have proven more satisfactory than unrefined vegetable oils. Refer to the ADDITION OF ADJUVANT OR CROP OIL CONCENTRATE section for further information.

Crops <sup>1</sup>	Minimum Time from Application to Harvest (PHI)	Use Rates/Acre	Crop Oil Concentrate Rates/Acre <sup>2</sup>
Fruiting Vegetables (except Tomato	20 days	5.55 - 7.37 fl. oz.	1% v/v in the finished spray volume.
& Okra) [Group 8-10], including:		(0.094 - 0.125 lb. a.i.)	
African Eggplant			
Bush Tomato			
Bell Pepper			
Cocona			
Currant Tomato			
Eggplant			
Garden Huckleberry			
Goji Berry			
Groundcherry			
Martynia			
Naranjilla			
Pea Eggplant			
Pepino			
Non-Bell Pepper			
Roselle			
Scarlet Eggplant			
Sunberry			
Tomatillo			
Tree Tomato			
Cultivars, varieties, and/or hybrids			
of these.			

#### Restrictions:

- **DO NOT** apply more than 7.37 fl. oz. (0.125 lb. a.i.) per acre per application.
- DO NOT apply more than 29.5 fl. oz. (0.500 lb. a.i.) per acre per year.
- **DO NOT** apply more than 4 applications per acre per year.
- . RTI: For repeat applications, make on a minimum of a 14-day interval.

<sup>1</sup>Crop Protect Direct Clethodim 2EC is not to be used on vegetable crops being grown for seed production, unless specific use directions are provided.

Crops <sup>1</sup>	Minimum Time from Application to Harvest (PHI)	Use Rates/Acre	Crop Oil Concentrate Rates/Acre <sup>2</sup>
Herbs [Subgroup 19A], including:	14 days	5.55 - 7.37 fl. oz.	1% v/v in the finished spray volume.
Angelica		(0.094 - 0.125 lb. a.i.)	
Balm			
Basil			
Borage			
Burnet			
Camomile			
Catnip			
Chervil (Dried)			
Chive			
Chive, Chinese			
Clary			
Coriander (Leaf)			
Costmary			
Cilantro (Leaf)			
Curry (Leaf)			
Dill (Dillweed)			
Horehound			
Hyssop			
Lavender			
Lemongrass			
Lovage (Leaf)			
Marigold			
Marjoram ( <i>Origanum</i> spp.)			
Nasturtium			
Parsley (Dried)			
Pennyroyal			
Rosemary			
Rue			
Sage			
Savory (Summer and Winter)			
Sweet Bay			
Tansy			
Tarragon			
Thyme			
Wintergreen			
Woodruff			
Wormwood			

Crop Protect Direct Clethodim 2EC has not been tested on all herbs, and herb varieties. It is the responsibility of the user to test Crop Protect Direct Clethodim 2EC on a small portion of the crop to be treated before treating the entire field. Verify crop sensitivity to Crop Protect Direct Clethodim 2EC on a small area of the herb crop, at the desired Crop Protect Direct Clethodim 2EC mad with the same crop oil concentrate that will be used on the herb field. If no crop response is evident 7 days after treatment, Crop Protect Direct Clethodim 2EC may be used on the entire field at the rate tested and with the same crop oil used in the sensitivity test.

#### Restrictions

- **DO NOT** apply more than 7.37 fl. oz. (0.125 lb. a.i.) per acre per application.
- DO NOT apply more than 29.5 fl. oz. (0.500 lb. a.i.) per acre per year.
- DO NOT apply more than 4 applications at per acre per year.
- RTI: For repeat applications, make on a minimum of a 14-day interval.

1 Crop Protect Direct Clethodim 2EC is not to be used on vegetable crops being grown for seed production, unless specific use directions are provided.

Crops <sup>1</sup>	Minimum Time from Application to Harvest (PHI)	Use Rates/Acre	Crop Oil Concentrate Rates/Acre <sup>2</sup>
Hops	21 days	5.55 - 7.37 fl. oz. (0.094 - 0.125 lb. a.i.)	1% v/v in the finished spray volume.

- DO NOT apply more than 7.37 fl. oz. (0.125 lb. a.i.) per acre per application.
- DO NOT apply more than 29.5 fl. oz. (0.500 lb. a.i.) per acre per year.
- DO NOT apply more than 4 applications per acre per year.
- RTI: For repeat applications, make on a minimum of a 14-day interval.

1Crop Protect Direct Clethodim 2EC is not to be used on vegetable crops being grown for seed production, unless specific use directions are provided.

Acceptable crop oil concentrates would be those which contain a minimum of 80% oils and 15% emulsifier. A crop oil concentrate must contain either a petroleum or vegetable oil base and must meet all the following criteria: be non-phytotoxic, contain only EPA-exempt ingredients, provide good mixing quality and be successful in local experience. Highly refined vegetable oils have proven more satisfactory than unrefined vegetable oils. Refer to the **ADDITION OF ADJUVANT OR CROP OIL CONCENTRATE** section for further information.

Crops <sup>1</sup>	Minimum Time from Application to Harvest (PHI)	Use Rates/Acre	Crop Oil Concentrate Rates/Acre <sup>2</sup>	
Leaf Petioles (Subgroup 4B), including: Cardoon Celery Celery, Chinese Cettuce Fennel, Florence (Finochio) Rhubarb Swiss Chard	30 days	5.55 - 7.37 fl. oz. (0.094 - 0.125 lb. a.i.)	1% v/v in the finished spray volume.	

# Restrictions:

- **DO NOT** apply more than 7.37 fl. oz. (0.125 lb. a.i.) per acre per application.
- DO NOT apply more than 29.5 fl. oz. (0.500 lb. a.i.) per acre per year.
- . DO NOT apply more than 4 applications per acre per year.
- RTI: For repeat applications, make on a minimum of a 14-day interval.

1 Crop Protect Direct Clethodim 2EC is not to be used on vegetable crops being grown for seed production, unless specific use directions are provided.

Crops <sup>1</sup>	Minimum Time from Application to Harvest (PHI)	Use Rates/Acre	Crop Oil Concentrate Rates/Acre <sup>2</sup>
Leafy Greens [Subgroup 4-16A],	14 days	5.55 - 7.37 fl. oz.	1% v/v in the finished spray volume.
including:		(0.094 - 0.125 lb. a.i.)	
Amaranth		(* ,	
Chinese Spinach			
Leafy Amaranth			
Tampala			
Arugula (Roquette)			
Chervil			
Chrysanthemum, Edible-leaved			
Chrysanthemum, Garland			
Corn Salad			
Cress,			
Garden			
Upland (Yellow Rock and Winter)			
Dandelion			
Dock (Sorrel)			
Endive (Escarole)			
Lettuce, Head and Leaf			
Orach			
Parsley			
Purslane,			
Garden			
Winter			
Radicchio (Red Chicory)			
Spinach			
New Zealand Vine (Indian and			
Malabar)			

- DO NOT apply more than 7.37 fl. oz. (0.125 lb. a.i.) per acre per application.
- DO NOT apply more than 29.5 fl. oz. (0.500 lb. a.i.) per acre per year.
- . DO NOT apply more than 4 applications at per acre per year.
- RTI: For repeat applications, make on a minimum of a 14-day interval.

1 Crop Protect Direct Clethodim 2EC is not to be used on yegetable crops being grown for seed production, unless specific use directions are provided.

Crops <sup>1</sup>	Minimum Time from Application to Harvest (PHI)	Use Rates/Acre	Crop Oil Concentrate Rates/Acre <sup>2</sup>
Legume Vegetables, Edible Podded	21 days	5.55 - 7.37 fl. oz.	1 qt. by ground or 1% v/v
(except Soybean) [Edible-Podded		(0.094 - 0.125 lb. a.i.)	(but not less than 1 pt./A) by air.3
Legume Vegetables Subgroup 6A],			
including:			
Bean (Phaseolus spp.)			
Runner			
Snap			
Wax			
Bean (Vigna spp.)			
Asparagus			
Chinese			
Longbean			
Moth			
Yardlong			
Jackbean			
Pea (Pisum spp.)			
Dwarf			
Edible-Pod			
Snow			
Sugar Snap			
Pigeon Pea			
Sword Bean			

For peas, apply before bloom, but no later than 21 days before harvest. Refer to appropriate Table for reduced rate directions for the control of small annual grasses. The addition of Ammonium Sulfate (AMS) has shown improved grass control for difficult to control species including: quackgrass, rhizome Johnsongrass, red rice, wild oats, volunteer corn

#### Restrictions:

- DO NOT apply more than 7.37 fl. oz. (0.125 lb. a.i.) per acre per application.
- DO NOT apply more than 7.37 fl. oz. (0.125 lb. a.i.) per acre per year.
- DO NOT apply more than 1 application at 5.55 7.37 fl. oz. per acre per year.

1 Crop Protect Direct Clethodim 2EC is not to be used on vegetable crops being grown for seed production, unless specific use directions are provided.

<sup>2</sup>Acceptable crop oil concentrates would be those which contain a minimum of 80% oils and 15% emulsifier. A crop oil concentrate must contain either a petroleum or vegetable oil base and must meet all the following criteria: be non-phytotoxic, contain only EPA-exempt ingredients, provide good mixing quality and be successful in local experience. Highly refined vegetable oils have proven more satisfactory than unrefined vegetable oils. Refer to the **ADDITION OF ADJUVANT OR CROP OIL CONCENTRATE** section for further information.

31 to 2 qts./A of liquid fertilizer (10-34-0, 28%N), or 32%N), or an equivalent amount (2.5 - 4.0 lbs./A) of spray grade ammonium sulfate (AMS) may be added to **Crop Protect Direct Clethodim 2EC** applications, in addition to the specified rate of crop oil concentrate.

Crops <sup>1</sup>	Minimum Time from Application to Harvest (PHI)	Use Rates/Acre	Crop Oil Concentrate Rates/Acre <sup>2</sup>
Melons [Subgroup 9A], including: Citron Melon Melon Muskmelons (hybrids and/or cultivars of <i>Cucumis melo</i> ) including: Cantaloupes and Honeydew Watermelon	14 days	5.55 - 7.37 fl. oz. (0.094 - 0.125 lb. a.i.)	1% v/v in the finished spray volume.

#### Restrictions:

- DO NOT apply more than 7.37 fl. oz. (0.125 lb. a.i.) per acre per application.
- DO NOT apply more than 29.5 fl. oz. (0.500 lb. a.i.) per acre per year.
- DO NOT apply more than 4 applications per acre per year.
- RTI: For repeat applications, make on a minimum of a 14-day interval.

1 Crop Protect Direct Clethodim 2EC is not to be used on vegetable crops being grown for seed production, unless specific use directions are provided.

Crops <sup>1</sup>	Minimum Time from Application to Harvest (PHI)	Use Rates/Acre	Crop Oil Concentrate Rates/Acre <sup>2</sup>
Mint	21 days	5.55 - 14.7 fl. oz. <sup>3</sup>	1 qt. by ground or 1% v/v (but not less
(Peppermint and Spearmint Tops)		(0.094 - 0.250 lb. a.i.)	than 1 pt./A) by air.

- DO NOT apply more than 14.7 fl. oz. (0.250 lb. a.i.) per acre per application.
- DO NOT apply more than 29.5 fl. oz. (0.500 lb. a.i.) per acre per year.
- DO NOT apply more than 4 applications at the lowest rate, 5.55 fl. oz. (0.094 lb. a.i.), or 2 applications at the highest rate, 14.7 fl. oz. (0.250 lb. a.i.), per year.
- RTI: For repeat applications, make on a minimum of a 14-day interval.

1 Crop Protect Direct Clethodim 2EC is not to be used on vegetable crops being grown for seed production, unless specific use directions are provided.

<sup>2</sup>Acceptable crop oil concentrates would be those which contain a minimum of 80% oils and 15% emulsifier. A crop oil concentrate must contain either a petroleum or vegetable oil base and must meet all the following criteria: be non-phytotoxic, contain only EPA-exempt ingredients, provide good mixing quality and be successful in local experience. Highly refined vegetable oils have proven more satisfactory than unrefined vegetable oils. Refer to the **ADDITION OF ADJUVANT OR CROP OIL CONCENTRATE** section for further information.

3For weed control in established mint, the minimum use rate is 10 fl. oz./A (0.156 lb. a.i./A).

Crops <sup>1</sup>	Minimum Time from Application to Harvest (PHI)	Use Rates/Acre	Crop Oil Concentrate Rates/Acre <sup>2</sup>
Mustard Seed	75 days	3.7 - 5.55 fl. oz. (0.063 - 0.094 lb. a.i.)	1% v/v in the finished spray volume.

# Restrictions:

- DO NOT apply more than 5.55 fl. oz. (0.094 lb. a.i.) per acre per application.
- DO NOT exceed 11.08 fl. oz. (0.188 lb. a.i.) per acre per year.
- DO NOT apply more than 2 applications per acre per year.
- DO NOT apply after crop has begun bolting. Crop injury may occur when Crop Protect Direct Clethodim 2EC is applied during the bloom period.

1 Crop Protect Direct Clethodim 2EC is not to be used on yegetable crops being grown for seed production, unless specific use directions are provided.

<sup>2</sup>Acceptable crop oil concentrates would be those which contain a minimum of 80% oils and 15% emulsifier. A crop oil concentrate must contain either a petroleum or vegetable oil base and must meet all the following criteria: be non-phytotoxic, contain only EPA-exempt ingredients, provide good mixing quality and be successful in closel experience. Highly refined vegetable oils have proven more satisfactory than unrefined vegetable oils. Refer to the ADDITION OF ADJUVANT OR CROP OIL CONCENTRATE section for further information.

Crops <sup>1</sup>	Minimum Time from Application to Harvest (PHI)	Use Rates/Acre	Crop Oil Concentrate Rates/Acre <sup>2</sup>
Okra	3 days	5.55 - 7.37 fl. oz. (0.094 - 0.125 lb. a.i.)	1% v/v in the finished spray volume.

#### Restrictions:

- **DO NOT** apply more than 7.37 fl. oz. (0.125 lb. a.i.) per acre per application.
- DO NOT exceed 29.5 fl. oz. (0.5 lb. a.i.) per acre per year.
- **DO NOT** apply more than 4 applications per acre per year.
- RTI: For repeat applications, make on a minimum of a 14-day interval.

1 Crop Protect Direct Clethodim 2EC is not to be used on vegetable crops being grown for seed production, unless specific use directions are provided.

Crops <sup>1</sup>	Minimum Time from Application to Harvest (PHI)	Use Rates/Acre	Crop Oil Concentrate Rates/Acre <sup>2</sup>
Onion, Bulb [Subgroup 3-07A], including: Daylily (Bulb) Fritillaria (Bulb) Garlic, Great-Headed (Bulb) Garlic, Serpent (Bulb) Lily (Bulb) Onion, Bulb) Onion, Chinese (Bulb) Onion, Pearl Onion (Bulb) Shallot (Bulb) Shallot (Bulb) Cultivars, varieties, and/or hybrids of these.	45 days	5.55 - 14.7 fl. oz. <sup>3,4</sup> (0.094 - 0.250 lb. a.i.)	1% v/v in the finished spray volume.

Minimum of 20 gals./A spray volume by ground in entire U.S. Minimum of 20 gals./A spray volume by air in California.\*

In states other than California, air application to onions or garlic must be made in a minimum of 10 gals./A.

# Restrictions:

- \*California: DO NOT apply Crop Protect Direct Clethodim 2EC to onion or garlic until the crop has at least 2 full leaves. 14 day spray intervals are specified between the application of Crop Protect Direct Clethodim 2EC and liquid nitrogen or other herbicide applications. Injury to crop may occur when shorter intervals are observed.
- DO NOT apply more than 14.7 fl. oz./A (0.250 lb. a.i.) per acre per application.
- DO NOT apply more than 7.37 fl. oz. (0.125 lb. a.i.) per acre per application to garlic, shallots, and aerial application to onions.
- DO NOT apply more than 29.5 fl. oz. (0.500 lb. a.i.) per acre per year to garlic, shallots, and aerial application to onions.
- DO NOT apply more than 2 applications at 14.7 fl. oz. (0.250 lb. a.i.) per year to garlic, shallots, and aerial application to onions.
- RTI: For repeat applications, make on a minimum of a 14-day interval.

1 Crop Protect Direct Clethodim 2EC is not to be used on vegetable crops being grown for seed production, unless specific use directions are provided.

<sup>2</sup>Acceptable crop oil concentrates would be those which contain a minimum of 80% oils and 15% emulsifier. A crop oil concentrate must contain either a petroleum or vegetable oil base and must meet all the following criteria: be non-phytotoxic, contain only EPA-exempt ingredients, provide good mixing quality and be successful in local experience. Highly refined vegetable oils have proven more satisfactory than unrefined vegetable oils. Refer to the **ADDITION OF ADJUVANT OR CROP OIL CONCENTRATE** section for further information.

For ground applications to garlic or shallot, **D0 NOT** exceed 7.37 fl. oz./A (0.125 lb. a.i./A) in a single application. For air applications to onion, garlic or shallot, **D0 NOT** exceed 7.37 fl. oz./A (0.125 lb. a.i./A) in a single application. For garlic and shallot, **D0 NOT** exceed 2 applications per year. In CA for air applications to onion, **D0 NOT** exceed 2 applications per year.

4lf Crop Protect Direct Clethodim 2EC is applied as a spot treatment to onion, garlic, or non-bearing food crops, DO NOT exceed the maximum rate allowed on a "per acre" basis.

Crops <sup>1</sup>	Minimum Time from Application to Harvest (PHI)	Use Rates/Acre	Crop Oil Concentrate Rates/Acre <sup>2</sup>
Onion, Green [Subgroup 3-07B]	14 days	5.55 - 7.37 fl. oz.	1% v/v in the finished spray volume.
		(0.094 - 0.125 lb. a.i.)	

#### Restrictions

- **DO NOT** apply more than 7.37 fl. oz. (0.125 lb. a.i.) per acre per application.
- DO NOT apply more than 29.5 fl. oz. (0.500 lb. a.i.) per acre per year.
- DO NOT apply more than 4 applications per acre per year.
- · RTI: For repeat applications, make on a minimum of a 14-day interval.
- For air applications to onion, DO NOT exceed 7.37 fl. oz. (0.125 lb. a.i.) per acre per application.
- In California for air applications to onion, **DO NOT** exceed 2 applications per year.
- If Crop Protect Direct Clethodim 2EC is applied as a spot treatment to onion or garlic, DO NOT exceed the maximum rate allowed on a "per acre" basis.
- In California, DO NOT apply Crop Protect Direct Clethodim 2EC to onion or garlic until the crop has at least 2 full leaves. Use a 14 day spray interval between the
  application of Crop Protect Direct Clethodim 2EC and liquid nitrogen or other herbicide applications. Injury to crop may occur when shorter intervals are observed.

1 Crop Protect Direct Clethodim 2EC is not to be used on vegetable crops being grown for seed production, unless specific use directions are provided.

Crops <sup>1</sup>	Minimum Time from Application to Harvest (PHI)	Use Rates/Acre	Crop Oil Concentrate Rates/Acre <sup>2</sup>
Ornamentals	N/A	5.55 - 14.7 fl. oz. (0.094 - 0.250 lb. a.i.)	Use of crop oil concentrate is not advised since it may injure flowers and
Non-Bearing Food Crops	N/A	5.55 - 7.37 fl. oz. <sup>3</sup> (0.094 - 0.125 lb. a.i.)	foliage. See the below <b>Application Instructions</b> .

Add a non-ionic surfactant containing at least 80% active ingredient at the rate of 1 pt. per 50 gals. (0.25% v/v).

#### Restrictions

- For ornamentals, **DO NOT** apply more than 14.7 fl. oz. (0.250 lb. a.i.) per acre in a single application.
- For non-bearing food crops, DO NOT apply more than 7.37 fl. oz. (0.125 lb. a.i.) per acre in a single application.
- DO NOT apply more than 29.5 fl. oz. (0.500 lb. a.i.) per acre per year.
- DO NOT apply more than 4 applications at the lowest rate, 5.55 fl. oz. (0.094 lb. a.i.), or 2 applications at the highest rate, 14.7 fl. oz. (0.250 lb. a.i.), per year.
- RTI: For repeat applications, make on a minimum of a 14-day interval.
- Sugar maples cannot be tapped for syrup within 1 year of Crop Protect Direct Clethodim 2EC application.

# N/A = Not Applicable

1 Crop Protect Direct Clethodim 2EC is not to be used on vegetable crops being grown for seed production, unless specific use directions are provided.

<sup>2</sup>Acceptable crop oil concentrates would be those which contain a minimum of 80% oils and 15% emulsifier. A crop oil concentrate must contain either a petroleum or vegetable oil base and must meet all the following criteria: be non-phytotoxic, contain only EPA-exempt ingredients, provide good mixing quality and be successful in local experience. Highly refined vegetable oils have proven more satisfactory than unrefined vegetable oils. Refer to the **ADDITION OF ADJUVANT OR CROP OIL CONCENTRATE** section for further information.

3If Crop Protect Direct Clethodim 2EC is applied as a spot treatment to non-bearing food crops, DO NOT exceed the maximum rate allowed on a "per acre" basis.

Crops <sup>1</sup>	Minimum Time from Application to Harvest (PHI)	Use Rates/Acre	Crop Oil Concentrate Rates/Acre <sup>2</sup>
Pea, Dry Shelled [Dry Shelled Pea and Bean (except Soybean) Subgroup 6C], including: Pea (Pisum spp.) Field Pigeon Pea	30 days	5.55 - 7.37 fl. oz. (0.094 - 0.125 lb. a.i.)	1 qt. by ground or 1% v/v (but not less than 1 pt./A) by air. <sup>3</sup>

# Application Instructions:

Apply before bloom but not later than 30 days before harvest.\*

Refer to appropriate Table for reduced rate directions for the control of small annual grasses. The addition of Ammonium Sulfate (AMS) has shown improved grass control for difficult to control species including: quackgrass, rhizome Johnsongrass, red rice, wild oats, volunteer cereals, and volunteer corn.

#### Restrictions

- . \*Applications of Crop Protect Direct Clethodim 2EC to peas during the bloom period could result in severe crop injury, including loss of yield and delayed maturity.
- DO NOT apply more than 7.37 fl. oz. (0.125 lb. a.i.) per acre per application.
- DO NOT apply more than 7.37 fl. oz. (0.125 lb. a.i.) per acre per year.
- DO NOT apply more than 1 application per acre per year.
- RTI: For repeat applications, make on a minimum of a 14-day interval.

1 Crop Protect Direct Clethodim 2EC is not to be used on vegetable crops being grown for seed production, unless specific use directions are provided.

<sup>2</sup>Acceptable crop oil concentrates would be those which contain a minimum of 80% oils and 15% emulsifier. A crop oil concentrate must contain either a petroleum or vegetable oil base and must meet all the following criteria: be non-phytotoxic, contain only EPA-exempt ingredients, provide good mixing quality and be successful in local experience. Highly refined vegetable oils have proven more satisfactory than unrefined vegetable oils. Refer to the **ADDITION OF ADJUVANT OR CROP OIL CONCENTRATE** section for further information.

31 to 2 qts./A of liquid fertilizer (10-34-0, 28%N, or 32%N), or an equivalent amount (2.5 - 4.0 lbs./A) of spray grade ammonium sulfate (AMS) may be added to **Crop Protect Direct Clethodim 2EC** applications, in addition to the specified rate of crop oil concentrate.

Crops <sup>1</sup>	Minimum Time from Application to Harvest (PHI)	Use Rates/Acre	Crop Oil Concentrate Rates/Acre <sup>2</sup>
Pea, Succulent [Succulent Shelled Pea and Bean Subgroup 6B], including: Pea (Pisum spp.) English Garden Green Pigeon Pea	21 days	5.55 - 7.37 fl. oz. (0.094 - 0.125 lb. a.i.)	1 qt. by ground or 1% v/v (but not less than 1 pt./A) by air. <sup>3</sup>

Apply before bloom but not later than 21 days before harvest.\*

Refer to appropriate Table for reduced rate directions for the control of small annual grasses. The addition of Ammonium Sulfate (AMS) has shown improved grass control for difficult to control species including; quackgrass, rhizome Johnsongrass, red rice, wild oats, volunteer cereals, and volunteer corn.

#### Restrictions

- . \*Applications of Crop Protect Direct Clethodim 2EC to peas during the bloom period could result in severe crop injury, including loss of yield and delayed maturity.
- **DO NOT** apply more than 7.37 fl. oz. (0.125 lb. a.i.) per acre per application.
- DO NOT apply more than 7.37 fl. oz. (0.125 lb. a.i.) per acre per year.
- DO NOT apply more than 1 application per acre per year.

1 Crop Protect Direct Clethodim 2EC is not to be used on vegetable crops being grown for seed production, unless specific use directions are provided.

<sup>2</sup>Acceptable crop oil concentrates would be those which contain a minimum of 80% oils and 15% emulsifier. A crop oil concentrate must contain either a petroleum or vegetable oil base and must meet all the following criteria: be non-phytotoxic, contain only EPA-exempt ingredients, provide good mixing quality and be successful in local experience. Highly refined vegetable oils have proven more satisfactory than unrefined vegetable oils. Refer to the **ADDITION OF ADJUVANT OR CROP OIL CONCENTRATE** section for further information.

31 to 2 qts./A of liquid fertilizer (10-34-0, 28%N, or 32%N), or an equivalent amount (2.5 - 4.0 lbs./A) of spray grade ammonium sulfate (AMS) may be added to **Crop Protect Direct Clethodim 2EC** applications, in addition to the specified rate of crop oil concentrate.

Crops <sup>1</sup>	Minimum Time from Application to Harvest (PHI)	Use Rates/Acre	Crop Oil Concentrate Rates/Acre <sup>2</sup>
Peanut (including Perennial)	40 days	5.55 - 14.7 fl. oz. (0.094 - 0.250 lb. a.i.)	1 qt. by ground or 1% v/v (but not less than 1 pt./A) by air. <sup>3</sup>

# Application Instructions:

The addition of Ammonium Sulfate (AMS) has shown improved grass control for difficult to control species including: quackgrass, rhizome Johnsongrass, red rice, wild pats, volunteer cereals, and volunteer corn.

### Restrictions:

- DO NOT apply more than 7.37 fl. oz. (0.125 lb. a.i.) per acre per application.
- DO NOT apply more than 29.5 fl. oz. (0.500 lb. a.i.) per acre per year.
- DO NOT apply more than 4 applications per year.
- RTI: For repeat applications, make on a minimum of a 14-day interval.

1 Crop Protect Direct Clethodim 2EC is not to be used on vegetable crops being grown for seed production, unless specific use directions are provided.

<sup>2</sup>Acceptable crop oil concentrates would be those which contain a minimum of 80% oils and 15% emulsifier. A crop oil concentrate must contain either a petroleum or vegetable oil base and must meet all the following criteria: be non-phytotoxic, contain only EPA-exempt ingredients, provide good mixing quality and be successful in local experience. Highly refined vegetable oils have proven more satisfactory than unrefined vegetable oils. Refer to the **ADDITION OF ADJUVANT OR CROP OIL CONCENTRATE** section for further information.

31 to 2 qts./A of liquid fertilizer (10-34-0, 28%N, or 32%N), or an equivalent amount (2.5 - 4.0 lbs./A) of spray grade ammonium sulfate (AMS) may be added to **Crop Protect Direct Clethodim 2EC** applications, in addition to the specified rate of crop oil concentrate.

Crops <sup>1</sup>	Minimum Time from Application to Harvest (PHI)	Use Rates/Acre	Crop Oil Concentrate Rates/Acre <sup>2</sup>
[Crop Group 11-10] Pome Fruit, including: Apple Azarole Crabapple Loquat Mayhaw Medlar Pear Asian Quince Quince, Chinese Quince, Japanese Tejecote	40 days	3.7 - 7.37 fl. oz. (0.065 - 0.125 lb. a.i.)	Non-ionic surfactant (NIS) at 0.25% v/v.

- DO NOT apply more than 7.37 fl. oz. (0.125 lb. a.i.) per acre per application.
- **DO NOT** apply more than 29.5 fl. oz. (0.500 lb. a.i.) per acre per year.
- DO NOT apply more than 4 applications per year.
- RTI: For repeat applications, make on a minimum of a 14-day interval.

1 Crop Protect Direct Clethodim 2EC is not to be used on vegetable crops being grown for seed production, unless specific use directions are provided.

Acceptable crop oil concentrates would be those which contain a minimum of 80% oils and 15% emulsifier. A crop oil concentrate must contain either a petroleum or vegetable oil base and must meet all the following criteria: be non-phytotoxic, contain only EPA-exempt ingredients, provide good mixing quality and be successful in local experience. Highly refined vegetable oils have proven more satisfactory than unrefined vegetable oils. Refer to the ADDITION OF ADJUVANT OR CROP OIL CONCENTRATE section for further information.

Crops <sup>1</sup>	Minimum Time from Application to Harvest (PHI)	Use Rates/Acre	Crop Oil Concentrate Rates/Acre <sup>2</sup>
Potato	30 days	5.55 - 14.7 fl. oz. (0.094 - 0.250 lb. a.i.)	1 qt. by ground or 1% v/v (but not less than 1 pt./A) by air.3

# Application Instructions:

The addition of Ammonium Sulfate (AMS) has shown improved grass control for difficult to control species including: quackgrass, rhizome Johnsongrass, red rice, wild oats, volunteer cereals, and volunteer corn.

#### Restrictions:

- DO NOT apply more than 14.7 fl. oz. (0.250 lb. a.i.) per acre per application.
- DO NOT apply more than 29.5 fl. oz. (0.500 lb. a.i.) per acre per year.
- DO NOT apply more than 4 applications at the lowest rate, 5.55 fl. oz. (0.094 lb. a.i.), or 2 applications at the highest rate, 14.7 fl. oz. (0.250 lb. a.i.), per year.
- RTI: For repeat applications, make on a minimum of a 14-day interval.

1 Crop Protect Direct Clethodim 2EC is not to be used on vegetable crops being grown for seed production, unless specific use directions are provided.

Acceptable crop oil concentrates would be those which contain a minimum of 80% oils and 15% emulsifier. A crop oil concentrate must contain either a petroleum or vegetable oil base and must meet all the following criteria: be non-phytotoxic, contain only EPA-exempt ingredients, provide good mixing quality and be successful in local experience. Highly refined vegetable oils have proven more satisfactory than unrefined vegetable oils. Refer to the **ADDITION OF ADJUVANT OR CROP OIL CONCENTRATE** section for further information.

31 to 2 qts./A of liquid fertilizer (10-34-0, 28%N), or 32%N), or an equivalent amount (2.5 - 4.0 lbs./A) of spray grade ammonium sulfate (AMS) may be added to **Crop Protect Direct Clethodim 2EC** applications, in addition to the specified rate of crop oil concentrate.

Crops <sup>1</sup>	Minimum Time from Application to Harvest (PHI)	Use Rates/Acre	Crop Oil Concentrate Rates/Acre <sup>2</sup>
Radish	15 days	5.55 - 7.37 fl. oz. (0.094 - 0.125 lb. a.i.)	1% v/v in the finished spray volume.

- DO NOT apply more than 7.37 fl. oz. (0.125 lb. a.i.) per acre per application.
- DO NOT apply more than 14.7 fl. oz. (0.250 lb. a.i.) per acre per year.
- DO NOT apply more than 2 applications per acre per year.
- RTI: For repeat applications, make on a minimum of a 14-day interval.

1 Crop Protect Direct Clethodim 2EC is not to be used on vegetable crops being grown for seed production, unless specific use directions are provided.

<sup>2</sup>Acceptable crop oil concentrates would be those which contain a minimum of 80% oils and 15% emulsifier. A crop oil concentrate must contain either a petroleum or vegetable oil base and must meet all the following criteria: be non-phytotoxic, contain only EPA-exempt ingredients, provide good mixing quality and be successful in local experience. Highly refined vegetable oils have proven more satisfactory than unrefined vegetable oils. Refer to the **ADDITION OF ADJUVANT OR CROP OIL CONCENTRATE** section for further information.

Crops <sup>1</sup>	Minimum Time from Application to Harvest (PHI)	Use Rates/Acre	Crop Oil Concentrate Rates/Acre <sup>2</sup>
Root Vegetables (except Radish	30 days	5.55 - 7.37 fl. oz.	1% v/v in the finished spray volume.
and Sugar Beet) [Subgroup 1B],	-	(0.094 - 0.125 lb. a.i.)	
including:			
Beet, Garden			
Burdock, Edible			
Carrot			
Celeriac			
Chervil, Turnip-Rooted			
Chicory			
Ginseng			
Horseradish			
Parsley, Turnip-Rooted			
Parsnip Radish, Oriental			
Rutabaga			
Salsify,			
Black			
Spanish			
Skirret			
Turnip			

# Restrictions:

- DO NOT apply more than 7.37 fl. oz. (0.125 lb. a.i.) per acre per application.
- **DO NOT** apply more than 29.5 fl. oz. (0.500 lb. a.i.) per acre per year.
- . DO NOT apply more than 4 applications at per acre per year.
- RTI: For repeat applications, make on a minimum of a 14-day interval.

1 Crop Protect Direct Clethodim 2EC is not to be used on vegetable crops being grown for seed production, unless specific use directions are provided.

Crops <sup>1</sup>	Minimum Time from Application to Harvest (PHI)	Use Rates/Acre	Crop Oil Concentrate Rates/Acre <sup>2</sup>
Safflower	70 days	5.55 - 7.37 fl. oz. (0.094 - 0.125 lb. a.i.)	1% v/v in the finished spray volume.

- DO NOT apply more than 7.37 fl. oz. (0.125 lb. a.i.) per acre per application.
- DO NOT apply more than 29.5 fl. oz. (0.500 lb. a.i.) per acre per year.
- DO NOT apply more than 4 applications at per acre per year.
- RTI: For repeat applications, make on a minimum of a 14-day interval.

1 Crop Protect Direct Clethodim 2EC is not to be used on vegetable crops being grown for seed production, unless specific use directions are provided.

<sup>2</sup>Acceptable crop oil concentrates would be those which contain a minimum of 80% oils and 15% emulsifier. A crop oil concentrate must contain either a petroleum or vegetable oil base and must meet all the following criteria: be non-phytotoxic, contain only EPA-exempt ingredients, provide good mixing quality and be successful in local experience. Highly refined vegetable oils have proven more satisfactory than unrefined vegetable oils. Refer to the **ADDITION OF ADJUVANT OR CROP OIL CONCENTRATE** section for further information.

Crops <sup>1</sup>	Minimum Time from Application to Harvest (PHI)	Use Rates/Acre	Crop Oil Concentrate Rates/Acre <sup>2</sup>
Sesame	14 days	5.55 - 7.37 fl. oz. (0.094 - 0.125 lb. a.i.)	1% v/v in the finished spray volume.

#### Restrictions:

- DO NOT apply more than 7.37 fl. oz. (0.125 lb. a.i.) per acre per application.
- DO NOT apply more than 29.5 fl. oz. (0.500 lb. a.i.) per acre per year.
- DO NOT apply more than 4 applications per acre per year.
- RTI: For repeat applications, make on a minimum of a 14-day interval.
- . DO NOT apply during flowering.

1 Crop Protect Direct Clethodim 2EC is not to be used on vegetable crops being grown for seed production, unless specific use directions are provided.

<sup>2</sup>Acceptable crop oil concentrates would be those which contain a minimum of 80% oils and 15% emulsifier. A crop oil concentrate must contain either a petroleum or vegetable oil base and must meet all the following criteria: be non-phytotoxic, contain only EPA-exempt ingredients, provide good mixing quality and be successful in local experience. Highly refined vegetable oils have proven more satisfactory than unrefined vegetable oils. Refer to the **ADDITION OF ADJUVANT OR CROP OIL CONCENTRATE** section for further information.

Crops <sup>1</sup>	Minimum Time from Application to Harvest (PHI)	Use Rates/Acre	Crop Oil Concentrate Rates/Acre <sup>2</sup>
Soybean	60 days	5.55 - 14.7 fl. oz. (0.094 - 0.250 lb. a.i.)	1 qt. by ground or 1% v/v (but not less than 1 pt./A) by air. <sup>3</sup>

# Application Instructions:

Refer to appropriate Table for reduced rate directions for the control of small annual grasses. The addition of Ammonium Sulfate (AMS) has shown improved grass control for difficult to control species including; quackgrass, rhizome Johnsongrass, red rice, wild oats, volunteer cereals, and volunteer corn.

# Restrictions:

- **DO NOT** apply more than 14.7 fl. oz. (0.250 lb. a.i.) per acre per application.
- DO NOT apply more than 29.5 fl. oz. (0.500 lb. a.i.) per acre per year.
- DO NOT apply more than 4 applications at the lowest rate, 5.55 fl. oz. (0.094 lb. a.i.), or 2 applications at the highest rate, 14.7 fl. oz. (0.250 lb. a.i.), per year.
- RTI: For repeat applications, make on a minimum of a 14-day interval.
- DO NOT graze treated fields or feed treated forage or hay to livestock.

1Crop Protect Direct Clethodim 2EC is not to be used on vegetable crops being grown for seed production, unless specific use directions are provided.

<sup>2</sup>Acceptable crop oil concentrates would be those which contain a minimum of 80% oils and 15% emulsifier. A crop oil concentrate must contain either a petroleum or vegetable oil base and must meet all the following criteria: be non-phytotoxic, contain only EPA-exempt ingredients, provide good mixing quality and be successful in local experience. Highly refined vegetable oils have proven more satisfactory than unrefined vegetable oils. Refer to the ADDITION OF ADJUVANT OR CROP OIL CONCENTRATE section for further information.

31 to 2 qts./A of liquid fertilizer (10-34-0, 28%N, or 32%N), or an equivalent amount (2.5 - 4.0 lbs./A) of spray grade ammonium sulfate (AMS) may be added to **Crop Protect Direct Clethodim 2EC** applications, in addition to the specified rate of crop oil concentrate.

Crops <sup>1</sup>	Minimum Time from Application to Harvest (PHI)	Use Rates/Acre	Crop Oil Concentrate Rates/Acre <sup>2</sup>
Squash and Cucumbers [Subgroup 9B], including: Chayote (Fruit) Chinese Waxgourd Cucumber Gherkin Gourd, Edible Momordica spp. Pumpkin Squash (Summer and Winter)	14 days	5.55 - 7.37 fl. oz. (0.094 - 0.125 lb. a.i.)	1% v/v in the finished spray volume.

- DO NOT apply more than 7.37 fl. oz. (0.125 lb. a.i.) per acre per application.
- DO NOT apply more than 29.5 fl. oz. (0.500 lb. a.i.) per acre per year.
- . DO NOT apply more than 4 applications per acre per year.
- RTI: For repeat applications, make on a minimum of a 14-day interval.

1Crop Protect Direct Clethodim 2EC is not to be used on vegetable crops being grown for seed production, unless specific use directions are provided.

<sup>2</sup>Acceptable crop oil concentrates would be those which contain a minimum of 80% oils and 15% emulsifier. A crop oil concentrate must contain either a petroleum or vegetable oil base and must meet all the following criteria: be non-phytotoxic, contain only EPA-exempt ingredients, provide good mixing quality and be successful in local experience. Highly refined vegetable oils have proven more satisfactory than unrefined vegetable oils. Refer to the ADDITION OF ADJUVANT OR CROP OIL CONCENTRATE section for further information.

Crops <sup>1</sup>	Minimum Time from Application to Harvest (PHI)	Use Rates/Acre	Crop Oil Concentrate Rates/Acre <sup>2</sup>
Stalk and Stem Vegetable	1 day	5.55 - 7.37 fl. oz.	1% v/v in the finished spray volume.
[Subgroup 22A]		(0.094 - 0.125 lb. a.i.)	
Agave			
Aloe Vera			
Asparagus			
Bamboo Shoots			
Celtuce			
Fennel, Florence			
(Fresh Leaves and Stalk)			
Fern, Fiddlehead (Edible)			
Kale, Sea			
Kohlrabi			
Palm Hearts			
Prickly Pear (Pads)			
Prickly Pear, Texas (Pads)			
Cultivars, varieties, and/or hybrids of			
these commodities			

# Restrictions:

- DO NOT apply more than 7.37 fl. oz. (0.125 lb. a.i.) per acre per application.
- DO NOT apply more than 14.7 fl. oz. (0.250 lb. a.i.) per acre per year.
- DO NOT apply more than 2 applications per acre per year.
- RTI: For repeat applications, make on a minimum of a 14-day interval.

1Crop Protect Direct Clethodim 2EC is not to be used on vegetable crops being grown for seed production, unless specific use directions are provided.

Crops <sup>1</sup>	Minimum Time from Application to Harvest (PHI)	Use Rates/Acre	Crop Oil Concentrate Rates/Acre <sup>2</sup>
Stevia, Dried Leaves	14 days	3.7 - 7.37 fl. oz. (0.0625 - 0.125 lb. a.i.)	Non-ionic Surfactant (NIS) at 0.25% v/v.

Crop Protect Direct Clethodim 2EC has not been tested on all varieties. It is the responsibility of the user to test Crop Protect Direct Clethodim 2EC on a small portion of the crop to be treated before treating the entire field.

Verify crop safety to Crop Protect Direct Clethodim 2EC on a small area of the crop, at the desired Crop Protect Direct Clethodim 2EC rate and with the same non-ionic surfactant (NIS) that will be used on the field. In or crop response is evident 7 days after treatment, Crop Protect Direct Clethodim 2EC may be used on the entire field at the rate tested and with the same NIS used in the crop safety test.

# Restrictions:

- DO NOT apply more than 7.37 fl. oz. (0.125 lb. a.i.) per acre per application.
- **DO NOT** apply more than 29.5 fl. oz. (0.500 lb. a.i.) per acre per year.
- **DO NOT** apply more than 4 applications per acre per year.
- RTI: For repeat applications, make on a minimum of a 14-day interval.

1 Crop Protect Direct Clethodim 2EC is not to be used on vegetable crops being grown for seed production, unless specific use directions are provided.

<sup>2</sup>Acceptable crop oil concentrates would be those which contain a minimum of 80% oils and 15% emulsifier. A crop oil concentrate must contain either a petroleum or vegetable oil base and must meet all the following criteria: be non-phytotoxic, contain only EPA-exempt ingredients, provide good mixing quality and be successful in local experience. Highly refined vegetable oils have proven more satisfactory than unrefined vegetable oils. Refer to the ADDITION OF ADJUVANT OR CROP OIL CONCENTRATE section for further information.

Crops <sup>1</sup>	Minimum Time from Application to Harvest (PHI)	Use Rates/Acre	Crop Oil Concentrate Rates/Acre <sup>2</sup>
Stone Fruit [Group 12-12],	14 days	3.7 - 7.37 fl. oz.	Non-ionic Surfactant (NIS) at 0.25% v/v.
including:		(0.063 - 0.125 lb. a.i.)	
Apricot			
Apricot, Japanese			
Capulin			
Cherry, Black			
Cherry, Nanking			
Cherry, Sweet			
Cherry, Tart			
Jujube, Chinese			
Nectarine			
Peach			
Plum			
Plum, American			
Plum, Beach			
Plum, Canada			
Plum, Cherry			
Plum, Chickasaw			
Plum, Damson			
Plum, Japanese			
Plum, Klamath Plum, Prune			
Plumcot			
Sloe			
Cultivars, varieties, and/or hybrids			
of these.			

## Restrictions:

- DO NOT apply more than 7.37 fl. oz. (0.125 lb. a.i.) per acre per application.
- DO NOT apply more than 29.5 fl. oz. (0.500 lb. a.i.) per acre per year.
- DO NOT apply more than 4 applications per acre per year.
- . RTI: For repeat applications, make on a minimum of a 14-day interval.

1 Crop Protect Direct Clethodim 2EC is not to be used on vegetable crops being grown for seed production, unless specific use directions are provided.

Crops <sup>1</sup>	Minimum Time from Application to Harvest (PHI)	Use Rates/Acre	Crop Oil Concentrate Rates/Acre <sup>2</sup>
Strawberry	4 days	5.55 - 7.37 fl. oz. (0.094 - 0.125 lb. a.i.)	1% v/v in the finished spray volume.

- DO NOT apply more than 7.37 fl. oz. (0.125 lb. a.i.) per acre per application.
- DO NOT apply more than 29.5 fl. oz. (0.500 lb. a.i.) per acre per year.
- **DO NOT** apply more than 4 applications per acre per year.
- RTI: For repeat applications, make on a minimum of a 14-day interval.

1 Crop Protect Direct Clethodim 2EC is not to be used on vegetable crops being grown for seed production, unless specific use directions are provided.

<sup>2</sup>Acceptable crop oil concentrates would be those which contain a minimum of 80% oils and 15% emulsifier. A crop oil concentrate must contain either a petroleum or vegetable oil base and must meet all the following criteria: be non-phytotoxic, contain only EPA-exempt ingredients, provide good mixing quality and be successful in local experience. Highly refined vegetable oils have proven more satisfactory than unrefined vegetable oils. Refer to the **ADDITION OF ADJUVANT OR CROP OIL CONCENTRATE** section for further information.

Crops <sup>1</sup>	Minimum Time from Application to Harvest (PHI)	Use Rates/Acre	Crop Oil Concentrate Rates/Acre <sup>2</sup>
Sugar Beet	40 days	5.55 - 14.7 fl. oz. (0.094 - 0.250 lb. a.i.)	1 qt. by ground or 1% v/v (but not less than 1 pt./A) by air. <sup>3</sup>

# **Application Instructions:**

Refer to appropriate Table for reduced rate directions for the control of small annual grasses. The addition of Ammonium Sulfate (AMS) has shown improved grass control for difficult to control species including: quackgrass, rhizome Johnsongrass, red rice, wild oats, volunteer cereals, and volunteer corn.

## Restrictions:

- DO NOT apply more than 14.7 fl. oz. (0.250 lb. a.i.) per acre per application.
- DO NOT apply more than 29.5 fl. oz. (0.500 lb. a.i.) per acre per year.
- DO NOT apply more than 4 applications at the lowest rate, 5.55 fl. oz. (0.094 lb. a.i.), or 2 applications at the highest rate, 14.7 fl. oz. (0.250 lb. a.i.), per year.
- . RTI: For repeat applications, make on a minimum of a 14-day interval.

1 Crop Protect Direct Clethodim 2EC is not to be used on vegetable crops being grown for seed production, unless specific use directions are provided.

<sup>2</sup>Acceptable crop oil concentrates would be those which contain a minimum of 80% oils and 15% emulsifier. A crop oil concentrate must contain either a petroleum or vegetable oil base and must meet all the following criteria: be non-phytotoxic, contain only EPA-exempt ingredients, provide good mixing quality and be successful in local experience. Highly refined vegetable oils have proven more satisfactory than unrefined vegetable oils. Refer to the **ADDITION OF ADJUVANT OR CROP OIL CONCENTRATE** section for further information.

31 to 2 qts./A of liquid fertilizer (10-34-0, 28%N, or 32%N), or an equivalent amount (2.5 - 4.0 lbs./A) of spray grade ammonium sulfate (AMS) may be added to Crop Protect Direct Clethodim 2EC applications, in addition to the specified rate of crop oil concentrate.

Crops <sup>1</sup>	Minimum Time from Application to Harvest (PHI)	Use Rates/Acre	Crop Oil Concentrate Rates/Acre <sup>2</sup>
Sunflower (except Safflower) [Subgroup 20B], including: Calendula Castor Oil Plant Chinese Tallowtree Euphorbia Evening Primrose Jojoba Niger Seed Rose Hip Stokes Aster Tallowwood Tea Oil Plant Vernonia Cultivars, varieties, and/or hybrids of these.	70 days	5.55 - 14.7 fl. oz. (0.094 - 0.250 ib. a.i.)	1 qt. by ground or 1% v/v (but not less than 1 pt./A) by air. <sup>3</sup>

The addition of Ammonium Sulfate (AMS) has shown improved grass control for difficult to control species including: quackgrass, rhizome Johnsongrass, red rice, wild oats, volunteer cereals, and volunteer corn. Verify crop sensitivity to **Crop Protect Direct Clethodim 2EC** on a small area of the crop at the desired **Crop Protect Direct Clethodim 2EC** and and with the same crop oil that will be used on the field. If no crop response is evident 7 days after treatment, **Crop Protect Direct Clethodim 2EC** may be used on the entire field at the rate tested and with the same crop oil used in the sensitivity test.

# Restrictions:

- DO NOT apply more than 14.7 fl. oz. (0.250 lb. a.i.) per acre per application.
- DO NOT apply more than 29.5 fl. oz. (0.500 lb. a.i.) per acre per year.
- DO NOT apply more than 4 applications at the lowest rate, 5.55 fl. oz. (0.094 lb. a.i.), or 2 applications at the highest rate, 14.7 fl. oz. (0.250 lb. a.i.), per year.
- RTI: For repeat applications, make on a minimum of a 14-day interval.

1 Crop Protect Direct Clethodim 2EC is not to be used on vegetable crops being grown for seed production, unless specific use directions are provided.

<sup>2</sup>Acceptable crop oil concentrates would be those which contain a minimum of 80% oils and 15% emulsifier. A crop oil concentrate must contain either a petroleum or vegetable oil base and must meet all the following criteria: be non-phytotoxic, contain only EPA-exempt ingredients, provide good mixing quality and be successful in local experience. Highly refined vegetable oils have proven more satisfactory than unrefined vegetable oils. Refer to the **ADDITION OF ADJUVANT OR CROP OIL CONCENTRATE** section for further information.

31 to 2 qts./A of liquid fertilizer (10-34-0, 28%N, or 32%N), or an equivalent amount (2.5 - 4.0 lbs./A) of spray grade ammonium sulfate (AMS) may be added to **Crop Protect Direct Clethodim 2EC** applications, in addition to the specified rate of crop oil concentrate.

Crops <sup>1</sup>	Minimum Time from Application to Harvest (PHI)	Use Rates/Acre	Crop Oil Concentrate Rates/Acre <sup>2</sup>
Tuberous and Corm Vegetables	30 days	5.55 - 14.7 fl. oz.	1% v/v in the finished spray volume.
(except Potato) [Subgroup 1C],		(0.094 - 0.250 lb. a.i.)	
including:			
Arracacha			
Arrowroot			
Artichoke,			
Chinese			
Jerusalem			
Canna, Edible			
Cassava,			
Bitter			
Sweet			
Chayote (Root)			
Chufa			
Dasheen			
Ginger			
Leren			
Sweet Potato			
Tanier			
Tumeric			
Yam Bean			
Yam, True			

The addition of Ammonium Sulfate (AMS) has shown improved grass control for difficult to control species including: quackgrass, rhizome Johnsongrass, red rice, wild pats, volunteer cereals, and volunteer corn.

### Restrictions:

- **DO NOT** apply more than 14.7 fl. oz. (0.250 lb. a.i.) per acre per application.
- DO NOT apply more than 29.5 fl. oz. (0.500 lb. a.i.) per acre per year.
- DO NOT apply more than 4 applications at the lowest rate, 5.55 fl. oz. (0.094 lb. a.i.), or 2 applications at the highest rate, 14.7 fl. oz. (0.250 lb. a.i.), per year.
- RTI: For repeat applications, make on a minimum of a 14-day interval.

1 Crop Protect Direct Clethodim 2EC is not to be used on vegetable crops being grown for seed production, unless specific use directions are provided.

<sup>2</sup>Acceptable crop oil concentrates would be those which contain a minimum of 80% oils and 15% emulsifier. A crop oil concentrate must contain either a petroleum or vegetable oil base and must meet all the following criteria: be non-phytotoxic, contain only EPA-exempt ingredients, provide good mixing quality and be successful in local experience. Highly refined vegetable oils have proven more satisfactory than unrefined vegetable oils. Refer to the **ADDITION OF ADJUVANT OR CROP OIL CONCENTRATE** section for further information.

Crops <sup>1</sup>	Minimum Time from Application to Harvest (PHI)	Use Rates/Acre	Crop Oil Concentrate Rates/Acre <sup>2</sup>
Tomato	20 days	5.55 - 14.7 fl. oz. (0.094 - 0.250 lb. a.i.)	1% v/v in the finished spray volume.

#### Restrictions:

- DO NOT apply more than 14.7 fl. oz. (0.250 lb. a.i.) per acre per application.
- DO NOT apply more than 29.5 fl. oz. (0.500 lb. a.i.) per acre per year.
- DO NOT apply more than 4 applications at the lowest rate, 5.55 fl. oz. (0.094 lb. a.i.), or 2 applications at the highest rate, 14.7 fl. oz. (0.250 lb. a.i.), per year.
- RTI: For repeat applications, make on a minimum of a 14-day interval.

1 Crop Protect Direct Clethodim 2EC is not to be used on vegetable crops being grown for seed production, unless specific use directions are provided.

Crops <sup>1</sup>	Minimum Time from Application to Harvest (PHI)	Use Rates/Acre	Crop Oil Concentrate Rates/Acre <sup>2</sup>
Crops¹  Tree Nuts [Crop Group 14-12], Including: African Nut-Tree Almond Beechnut Brazil Nut Brazilian Pine Bunya Bur Oak Butternut Cajou Nut Candlenut Cashew Chestnut Chiquapin Coconut Coquito Nut Dika Nut Ginkgo Guiana Chestnut Hazelnut (Filbert) Heartnut Hickory Nut Japanese Horse-Chestnut Macadamia Nut	Minimum Time from Application to Harvest (PHI)  14 days	Use Rates/Acre 5.55 - 7.37 fl. oz. (0.094 - 0.125 lb. a.i.)	
Macadamia Nut Mongongo Nut Monkey-Pot Monkey Puzzle Nut Okari Nut Pachira Nut Pachira Nut Pachira Nut Pecan Pequi Pili Nut Pistachio Sapucaia Nut Tropical Almond Walnut, Black Walnut, Black Walnut, English Yellowhorn Cultivars, varieties, and/or hybrids of these.			

- DO NOT apply more than 7.37 fl. oz. (0.125 lb. a.i.) per acre per application.
- DO NOT apply more than 29.5 fl. oz. (0.500 lb. a.i.) per acre per year.
- DO NOT apply more than 4 applications per year.
- RTI: For repeat applications, make on a minimum of a 14-day interval.

1 Crop Protect Direct Clethodim 2EC is not to be used on vegetable crops being grown for seed production, unless specific use directions are provided.

Crops <sup>1</sup>	Minimum Time from Application to Harvest (PHI)	Use Rates/Acre	Crop Oil Concentrate Rates/Acre <sup>2</sup>
Turnip Greens	14 days	5.55 - 7.37 fl. oz. (0.094 - 0.125 lb. a.i.)	1% v/v in the finished spray volume.

- DO NOT apply more than 7.37 fl. oz. (0.125 lb. a.i.) per acre per application.
- DO NOT apply more than 29.5 fl. oz. (0.500 lb. a.i.) per acre per year.
- **DO NOT** apply more than 4 applications per year.
- RTI: For repeat applications, make on a minimum of a 14-day interval.

1 Crop Protect Clethodim 2EC is not to be used on vegetable crops being grown for seed production, unless specific use directions are provided.

<sup>2</sup>Acceptable crop oil concentrates would be those which contain a minimum of 80% oils and 15% emulsifier. A crop oil concentrate must contain either a petroleum or vegetable oil base and must meet all the following criteria: be non-phytotoxic, contain only EPA-exempt ingredients, provide good mixing quality and be successful in local experience. Highly refined vegetable oils have proven more satisfactory than unrefined vegetable oils. Refer to the **ADDITION OF ADJUVANT OR CROP OIL CONCENTRATE** section for further information.

Crops <sup>1</sup>	Minimum Time from Application to Harvest (PHI)	Use Rates/Acre	Crop Oil Concentrate Rates/Acre <sup>2</sup>
Watercress	30 days	5.55 - 7.37 fl. oz.	1% v/v in the finished spray volume.
(Not registered for use in California.)		(0.094 - 0.125 lb. a.i.)	

# Restrictions:

- DO NOT apply more than 7.37 fl. oz. (0.125 lb. a.i.) per acre per application.
- DO NOT apply more than 29.5 fl. oz. (0.500 lb. a.i.) per acre per year.
- DO NOT apply more than 4 applications per year.
- DO NOT apply when watercress is under flood conditions.
- DO NOT apply Crop Protect Direct Clethodim 2EC when water is in the field and hold water for at least 24 hours after an application.
- RTI: For repeat applications, make on a minimum of a 14-day interval.

1Crop Protect Direct Clethodim 2EC is not to be used on vegetable crops being grown for seed production, unless specific use directions are provided.

Acceptable crop oil concentrates would be those which contain a minimum of 80% oils and 15% emulsifier. A crop oil concentrate must contain either a petroleum or vegetable oil base and must meet all the following criteria: be non-phytotoxic, contain only EPA-exempt ingredients, provide good mixing quality and be successful in local experience. Highly refined vegetable oils have proven more satisfactory than unrefined vegetable oils. Refer to the ADDITION OF ADJUVANT OR CROP OIL CONCENTRATE section for further information.

# IMPORTANT

Plant resistance to **Crop Protect Direct Clethodim 2EC** at labeled rates has been found to be acceptable for the indicated genera and species listed below. Due to variability within species, crop growth stage, environmental conditions, and application techniques, it is advised that the user determine if the herbicide can be used safely on a few plants before widespread application. Neither the seller nor the manufacturer of **Crop Protect Direct Clethodim 2EC** have investigated the safety factor to plants not listed on the label.

# NON-BEARING FOOD CROPS

# Restrictions:

- . DO NOT apply Crop Protect Direct Clethodim 2EC to non-bearing fruit or nut crops which are grown for root stock.
- **DO NOT** apply more than 7.37 fl. oz. (0.125 lb. a.i.) per acre in a single application.
- DO NOT apply more than 29.5 fl. oz. (0.500 lb. a.i.) per acre per year.
- DO NOT apply more than 4 applications at 3.7 7.37 fl. oz. per year.
- RTI: For repeat application, make on a minimum of a 14-day interval.

Crop injury to non-bearing fruit and nut crops can occur if **Crop Protect Direct Clethodim 2EC** is improperly applied. **DO NOT** apply **Crop Protect Direct Clethodim 2EC** directly over the top of these plant types. Instead, direct spray at the base of the plant where grassy weeds are growing near the ground.

Non-bearing fruit and nut crops are plants which will not bear fruit or nuts for at least 1 year following Crop Protect Direct Clethodim 2EC application.

Common Name	Scientific Name
Apples	Malus spp.
Berries	Vaccinium spp. Rubus spp.
Cherry, Sweet	Prunus avium
Citrus Fruits	Citrus spp.
Grapes	Vitis spp.
Olives	Olea spp.
Peach	Prunus persica
Pears	Pyrus communis
Prunes	Prunus spp.
Stone Fruits	Prunus spp.
Strawberries	Fragaria spp.
Tree Nuts	
Almond	Prunus triloba
Filbert	Corylus maxima
Pecan	Carya illinoinensis
Pistachio	Pistacia vera
Walnut	Juglans spp.

Use Rates Per Acre: 5.55 - 7.37 fl. oz. (0.094 - 0.125 lb. a.i./A)

# **Use Instructions**

Add a non-ionic surfactant containing at least 80% active ingredient at the rate of 1 pt. per 50 gals. (0.25% v/v).

Use of crop oil concentrate is not advised since it may injure flowers and foliage.

Sugar maples cannot be tapped for syrup within one year of Crop Protect Direct Clethodim 2EC application.

# CONIFER TREES

Crop Protect Direct Clethodim 2EC can be used to control labeled grasses in Christmas tree farms, conifer nurseries, and conifer plantations (but not in forests).

Common Name	Scientific Name	
Arborvitae, American	Thuja occidentalis	
Cedars	Cedrus spp.	
Cypress	Taxodium spp.	
Fir, Douglas	Pseudotsuga menziesii	
Firs	Abies spp.	
Hemlock, Canadian/Eastern	Tsuga Canadensis	
Hemlock, Western	Tsuga heterophylla	
Pines	Pinus spp.	
Spruces	Picea spp.	
Yew	Taxus spp.	

Use Rates per Acre: 5.55 - 14.7 fl. oz. (0.094 - 0.125 lb. a.i./A)

# Special Use Instructions

Add a non-ionic surfactant containing at least 80% active ingredient at the rate of 1 pt. per 50 gals. (0.25% v/v).

#### Restrictions

- DO NOT apply more than 14.7 fl. oz./A (0.25 lb. a.i.) per application.
- DO NOT make more than 2 applications per acre per year at the 14.7 fl. oz. (0.25 lb. a.i./A) rate. Do not make more than 5 applications per acre per year at the 5.55 fl. oz. (0.094 lb. a.i./A) rate.
- DO NOT apply more than 29.5 fl. oz./A (0.5 lb. a.i./A) per year.
- RTI: For repeat applications, make on a minimum of a 14-day interval.

#### DIRECTIONS FOR NON-CROP OR NON-PLANTED AREAS

The following areas are considered non-crop or non-planted areas: rights-of-way including railroads, highways, roads, dividers, medians, pipelines, public utility lines, pumping stations, transformer stations and substations. Around airports, electric utilities, commercial buildings, manufacturing plants, storage yards, rail yards, fence lines, parkways, and post-harvest croolands. Also beneath preenhouse benches and around oolf courses.

DIRECTIONS FOR GRASS SUPPRESSION IN NON-CROP AREAS WITH CROP PROTECT DIRECT CLETHODIM 2EC				
Grass Species Weed Stage Rate FI. Oz./Acre High Rate				
Annual and perennial grasses that exceed height claimed for control on height charts above.	Up to and including grasses in the seed head stage.	11.08 (0.188 lb. a.i.)	14.7 (0.250 lb. a.i.)	

Add a crop oil concentrate at 1 gt./A by ground to the finished spray volume.

#### Restrictions:

- DO NOT apply as part of a tank mix when applying Crop Protect Direct Clethodim 2EC for grass suppression.
- DO NOT apply more than 14.7 fl. oz. (0.250 lb. a.i.) per acre per application.
- DO NOT apply more than 59.0 fl. oz. (1.000 lb. a.i.) per acre per year.
- **DO NOT** apply more than 4 applications at 11.08 14.7 fl. oz. per year.
- . RTI: For repeat applications, make on a minimum of a 14-day interval.

# DIRECTIONS FOR ANNUAL GRASSES (EXCEPT FOR IN ESTABLISHED ALFALFA AND PEPPERMINT AND SPEARMINT TOPS)

Apply only to actively growing grasses at listed weed heights. Apply when the first grass weed species in a mixed grass weed population reaches the listed growth stage for treatment. Use the high rate under heavy grass pressure and/or when grasses are at maximum height.

#### Restrictions

- DO NOT exceed the maximum per application rate listed in the table, CROP SPECIFIC RESTRICTIONS AND LIMITATIONS FOR CROP PROTECT DIRECT CLETHODIM 2FC.
- DO NOT exceed the maximum yearly rate listed in the table, CROP SPECIFIC RESTRICTIONS AND LIMITATIONS FOR CROP PROTECT DIRECT CLETHODIM 2EC.
- DO NOT exceed the maximum number of annual applications listed in the table, CROP SPECIFIC RESTRICTIONS AND LIMITATIONS FOR CROP PROTECT DIRECT CLETHODIM 2EC.

Grass Species	Scientific Name	Weed Height* (Inches)	Rate Fl. Oz./Acre <sup>1</sup>	High Rate <sup>2</sup>
Barnyardgrass	Echinochloa crus-galli	2 to 8	5.55	7.37
Broadleaf Signalgrass	Brachiaria platyphylla	2 to 6	5.55	7.37
Brome				
California	Bromus carinatus	2 to 6	5.55	7.37
Cheat	Bromus secalinus	2 to 6	5.55	7.37
Downy	Bromus tectorum	2 to 6	5.55	7.37
Ripgut	Bromus diandrus	2 to 6	5.55	7.37
Canarygrass	Phalaris canariensis	1 to 4	5.55	7.37
Crabgrass				
Hairy	Digitaria adscendens	2 to 6**	5.55	7.37
Large	Digitaria sanguinalis	2 to 6**	5.55	7.37
Smooth	Digitaria ischaemum	2 to 6**	5.55	7.37
Southern	Digitaria ciliaris	2 to 6**	5.55	7.37
Crowfootgrass	Dactyloctenium aegyptium	2 to 6**	5.55	7.37
Fall Panicum	Panicum dichotomiflorum	2 to 8	5.55	7.37
Field Sandbur	Cenchrus incertus	2 to 6	5.55	7.37
Foxtail				
Giant	Setaria faberi	2 to 12	5.55	7.37
Green	Setaria viridis	2 to 8	5.55	7.37
Yellow	Setaria glauca	2 to 8	5.55	7.37

(continued)

#### DIRECTIONS FOR ANNUAL GRASSES (EXCEPT FOR IN ESTABLISHED ALFALFA AND PEPPERMINT AND SPEARMINT TOPS) (continued)

Grass Species	Scientific Name	Weed Height* (Inches)	Rate Fl. Oz./Acre <sup>1</sup>	High Rate <sup>2</sup>
Goosegrass	Eleusine indica	2 to 6**	5.55	7.37
Itchgrass	Rottboellia cochinchinensis	2 to 6	5.55	7.37
Junglerice	Echinochloa colona	2 to 6	5.55	7.37
Lovegrass (Stinkgrass)	Eragrostis cilianensis	2 to 6	5.55	7.37
Rabbitsfoot Grass	Polypogon monspeliensis	1 to 4	5.55	7.37
Red Rice	Oryza sativa	1 to 3	5.55	7.37
Ryegrass				
Hardy	Lolium remotum	2 to 6	5.55	7.37
Italian	Lolium multiflorum	2 to 6	5.55	7.37
Seedling Johnsongrass	Sorghum halepense	4 to 10	5.55	7.37
Shattercane	Sorghum bicolor	6 to 18	5.55	7.37
Southwestern Cupgrass	Eriochloa gracilis	2 to 6	5.55	7.37
Sprangletop				
Amazon	Leptochloa panicoides	2 to 6	5.55	7.37
Bearded	Leptochloa fascicularis	2 to 6	5.55	7.37
Mexican	Leptochloa uninervia	2 to 6	5.55	7.37
Red	Leptochloa filiformis	2 to 6	5.55	7.37
Texas Panicum	Panicum texanum	2 to 6	5.55	7.37
Volunteer Cereals <sup>3</sup>				
Barley	Hordeum vulgare	2 to 6	5.55	7.37
Oats	Avena sativa	2 to 6	5.55	7.37
Rye	Secale cereal	2 to 6	5.55	7.37
Wheat	Triticum aestivum	2 to 6	5.55	7.37
Volunteer Corn <sup>4</sup>	Zea mays	4 to 12	3.7	5.55
Volunteer Corn <sup>4</sup>	Zea mays	12 to 24	5.55	7.37
Volunteer Corn (S.R.) <sup>5</sup>	Zea mays	4 to 12	7.37 (suppression only)	
Volunteer Grain Sorghum	Sorghum bicolor	8 to 12	5.55	7.37
Wild Oats	Avena fatua	2 to 6	5.55	7.37
Wild Proso Millet	Panicum miliaceum	2 to 10	5.55	7.37
Witchgrass	Panicum capillare	2 to 8	5.55	7.37
Woolly Cupgrass	Eriochloa villosa	2 to 8	5.55	7.37

<sup>\*</sup>Generally occurs between 3-leaf stage and tillering.

<sup>\*\*</sup>Length of lateral growth.

<sup>13.7</sup> fl. oz./A (0.063 lb. a.i./A); 5.55 fl. oz./A (0.094 lb. a.i./A); 7.37 fl. oz./A (0.125 lb. a.i./A).

<sup>\*</sup>Rates higher than 7.37 fl. oz./A (0.125 lb. a.i./A) may be applied in certain geographic areas, cropping situations, or environmental conditions, where experience has shown that higher rates are needed for satisfactory control of annual grasses. In these situations, rates from 7.37 - 14.7 fl. oz./A (0.125 - 0.250 lb. a.i./A) may be applied. Restrictions: DO NOT exceed the maximum per application rate listed in the table, CROP SPECIFIC RESTRICTIONS AND LIMITATIONS FOR CROP PROTECT DIRECT CLETHODIM 2EC. DO NOT exceed the maximum yearly rate listed in the table, CROP SPECIFIC RESTRICTIONS AND LIMITATIONS FOR CROP PROTECT DIRECT CLETHODIM 2EC. DO NOT exceed the maximum number of annual applications listed in the table, CROP SPECIFIC RESTRICTIONS AND LIMITATIONS FOR CROP PROTECT DIRECT CLETHODIM 2EC.

<sup>&</sup>lt;sup>3</sup>When a cereal grain crop (including wheat) is interseeded for crop establishment or is planted as wind breaks to aid crop establishment, the minimum **Crop Protect Direct Clethodim 2EC** use rate for control is 7.37 fl. oz./A (0.125 lb. a.i./A).

<sup>&</sup>lt;sup>4</sup>Includes Roundup Ready®, LibertyLink®, and volunteer corn.

<sup>5</sup>Poast Protected®.

# DIRECTIONS FOR ANNUAL AND PERENNIAL GRASS CONTROL IN ESTABLISHED ALFALFA AND PEPPERMINT AND SPEARMINT TOPS WITH CROP PROTECT DIRECT CLETHODIM 2EC

IN ESTABLISHED ALFALFA AND PEPPERMINT AND SPEARMINT TOPS WITH CROP PROTECT DIRECT CLETHODIM ZEC					
Grass Species	Weed Stage	Rate Fl. Oz./Acre	High Rate		
Annual and Perennial Grasses Listed in Grass Table	See Table	9.2 (0.156 lb. a.i.)	14.7 (0.250 lb. a.i.)		

Mowing: The best control of annual grasses can be achieved by applying Crop Protect Direct Clethodim 2EC before grass weeds are mowed. Once grass is mowed it becomes tougher to control, as much of the available leaf surface has been removed. In areas without a killing frost, some annuals can over-winter after having been mowed multiple times. These grasses form large crowns and may contain many viable buds. These grasses, even though they may be an annual grass, may require repeated applications of Crop Protect Direct Clethodim 2EC for partial or complete control.

Irrigated Alfalfa and Mint (peppermint and spearmint tops): Irrigation practices can be very critical to the successful use of Crop Protect Direct Clethodim 2EC in established alfalfa and mint (peppermint and spearmint tops) and may be necessary to initiate active growth of the weeds before application. Generally, applications 2 to 4 days after irrigation are most effective. Irrigation made shortly after application (2 days) can be effective, but more consistent grass control occurs when the irrigation is made before the application.

Aerial Application: Apply Crop Protect Direct Clethodim 2EC in a minimum of 10 GPA in established alfalfa and mint (peppermint and spearmint tops) when applying by air.

Annual Grass Control: Apply Crop Protect Direct Clethodim ZEC at the grass sizes indicated in the Annual Grass Table and rates indicated. If a grass has been cut, apply Crop Protect Direct Clethodim ZEC after active growth has resumed and regrowth has reached the minimum height and before it reaches the maximum height indicated. Apply before the alfalfa/mint (peppermint and spearmint tops) canopy covers the grasses and interferes with the spray coverage. Some annual grasses are spring- and summer-germinating plants, while others are fall-germinating plants, and the time they are actively growing and most susceptible to Crop Protect Direct Clethodim ZEC may vary from region to region. Also, some annuals germinate over an extended period of time, and because control of small grasses is desired, applications after each weed flush may be required. As a general rule spray spring- and summer-germinating grasses as early in the season as possible, after initial green-up. Spray fall-germinating weeds in the fall soon after they begin growing but before any damage is done due to frost. Late fall applications may be less effective due to environmental conditions, including frost slower plant growth, or the onset of flowering.

Perennial Grass Control: Crop Protect Direct Clethodim 2EC effectively controls perennial grasses including Bermudagrass, Johnsongrass, quackgrass, wirestem muhly, tall fescue, foxtail barley and orchardgrass. Due in part to lack of tillage, perennial grasses are more difficult to control in perennial crops including established alfalfa or mint (peppermint and spearmint tops). A program of repeated applications is usually necessary for best results. The best way to control perennial grasses is to do so in the year of stand establishment before rhizomes and stolons become large and difficult to kill.

Use the high rate under heavy grass pressure and/or when grasses are at or near maximum height.

Always add a crop oil concentrate at 1 qt./A by ground or 1% v/v (but not less than 1 pt./A) to the finished spray volume by air.

#### Restrictions:

- DO NOT apply more than 14.7 fl. oz. (0.250 lb. a.i.) per acre per application.
- DO NOT apply more than 29.5 fl. oz. (0.500 lb. a.i.) per acre per year.
- DO NOT apply more than 3 applications at the lowest rate, 9.2 fl. oz., or 2 applications at the highest rate, 14.7 fl. oz., per year.
- RTI: For repeat applications, make on a minimum of a 14-day interval.

DIRECTIONS FOR ANNUAL BLUEGRASS CONTROL WITH CROP PROTECT DIRECT CLETHODIM 2EC					
Grass Species Weed Stage Rate Fl. Oz./Acre High Rate					
Annual Bluegrass (Poa annua)	to 4-leaf	5.55* (0.094 lb. a.i.)	14.7 (0.250 lb. a.i.)		

Apply under favorable soil moisture and humidity, which exists within a few days after rainfall or within 7 days after irrigation. Grass needs to be actively growing at time of application(s). Apply at weed stage indicated on the label, as reduced control can be expected with more mature annual bluegrass. Use the high rate under heavy grass pressure and/or when annual bluegrass is more mature.

Note: Always add a crop oil concentrate at 1 qt./A by ground to the finished spray volume.

\*Use a minimum of 9.2 fl. oz./A (0.156 lb. a.i./A) to control annual bluegrass in seedling and established alfalfa and mint.

#### Restrictions

- DO NOT apply more than 14.7 fl. oz. (0.250 lb. a.i.) per acre per application.
- DO NOT apply more than 59.0 fl. oz. (1.000 lb. a.i.) per acre per year.
- DO NOT apply more than 4 applications at the lowest rate, 5.55 fl. oz., or 2 applications at the highest rate, 14.7 fl. oz., per year.
- RTI: For repeat applications, make on a minimum of a 14-day interval.

DIRECTIONS FOR USE IN ROUNDUP READY FIELD CORN (BURNDOWN)				
Grass Species Weed Size (Inches) Rate when Applied Alone or With Glyphosate				
Field Corn	Up to 12	2.77 fl. oz./A (0.047 lb. a.i.)		

For control of existing stand of Roundup Ready field corn or volunteer Roundup Ready field corn before replanting corn. Care must be taken to avoid in-field boom (spray) overlaps or excessive crop injury may occur. Replant no sooner than 6 days after application.

Adjuvants: NIS at 0.25% v/v plus AMS at 2.5 - 4.0 lbs./A.

#### Restrictions:

- DO NOT use COC or MSO with Crop Protect Direct Clethodim 2EC in this use pattern.
- DO NOT apply more than 2.77 fl. oz. (0.05 lb. a.i.) per acre per application.
- DO NOT apply more than 11.08 fl. oz. (0.19 lb. a.i.) per acre per year.
- DO NOT apply more than 4 applications at 2.77 fl. oz. per year.
- RTI: For repeat applications, make on a minimum of a 14-day interval.

# DIRECTIONS FOR REDUCED RATE TO CONTROL SMALL ANNUAL GRASSES IN CANOLA, DRIED SHELLED BEAN AND PEA (INCLUDING SOYBEAN), EDIBLE PODDED LEGUME VEGETABLES, FLAX, MUSTARD SEED, SUCCULENT SHELLED BEAN AND PEA, AND SUGAR BEET

(Reduced rate directions not for use in California.)

Apply only to actively growing grasses at listed weed heights. Apply when the first grass weed species in a mixed grass weed population reaches the advised growth stage for treatment. Regrowth by tillering may occur if application is made when plants are stressed by lack of moisture, excessive moisture, low or high temperatures and/or under very low humidity.

#### Restrictions:

- DO NOT apply more than 4.6 fl. oz. (0.078 lb. a.i.) per acre per application.
- DO NOT apply more than 18.46 fl. oz. (0.313 lb. a.i.) per acre per year.
- DO NOT apply more than 4 applications at 3.7 4.6 fl. oz. per year.
- RTI: For repeat applications, make on a minimum of a 14-day interval.

Grass Species	Scientific Name	Weed Height (Inches)	Rate Fl. Oz./Acre <sup>1,2</sup>
Barnyardgrass	Echinochloa crus-galli	1 to 4	3.7
Broadleaf Signalgrass	Brachiaria platyphylla	1 to 4	4.6
Crabgrass			
Large	Digitaria sanguinalis	1 to 3*	3.7
Large	Digitaria sanguinalis	1 to 4*	4.6
Smooth	Digitaria ischaemum	1 to 3*	3.7
Smooth	Digitaria ischaemum	1 to 4*	4.6
Southern	Digitaria ciliaris	1 to 4*	4.6
Fall Panicum	Panicum dichotomiflorum	1 to 4	3.7
Foxtail			
Giant	Setaria faberi	1 to 4	3.7
Green	Setaria viridis	1 to 4	3.7
Millet	Setaria italic	1 to 4	4.6
Yellow	Setaria glauca	1 to 4	3.7
Seedling Johnsongrass	Sorghum halepense	1 to 6	4.6
Shattercane	Sorghum bicolor	4 to 10	3.7
Texas Panicum	Panicum texanum	1 to 4	4.6
Volunteer Cereals			
Barley	Hordeum vulgare	1 to 4	4.6
Oats	Avena sativa	1 to 4	4.6
Wheat	Triticum aestivum	1 to 4	4.6
Volunteer Corn**	Zea mays	4 to 12	3.7
Wild Proso Millet	Panicum miliaceum	1 to 6	3.7
Wild Oats	Avena fatua	1 to 4	4.6

<sup>\*</sup>Length of lateral growth.

<sup>\*\*</sup>Not sethoxydim-resistant (S.R.) Corn.

<sup>&</sup>lt;sup>1</sup>Always add a crop oil concentrate at 1 qt./A by ground application to the finished spray volume.

<sup>23.7</sup> fl. oz./A (0.063 lb. a.i./A); 4.6 fl. oz./A (0.078 lb. a.i./A)

#### DIRECTIONS FOR PERFUNIAL GRASSES

Apply only to actively growing grasses at listed weed heights. Apply when the first grass weed species in a mixed grass weed population reaches the advised growth stage for treatment. Use the high rate under heavy grass pressure and/or when grasses are at maximum height.

#### Restrictions:

- DO NOT exceed the maximum per application rate listed in the table, CROP SPECIFIC RESTRICTIONS AND LIMITATIONS FOR CROP PROTECT DIRECT CLETHODIM 2EC.
- DO NOT exceed the maximum yearly rate listed in the table, CROP SPECIFIC RESTRICTIONS AND LIMITATIONS FOR CROP PROTECT DIRECT CLETHODIM 2EC.
- DO NOT exceed the maximum number of annual applications listed in the table, CROP SPECIFIC RESTRICTIONS AND LIMITATIONS FOR CROP PROTECT DIRECT CLETHODIM 2EC.

Grass Species	Weed Height (Inches)	Rate Fl. Oz./Acre <sup>1</sup>	High Rate
Bermudagrass (Cynodon dactylon)			
First Application	3 (or up to 6" runners)	7.37	14.7
Repeat Application(s) (if regrowth occurs)	3 (or up to 6" runners)	7.37	14.7
Fescue, Tall ( <i>Festuca arundinacea</i> )			
First Application	4 to 8	7.37	14.7
Repeat Application(s) (if regrowth occurs)	4 to 8	7.37	14.7
Foxtail Barley ( <i>Hordeum jubatum</i> )			
First Application	2 to 6	7.37	14.7
Repeat Application(s) (if regrowth occurs)	2 to 6	7.37	14.7
Orchardgrass ( <i>Dactylis glomerata</i> )			
First Application	4 to 8	7.37	14.7
Repeat Application(s) (if regrowth occurs)	4 to 8	7.37	14.7
Quackgrass* (Elytrigia repens)			
First Application	4 to 12	7.37	14.7
Repeat Application(s) (if regrowth occurs)	4 to 12	7.37	14.7
Rhizome Johnsongrass (Sorghum halepense)			
First Application	12 to 24	7.37	14.7
Repeat Application(s) (if regrowth occurs)	6 to 18	5.55	7.37
Wirestem Muhly ( <i>Muhlenbergia frondosa</i> )			
First Application	4 to 8	7.37	14.7
Repeat Application(s) (if regrowth occurs)	4 to 8	7.37	14.7
Perennial Bluegrass*			
Roughstalk (Poa trivialis)			
Kentucky (Poa pretenses)			
First Application	2 to 4	7.37	14.7
Repeat Application(s) (if regrowth occurs)	2 to 4	7.37	14.7
Bentgrass* (Agrostis spp.)			
First Application	2 to 4	-	14.7
Repeat Application(s) (if regrowth occurs)	2 to 4	-	14.7
*Control of quackgrass, perennial bluegrass and bentgrass with	Crop Protect Direct Clethodim 2EC may	be enhanced by adding Am	monium Sulfate (AMS

\*Control of quackgrass, perennial bluegrass and bentgrass with Crop Protect Direct Clethodim 2EC may be enhanced by adding Ammonium Sulfate (AMS) a 2.5 - 4.0 lbs./A.

17.37 fl. oz./A (0.125 lb. a.i./A); 14.7 fl. oz./A (0.250 lb. a.i./A)

#### TANK MIXES PRODUCT INFORMATION

The labels for each of the herbicides specified for tank mixing with Crop Protect Direct Clethodim 2EC are unique to the characteristics of those products and contain restrictions and limitations that may be more restrictive than the Crop Protect Direct Clethodim 2EC label in certain considerations. Those concerns may include, but are not limited to:

- Always read and follow the restrictions and limitations for all products whether used alone or in a tank mix. The most restrictive labeling of any product used applies in
  tank mixtures, including all crop rotational and other crop restrictions.
- Geographic restrictions all products are not registered for use in all areas and rates may vary from one region of labeled use to another:
- Crop rotation restrictions:
- · Applicator certification requirements;
- Worker safety rules (e.g., protective clothing, reentry time, posting):
- Soil type or soil characteristics (e.g., pH, OM):
- Maximum dosage or number of applications per year:
- · Rain free period required; or
- Application timing (e.g., pre-harvest interval).
- . DO NOT exceed the total annual rates.

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 OF ANY PRODUCT USED IN A TANK MIX MUST BE FOLLOWED.

#### TANK MIX APPLICATION OF CROP PROTECT DIRECT CLETHODIM 2EC AND BROADLEAF HERBICIDES FOR CONTROL OF GRASSES AND BROADLEAF WEEDS

- . Apply only to actively growing grass and broadleaf weeds at the height or growth stage listed on each label.
- Apply when the first grass or broadleaf weed species in a mixed population reaches the labeled height or growth stage for treatment.
- · Apply under favorable soil moisture and humidity that exist a few days after rainfall or within 7 days after irrigation.
- Always add the appropriate adjuvant to the spray mix at the rate specified for each specific tank mix combination.
- Tank mix applications may sometimes result in reduced grass control and possible increases in crop injury as compared to either product used alone. If regrowth occurs,
  or an additional flush of new grass emerges, make a second application of Crop Protect Direct Clethodim 2EC, as specified in the respective size and rate tables.
- DO NOT tank mix Crop Protect Direct Clethodim 2EC when broadleaf weeds are tall and/or dense enough to prevent proper grass coverage.

#### MIXING INSTRUCTIONS

- 1. Fill clean spray tank 1/2 to 2/3 of desired level with clean water.
- 2. While agitating, add the correct amount of Crop Protect Direct Clethodim 2EC. Agitation will create a rippling or rolling action on the water surface.
- If tank mixing Crop Protect Direct Clethodim 2EC with other labeled herbicides, add water soluble bags first, followed by dry formulations, flowables, emulsifiable concentrates, and then solutions. Prepare no more spray mixture than is required for the immediate spray operation.
- 4. Add any required adjuvants (crop oil concentrate, non-jonic surfactant and/or nitrogen solution).
- 5. Fill spray tank to desired level with water. Continue agitation until all spray solution has been applied.

Failure to agitate the spray solution may result in improper mixing of the herbicides and unsatisfactory weed control. Mixing and compatibility qualities must be verified by a jar test.

# Information on Antagonism

Tank mixes of Crop Protect Direct Clethodim 2EC with post-emergence broadleaf herbicides have shown some reduction or failure to control certain grass species which would have otherwise been controlled when Crop Protect Direct Clethodim 2EC is applied alone. Activity of the post-emergence broadleaf herbicide in the tank mix is not affected.

#### ΔΙ ΕΔΙ ΕΔ

Table 1. CROP PROTECT DIRECT CLETHODIM 2EC TANK MIXES WITH BROADLEAF HERBICIDES FOR ALFALFA (Refer to the instruction tables above for specific grasses and growth stages.)

	Application	Rates/Acre <sup>1</sup> Crop		p Oil Concentrate <sup>3</sup>	
Product <sup>2</sup>	Annual Grasses	Perennial Grasses	(V/V)		
	Allitudi di dasses	reteiiiidi diasses	Ground	Air	
Crop Protect Direct Clethodim 2EC  + 2,4-DB <sup>4</sup>	9.2 - 14.7 fl. oz. (0.156 - 0.250 lb. a.i.) + Refer to product label for use rates.	9.2 - 14.7 fl. oz. (0.156 - 0.250 lb. a.i.) + Refer to product label for use rates.	1%	1%	
Crop Protect Direct Clethodim 2EC + Imazethapyr <sup>5</sup>	9.2 - 14.7 fl. oz. (0.156 - 0.250 lb. a.i.) + Refer to product label for use rates.	-	1%	1%	
Crop Protect Direct Clethodim 2EC + bromoxynil octanoate <sup>6</sup>	9.2 - 14.7 fl. oz. (0.156 - 0.250 lb. a.i.) + Refer to product label for use rates.	-	0.5%	0.5%	

Restriction: DO NOT apply when alfalfa is under moisture, temperature, insect or disease stress or has been stressed by other pesticide carryover or application.

1f grass regrowth occurs or an additional flush of new grass emerges, make a second application of **Crop Protect Direct Clethodim 2EC** alone (without a tank mix herbicide), according to the appropriate size and rate requirements.

<sup>2</sup>Broadleaf weed control may be reduced when grass populations are tall or dense enough to intercept the spray pattern and prevent them from receiving complete coverage. Tank mixing is not advised in these situations.

<sup>3</sup>Always use a crop oil concentrate at the listed rate (but not less than 1 pt./A) in the finished spray volume.

4Crop Protect Direct Clethodim 2EC plus 2,4-DB may increase the severity of crop injury when tank mixed. Alfalfa plants will generally outgrow this temporary crop injury within a few weeks.

FBéfore using this tank mix, read and understand the imazethapyr labels for geographical restrictions and restrictions regarding alfalfa growth stage and type. Failure to do so can result in crop injury to alfalfa.

Fin the states of Washington, Oregon, Idaho, Montana, Wyoming, Colorado, Utah, Nevada and the western halves of North Dakota, South Dakota, Nebraska, and Kanasa:
The Crop Protect Direct Clethodim 2EC plus bromoxynil octanoate tank mix must be applied in the fall or spring to seedling alfalfa when the majority of the field
has a minimum of 2 trifoliates. Unacceptable crop injury may occur to alfalfa seedlings less than the 2 trifoliate leaf stage. Crop Protect Direct Clethodim 2EC plus
bromoxynil octanoate applications made when temperatures are expected to exceed 80°F at (and 3 days following) application can result in unacceptable crop injury.
In the states not listed above, apply in the fall or spring to seedling alfalfa when the majority of the field has a minimum of 4 trifoliate leaves. When the alfalfa stand is
uneven and conditions favor leaf burn, unacceptable crop injury may occur to alfalfa in the 2 trifoliate or smaller stage of growth. Crop Protect Direct Clethodim 2EC
plus bromoxynil octanoate applications made when temperatures are expected to exceed 70°F at (and 3 days following) application can result in unacceptable crop
injury. Crop leaf burn can occur following Crop Protect Direct Clethodim 2EC plus bromoxynil octanoate or application. Warm, humid conditions may enhance leaf burn.
New crop growth will not be affected.

### CANOLA (EXCEPT FLAX)

[Rapeseed Subgroup 20A (except flax seed, mustard seed, and sesame seed)]

Table 2. REDUCED RATE CROP PROTECT DIRECT CLETHODIM 2EC TANK MIXES WITH BROADLEAF HERBICIDES (Refer to the tables above for specific grasses and growth stages.)

Product	Application Rates/Acre		Ammonium Sulfate	
Floudet	Annual Grasses <sup>1</sup>	Perennial Grasses	Ground	Air
Crop Protect Direct Clethodim 2EC + glufosinate <sup>2</sup>	3.7 - 4.6 fl. oz. (0.063 - 0.078 lb. a.i.) + Befer to product label for use rates	-	3.0 lbs.	3.0 lbs.

Restriction: DO NOT apply Crop Protect Direct Clethodim 2EC tank mix during or after bolting or flowering or crop injury may occur.

<sup>1</sup>Annual grasses and sizes controlled with these tank mixtures are those that are identified in the **DIRECTIONS FOR REDUCED RATE TO CONTROL SMALL ANNUAL GRASSES** table.

<sup>2</sup>For use only on LibertyLink® canola.

#### COTTON

#### Table 3. CROP PROTECT DIRECT CLETHODIM 2EC TANK MIXED WITH LACTOFEN AND MSMA APPLIED POST DIRECTED TO COTTON

Product <sup>1</sup>	Application	Crop Oil Concentrate <sup>3</sup> (V/V)			
Floudet.	Annual Grasses	Perennial Grasses	Ground		
Crop Protect Direct Clethodim 2EC <sup>4</sup>	5.55 - 7.37 fl. oz. (0.094 - 0.125 lb. a.i.)	7.37 - 14.7 fl. oz. (0.094 - 0.125 lb. a.i.)	1%		
lactofen +	See lactofen label for rates to control broadleaf weeds and height limitations for cotton. Refer to the <b>Crop Protect Direct Clethodim 2EC</b> label for weed height and species controlled.				
MSMA (4.0 lbs./gal.) or MSMA (6.6 lbs./gal.)	See MSMA label for rates to control broadleaf weeds and height limitations for cotton. Refer to the <b>Crop Protect Direct Clethodim 2EC</b> label for weed height and species controlled.				

Reduce broadcast rate in proportion to the band area actually treated.

<sup>1</sup>Broadleaf weed control may be reduced when grass populations are tall or dense enough to intercept the spray pattern and prevent them from receiving complete coverage. Tank mixing is not advised in these situations.

2lf grass regrowth occurs or an additional flush of new grass emerges, make a second application of **Crop Protect Direct Clethodim 2EC** alone (without a tank mix herbicide), according to the appropriate size and rate requirements.

3Always use a crop oil concentrate at the listed rate (but not less than 1 pt./A) in the finished spray volume.

4lf at the time of application, grass height is so tall that post-directed applications cannot get good coverage over the top of the grassy weeds, then poor control may result and a second (non-post directed) application of Crop Protect Direct Clethodim 2EC may be necessary.

# Table 4. CROP PROTECT DIRECT CLETHODIM 2EC TANK MIXED WITH BROMOXYNIL OCTANOATE AND BROMOXYNIL HEPTANOATE TO CONTROL EMERGED WEEDS IN BYN COTTON AS A BROADCAST APPLICATION

Product <sup>1</sup>	Application Rates/Acre <sup>2</sup>	Crop Oil Concentrate/Acre <sup>3</sup>
Floudet.	Annual Grasses	Grop on Concentrate/Acres
Crop Protect Direct Clethodim 2EC	7.37 - 14.7 fl. oz. (0.125 - 0.250 lb. a.i.)	
bromoxynil octanoate and bromoxynil heptanoate	See product label for use rates to control broadleaf weeds and height limitations for cotton.	1 qt.

Use a minimum of 10 gals. of spray solution per acre. See charts for grasses controlled.

#### Restrictions:

- . DO NOT apply the Crop Protect Direct Clethodim 2EC plus bromoxynil octanoate and bromoxynil heptanoate tank mix within 75 days of harvest.
- DO NOT exceed 2 applications of bromoxynil octanoate and bromoxynil heptanoate before cotton is 12" tall and 1 application after 12" tall.

<sup>1</sup>Broadleaf weed control may be reduced when grass populations are tall or dense enough to intercept the spray pattern and prevent them from receiving complete coverage.

2ff grass regrowth occurs or an additional flush of new grass emerges, make a second application of **Crop Protect Direct Clethodim 2EC** at the prescribed rate with the appropriate amount of crop oil concentrate in a non-bromoxynil octanoate and bromoxynil heptanoate tank mix.

3flwavs add a crop oil concentrate at 1 ut./A by ground in the finished sorav solution.

# Table 5. CROP PROTECT DIRECT CLETHODIM 2EC TANK MIXED WITH GLYPHOSATE TO CONTROL EMERGED GRASSES IN COTTON AS A BROADCAST APPLICATION

	Application	on Rates/Acre <sup>1</sup> Adjuvant		ant
Product	Annual Grasses	Perennial Grasses	Glyphosate formulation with built in adjuvant	Glyphosate formulation without built in adjuvant
Crop Protect Direct Clethodim 2EC	5.55 - 7.37 fl. oz.	7.37 - 14.7 fl. oz.	Non-ionic surfactant	Crop oil concentrate
	(0.094 - 0.125 lb. a.i.)	(0.125 - 0.250 lb. a.i.)	@ 0.125 to 0.25% v/v plus	@ 1 pt./A plus ammonium
glyphosate See glyphosate label for use r	ntes to control broadleaf weeds	ammonium sulfate @ 8.5 to	sulfate @ 8.5 to 17 lbs. per	
and height limitations for cott		17 lbs. per 100 gals. of carrier.	100 gals. of carrier.	

See charts for grasses controlled. Use a minimum of 10 gals. of spray solution per acre.

1f grass regrowth occurs or an additional flush of new grass emerges, make a second application of **Crop Protect Direct Clethodim 2EC** at the prescribed rate with the appropriate amount of crop oil concentrate.

#### BEANS (DRY AND SUCCULENT SHELLED)

[Succulent Shelled Pea and Bean Subgroup 6B] [Dried Shelled Pea and Bean (except Soybean) Subgroup 6C]
Table 6. CROP PROTECT DIRECT CLETHODIM 2EC TANK MIXES WITH BROADLEAF HERBICIDES FOR BEANS (DRY AND SUCCULENT SHELLED)
(Refer to the instruction tables above for soecific grasses and growth stages.)

Product <sup>2</sup>	Application Rates/Acre <sup>1</sup>		Crop Oil Concentrate <sup>3</sup> (V/V)	
Floudet	Annual Grasses	Perennial Grasses	Ground	Air
Crop Protect Direct Clethodim 2EC + sodium bentazon	7.37 - 9.2 fl. oz. (0.125 - 0.156 lbs. a.i.) + Refer to product label for use rates.	9.2 - 14.7 fl. oz. (0.156 - 0.250 lb. a.i.) + Refer to product label for use rates.	1%	1%

<sup>1</sup>lf grass regrowth occurs or an additional flush of new grass emerges, make a second application of **Crop Protect Direct Clethodim 2EC** alone (without a tank mix herbicide), according to the appropriate size and rate specifications.

Table 7. REDUCED RATE CROP PROTECT DIRECT CLETHODIM 2EC TANK MIXED WITH BROADLEAF HERBICIDES FOR FLAX (Refer to the tables above for specific grasses and growth stages.)

	Application Rates/Acre			oncentrate	
Product	Annual Grasses <sup>1</sup> Perennial Grasses		Ground		
Crop Protect Direct Clethodim 2EC + MCPA and bromoxynil octanoate and bromoxynil heptanoate	3.7 - 4.6 fl. oz. (0.063 - 0.078 lb. a.i.) + Refer to product label for use rates.	-	1 pt.	1 pt.	
Crop Protect Direct Clethodim 2EC  + bromoxynil octanoate	3.7 - 4.6 fl. oz. (0.063 - 0.078 lb. a.i.) + Refer to product label for use rates.	-	1 pt.	1 pt.	
Crop Protect Direct Clethodim 2EC + MCPA, 2-ethylhexyl ester	3.7 - 4.6 fl. oz. (0.063 - 0.078 lb. a.i.) + Refer to product label for use rates.	-	1 pt.	1 pt.	

#### Restrictions:

- . DO NOT apply Crop Protect Direct Clethodim 2EC tank mix during or after the bud stage or to ornamental flax or crop injury may occur.
- DO NOT apply tank mixes if temperatures are expected to exceed 85°F at (or 3 days following) application or crop injury may occur.

#### SOYBEAN

## Table 8. CROP PROTECT DIRECT CLETHODIM 2EC TANK MIXES\* TO CONTROL ANNUAL GRASSES WHEN USED AS A BURNDOWN IN NO-TILL SOYBEAN

Product	Product Rate/Acre <sup>1</sup>	Grass Height (Inches)	Crop Oil Concentrate/ Acre <sup>2</sup>	28%N or 32%N Qts./A or 2.5 to 4.0 Lbs. AMS
Crop Protect Direct Clethodim 2EC	2.77 fl. oz. (0.047 lb. a.i.)	Foxtail 1 to 3 Fall Panicum 1 to 3	1 qt.	1 to 2 qts. or 2.5 to 4.0 lbs. AMS
	3.7 fl. oz. (0.063 lb. a.i.)	Foxtail 1 to 4 Fall Panicum 1 to 4	1 qt.	1 to 2 qts. or 2.5 to 4.0 lbs. AMS
2,4-D ester*	5.55 - 7.37 fl. oz. (0.094 - 0.125 lb. a.i.) + Refer to product label for use rates.	(See Grass Chart for grasses claimed.)	1 qt.	1 to 2 qts. or 2.5 to 4.0 lbs. AMS

Restriction: DO NOT use 2,4-D ester where drift sensitive crops may be grown.

<sup>&</sup>lt;sup>2</sup>Broadleaf weed control may be reduced when grass populations are tall enough or dense enough to intercept the spray pattern and prevent them from receiving complete coverage. Tank mixing is not advised in these situations.

<sup>&</sup>lt;sup>3</sup>Always use a crop oil concentrate at the listed rate (but not less than 1 pt./A) in the finished spray volume.

<sup>&</sup>lt;sup>1</sup>Annual grasses and sizes controlled with these tank mixtures are those that are identified in the **DIRECTIONS FOR REDUCED RATE TO CONTROL SMALL ANNUAL GRASSES** table.

<sup>\*</sup>The following products can be tank mixed with Crop Protect Direct Clethodim 2EC plus 2,4-D ester: flumioxazin, chlorimuron-ethyl + sulfentrazone, metolachlor, s-metolachlor, pendimethalin, metribuzin, metribuzin plus the metolachlor/s-metolachlor products, and glyphosate.

If regrowth occurs or an additional flush of new grass emerges, make a second application of **Crop Protect Direct Clethodim 2EC** according to the appropriate size and rate requirements.

<sup>&</sup>lt;sup>2</sup>Always use a crop oil concentrate at the listed rate in the finished spray volume.

# Table 9. CROP PROTECT DIRECT CLETHODIM 2EC TANK MIXES WITH BROADLEAF HERBICIDES FOR SOYBEAN (Refer to the tables above for specific grasses and growth stages.)

Product <sup>2</sup>	Application Rates/Acre <sup>1</sup>			Crop Oil Concentrate <sup>3</sup> (V/\		
Product <sup>2</sup>	Annual Grasses	Perennial Grasses	Ground	Air		
Crop Protect Direct Clethodim 2EC	5.55 - 7.37 fl. oz. (0.094 - 0.125 lb. a.i.)	7.37 - 14.7 fl. oz. (0.125 - 0.250 lb. a.i.)	0.5 to 1%	1%		
lactofen	+ Refer to product label for use rates.	Refer to product label for use rates.				
Crop Protect Direct Clethodim 2EC	7.37 - 9.2 fl. oz. (0.125 - 0.156 lbs. a.i.)	9.2 - 14.7 fl. oz. (0.156 - 0.250 lb. a.i.)	1%	1%		
sodium bentazon	Refer to product label for use rates.	Refer to product label for use rates.				
Crop Protect Direct Clethodim 2EC  + glyphosate	5.55 - 7.37 fl. oz. (0.094 - 0.125 lb. a.i.)	7.37 - 14.7 fl. oz. (0.125 - 0.250 lb. a.i.)	0.5 to 1% <sup>4</sup>	1%4		
(For use on Roundup Ready soybean only.)	Refer to product label for use rates.	Refer to product label for use rates.				
Crop Protect Direct Clethodim 2EC	5.55 - 7.37 fl. oz. (0.094 - 0.125 lb. a.i.)	5.55 - 7.37 fl. oz. (0.094 - 0.125 lb. a.i.)	0.5 to 1%	1%		
sodium acifluorfen	Refer to product label for use rates.	Refer to product label for use rates.				
Crop Protect Direct Clethodim 2EC	5.55 - 7.37 fl. oz. (0.094 - 0.125 lb. a.i.)	7.37 - 14.7 fl. oz. (0.125 - 0.250 lb. a.i.)	1%	1%		
sodium salt of fomesafen <sup>6</sup>	Refer to product label for use rates.	Refer to product label for use rates.				
Crop Protect Direct Clethodim 2EC	7.37 - 9.2 fl. oz. (0.125 - 0.156 lbs. a.i.) +	9.2 - 14.7 fl. oz. (0.156 - 0.250 lb. a.i.)	1%	1%		
chlorimuron-ethyl	Refer to product label for use rates. 5.55 - 7.37 fl. oz.	Refer to product label for use rates. 7.37 - 14.7 fl. oz.				
Crop Protect Direct Clethodim 2EC <sup>4</sup> + imazethapyr	(0.094 - 0.125 lb. a.i.) +	(0.125 - 0.250 lb. a.i.)	1%	1%		
Crop Protect Direct Clethodim 2EC5	Refer to product label for use rates.	Refer to product label for use rates.				
- + lactofen	7.37 - 9.2 fl. oz. (0.125 - 0.156 lbs. a.i.)	-	0.5%	1%		
+ chlorimuron-ethyl	Refer to product labels for use rates.					
Crop Protect Direct Clethodim 2EC <sup>5</sup> + lactofen	7.37 - 9.2 fl. oz. (0.125 - 0.156 lbs. a.i.)	-	0.5%	1%		
+ sodium bentazon	Refer to product labels for use rates.					
Crop Protect Direct Clethodim 2EC5	7.37 - 9.2 fl. oz. (0.125 - 0.156 lbs. a.i.)					
lactofen + imazethapyr	Refer to product labels for use rates.	-	0.5%	1%		
Crop Protect Direct Clethodim 2EC5	7.37 - 9.2 fl. oz. (0.125 - 0.156 lbs. a.i.)	_	0.5%	1%		
sodium bentazon and sodium acifluorfen	+ Refer to product label for use rates.					
Crop Protect Direct Clethodim 2EC <sup>5</sup> + flumiclorac	7.37 - 9.2 fl. oz. (0.125 - 0.156 lbs. a.i.)	_	1%	1%		
+ imazethapyr	+ Refer to product labels for use rates.			.,,		
Crop Protect Direct Clethodim 2EC5	7.37 - 9.2 fl. oz. (0.125 - 0.156 lbs. a.i.)	_	1%	1%		
flumiclorac + sodium bentazon	+ Refer to product labels for use rates.		1,0	. 70		
Crop Protect Direct Clethodim 2EC <sup>5</sup> + flumiclorac	7.37 - 9.2 fl. oz. (0.125 - 0.156 lbs. a.i.)	_	1%	1%		
+ chlorimuron-ethyl	Refer to product labels for use rates.		1 /0	1 /0		

(continued)

Table 9. CROP PROTECT DIRECT CLETHODIM 2EC TANK MIXES WITH BROADLEAF HERBICIDES FOR SOYBEAN (continued)

(Refer to the tables above for specific grasses and growth stages.)

Product <sup>2</sup>	Application Rates/Acre <sup>1</sup>			Crop Oil Concentrate <sup>3</sup> (V/V		
Product	Annual Grasses Perennial Grasses		Ground	Air		
Crop Protect Direct Clethodim 2EC5 + lactofen + flumiclorac	5.55 - 7.37 fl. oz. (0.094 - 0.125 lb. a.i.) + Refer to product labels for use rates.	-	0.5%	1%		
Crop Protect Direct Clethodim 2EC5 + cloransulam-methyl	5.55 - 7.37 fl. oz. (0.094 - 0.125 lb. a.i.) + Refer to product label for use rates.	7.37 - 14.7 fl. oz. (0.125 - 0.250 lb. a.i.) + Refer to product label for use rates.	1%	-		
Crop Protect Direct Clethodim 2EC <sup>5</sup> + lactofen + cloransulam-methyl	5.55 - 7.37 fl. oz. (0.094 - 0.125 lb. a.i.) + Refer to product labels for use rates.	7.37 - 14.7 fl. oz. (0.125 - 0.250 lb. a.i.) + Refer to product labels for use rates.	1%	-		
Crop Protect Direct Clethodim 2EC <sup>5</sup> + imazamox	5.55 - 7.37 fl. oz. (0.094 - 0.125 lb. a.i.) + Refer to product label for use rates.	-	1%	-		
Crop Protect Direct Clethodim 2EC5 + lactofen + imazamox	5.55 - 7.37 fl. oz. (0.094 - 0.125 lb. a.i.) + Refer to product labels for use rates.	-	1%	-		
Crop Protect Direct Clethodim 2EC <sup>5</sup> + thifensulfuron and chlorimuron-ethyl	5.55 - 7.37 fl. oz. <sup>7</sup> (0.094 - 0.125 lb. a.i.) + Refer to product label for use rates.	-	1 qt.	-		
Crop Protect Direct Clethodim 2EC5 + lactofen + thifensulfuron and chlorimuron-ethyl	5.55 - 7.37 fl. oz. <sup>7</sup> (0.094 - 0.125 lb. a.i.) + Refer to product label for use rates.	-	1 pt.	-		
Crop Protect Direct Clethodim 2EC <sup>5</sup> + flumiclorac	5.55 - 7.37 fl. oz. (0.094 - 0.125 lb. a.i.) + Refer to product label for use rates.	-	1 qt.	-		
Crop Protect Direct Clethodim 2EC <sup>5</sup> + cloransulam-methyl and flumetsulam	7.37 - 9.2 fl. oz. (0.125 - 0.156 lbs. a.i.) + Refer to product label for use rates.	-	1%	-		
Crop Protect Direct Clethodim 2EC + cloransulam-methyl + sodium salt of fomesafen <sup>6</sup>	5.55 - 7.37 fl. oz. (0.094 - 0.125 lb. a.i.) + Refer to product labels for use rates.	7.37 - 14.7 fl. oz. (0.125 - 0.250 lb. a.i.) + Refer to product labels for use rates.	1%	-		

<sup>1/</sup>If grass regrowth occurs or an additional flush of new grass emerges, make a second application of **Crop Protect Direct Clethodim 2EC** alone (without a tank mix herbicide), according to the appropriate size and rate specifications.

<sup>&</sup>lt;sup>2</sup>Broadleaf weed control may be reduced when grass populations are tall or dense enough to intercept the spray pattern and prevent them from receiving complete coverage. Tank mixing is not advised in these situations.

<sup>&</sup>lt;sup>3</sup>Always use a crop oil concentrate at the listed rate (but not less than 1 pt./A) in the finished spray volume.

<sup>4</sup>The addition of 2.5 lb. of ammonium sulfate is required when **Crop Protect Direct Clethodim 2EC** is tank mixed with glyphosate. If the glyphosate formulation has a stand-alone built in adjuvant, add 0.125% v/v non-ionic surfactant in place of crop oil concentrate. If the glyphosate formulation does not have a built in adjuvant, add 0.5 - 1% crop oil concentrate for ground application and 1% v/v for aerial application.

The addition of 1 to 2 qits. A of liquid fertilizer (10-34-0, 28%N, or 32%N) is advised when Crop Protect Direct Clethodim 2EC is tank mixed with imazethapyr, flumiclorac, sodium bentazon and sodium acifluorfen, cloransulam-methyl, thifensulfuron and chlorimuron-ethyl, imazamox, cloransulam-methyl and flumetsulam, lactofen plus chlorimuron-ethyl, lactofen plus coloransulam-methyl, lactofen plus thifensulfuron and chlorimuron-ethyl, and lactofen plus imazamox. An equivalent amount (2.5 - 4.0 lbs./A) of spray grade ammonium sulfate (AMS) may be added in place of liquid fertilizer. Fertilizer adjuvants are to be added in addition to the crop oil concentrate.

<sup>&</sup>lt;sup>6</sup>Refer to sodium salt of fomesafen label for geographic and rotational restrictions.

<sup>7</sup>Annual grasses and sizes controlled with these tank mixes are those that are identified in the **DIRECTIONS FOR REDUCED RATE TO CONTROL SMALL ANNUAL GRASSES** table.

#### Table 10. REDUCED RATE CROP PROTECT DIRECT CLETHODIM 2EC TANK MIXES WITH BROADLEAF HERBICIDES FOR SOYBEAN

(Refer to table Directions for reduced rate to control small annual grasses in canola, dry shelled bean and pea (including soybean, edible podded legume vegetables, flax, mustard seed, bean and pea (succulent), and sugar beet.)

(Reduced rate specifications not for use in California.)

	Application Rates/Acre <sup>1</sup>			ncentrate <sup>3,4</sup>		
Product	Annual Grasses <sup>2</sup>	Perennial Grasses	(V/V)			
			Ground	Air		
Crop Protect Direct Clethodim 2EC + cloransulam-methyl	3.7 to 7.37 fl. oz. (0.063 - 0.125 lb. a.i.) + Refer to product label for use rates.	-	1%	1%		
Crop Protect Direct Clethodim 2EC + imazethapyr	tect Direct Clethodim 2EC 3.7 to 5.55 fl. oz. (0.063 - 0.094 lb. a.i.)		1%	1%		

<sup>1</sup>f grass regrowth occurs or an additional flush of new grass emerges, make a second application of **Crop Protect Direct Clethodim 2EC** alone (without a tank mix herbicide), according to the appropriate size and rate specifications.

Annual grasses and sizes controlled with these tank mixtures are those that are identified in the **DIRECTIONS FOR REDUCED RATE TO CONTROL SMALL ANNUAL GRASSES** table.

3Always use a crop oil concentrate at the listed rate (but not less than 1 pt /A) in the finished spray volume

<sup>4</sup>The addition of 1 - 2 qts:/A of liquid fertilizer (10-34-0, 28%N, or 32%N) is required when **Crop Protect Direct Clethodim 2EC** is tank mixed at reduced rates. An equivalent amount (2.5 - 4.0 lbs:/A) of spray grade ammonium sulfate (AMS) may be added in place of liquid fertilizer. Fertilizer adjuvants are to be added in addition to the crop oil concentrate.

#### PEANUT (INCLUDING PERENNIAL)

Table 11. CROP PROTECT DIRECT CLETHODIM 2EC TANK MIXES WITH BROADLEAF HERBICIDES FÓR PEANUT (INCLUDING PERENNIAL)
(Refer to the instruction tables above for specific grasses and growth stages.)

	Application I	Crop Oil Concentrate <sup>3</sup>			
Product <sup>2</sup>	Annual Grasses <sup>2</sup>	Perennial Grasses	(V/V)		
	Tunidai didooo	i oronnai arabboo	Ground	Air	
Crop Protect Direct Clethodim 2EC + sodium bentazon	7.37 - 9.2 fl. oz. (0.125 - 0.156 lbs. a.i.) + Refer to product label for use rates.	-	1%	1%	
Crop Protect Direct Clethodim 2EC + sodium acifluorfen	7.37 – 9.2 fl. oz. (0.125 - 0.156 lbs. a.i.) + Refer to product label for use rates.	-	1%	1%	
Crop Protect Direct Clethodim 2EC  + sodium bentazon and sodium acifluorfen	7.37 - 9.2 fl. oz. (0.125 - 0.156 lbs. a.i.) + Refer to product label for use rates.	-	1%	1%	

<sup>1/1</sup> grass regrowth occurs or an additional flush of new grass emerges, make a second application of **Crop Protect Direct Clethodim 2EC** alone (without a tank mix herbicide), according to the appropriate size and rate specifications.

3Always use a crop oil concentrate at the listed rate (but not less than 1 pt./A) in the finished spray volume.

# DIRECTIONS FOR GRASS SUPPRESSION FOR HARVEST EFFICIENCY IN PEANUT (INCLUDING PERENNIAL)

WITH OHOL THOLEST DIRECT CELTHODISE 2EG						
Grass Species	Weed Stage	Rate Fl. Oz./Acre	High Rate			
Annual and perennial grasses that exceed height claimed for control on height charts "DIRECTIONS FOR ANNUAL GRASSES" and "DIRECTIONS FOR PERENNIAL GRASSES"	Up to and including grasses in the seed head stage.	14.7 (0.250 lb. a.i.)	29.5 (0.500 lb. a.i.)			

Add a crop oil concentrate at 1 gt./A by ground to the finished spray volume.

#### Restrictions:

- DO NOT apply as part of a tank mix when applying Crop Protect Direct Clethodim 2EC for grass suppression.
- DO NOT apply more than 29.5 fl. oz. (0.500 lb. a.i.) per acre per application.
- DO NOT apply more than 59.0 fl. oz. (1.000 lb. a.i.) per acre per year.
- DO NOT apply more than 4 applications at the lowest rate, 14.7 fl. oz., or 2 applications at the highest rate, 29.5 fl. oz., per year.
- RTI: For repeat applications, make on a minimum of a 14-day interval.

<sup>&</sup>lt;sup>2</sup>Broadleaf weed control may be reduced when grass populations are tall or dense enough to intercept the spray pattern and prevent them from receiving complete coverage. Tank mixing is not advised in these situations.

#### SUGAR BEFT

# Table 12. CROP PROTECT DIRECT CLETHODIM 2EC TANK MIXED WITH CLOPYRALID, MONOETHANOLAMINE SALT APPLIED TO SUGAR BEET (Refer to the tables above for specific grasses and growth stages.)

Product <sup>2</sup>	Application Rates/Acre <sup>1</sup>			entrate <sup>3</sup> (V/V)
Product <sup>2</sup>	Annual Grasses	Perennial Grasses	Ground	Air
Crop Protect Direct Clethodim 2EC	5.55 - 7.37 fl. oz. (0.094 - 0.125 lb. a.i.)	7.37 - 14.7 fl. oz. (0.125 - 0.250 lb. a.i.)	1%	1%
clopyralid, monoethanolamine salt	Refer to product label for use rates.			

<sup>1/1</sup> grass regrowth occurs or an additional flush of new grass emerges, make a second application of **Crop Protect Direct Clethodim 2EC** alone (without a tank mix herbicide), according to the appropriate size and rate specifications.

#### Table 13. CROP PROTECT DIRECT CLETHODIM 2EC TANK MIXED WITH DESMEDIPHAM OR PHENMEDIPHAM AND DESMEDIPHAM APPLIED TO SUGAR BEET

Product <sup>1</sup>	w	eeds Controlled	Weed Height	Application Rate/Acre <sup>2</sup>	
Floduct	Common Name	Scientific Name	(Inches)	Application hate/Acre-	
Crop Protect Direct Clethodim 2EC + phenmedipham and desmedipham or desmedipham	Barnyardgrass Foxtail Foxtail Millet Wild Oat Wild Proso Millet	Echinochloa crus-galli Setaria spp. Setaria italic Avena fatua Panicum miliaceum	1 to 3 1 to 3 1 to 3 1 to 3 1 to 3	7.37 fl. oz. (0.125 lb. a.i.)	
			See phenmedipham and desmedipham label for rates to contro broadleaf weeds. No additives are advised in the tank mix.		
			See desmedipham label for rates to control broadleaf weeds. No additives are advised in the tank mix.		

If grass regrowth occurs or an additional flush of new grass emerges, make a second application of **Crop Protect Direct Clethodim 2EC** alone (without a tank mix herbicide), according to the appropriate size and rate specifications. **Restriction: Do NOT** use crop oil concentrate. No additives are advised in the tank mix.

The state of the state of the content ato. No additives are advised in the tank mix.

<sup>1</sup>Broadleaf weed control may be reduced when grass populations are tall or dense enough to intercept the spray pattern and prevent them from receiving complete coverage. Tank mixing is not advised in these situations.

2lf grass regrowth occurs or an additional flush of new grass emerges, make a second application of Crop Protect Direct Clethodim 2EC at full label rate with appropriate rate of crop oil concentrate.

# Table 14. CROP PROTECT DIRECT CLETHODIM 2EC PLUS DESMEDIPHAM OR PHENMEDIPHAM AND DESMEDIPHAM TANK MIX FOR 3 SEQUENTIAL APPLICATIONS FOR ANNUAL GRASS CONTROL (MICRO-RATE APPLICATION)

	Application Rates/Acre <sup>1</sup>			eed Oil <sup>2</sup> (V/V)	
Product	Annual Grasses	Grasses Controlled (Inches)	Ground Air		
Crop Protect Direct Clethodim 2EC + desmedipham or phenmedipham and desmedipham	1.83 - 2.77 fl. oz. (0.031 - 0.047 lb. a.i.) + Refer to product labels for use rates.	Green Foxtail (1-2) Yellow Foxtail (1-2) Barnyardgrass (1-2) Wild Oat (1-2) Volunteer Cereals (1-2)	1.5%	1.5%	

<sup>1</sup>Broadleaf weed control may be reduced when grass populations are tall or dense enough to intercept the spray pattern and prevent them from receiving complete coverage. Tank mixing is not advised in these situations.

<sup>2</sup>Always use a methylated seed oil at the listed rate (but not less than 1 pt./A) in the finished spray volume.

<sup>&</sup>lt;sup>2</sup>Broadleaf weed control may be reduced when grass populations are tall or dense enough to intercept the spray pattern and prevent them from receiving complete coverage. Tank mixing is not advised in these situations.

<sup>3</sup>Always use a crop oil concentrate at the listed rate (but not less than 1 pt./A) in the finished spray volume.

#### Directions for Use for Micro-Rate Applications to Sugar Beet

Multiple micro-rate applications of **Crop Protect Direct Clethodim 2EC** in tank mixtures with reduced rates of desmedipham or phenmedipham and desmedipham and methylated seed oils may be applied by air or ground equipment to sugar beet to control early germinating annual grasses listed above. Refer to the desmedipham or phenmedipham and desmedipham product labels for use rates. Favorable climatic conditions (good conditions) for plant growth and development) are essential for adequate weed control. All use precautions and restrictions on the desmedipham and phenmedipham and desmedipham master labels must be followed.

#### Directions for Using Micro-Rate Multiple Applications of Crop Protect Direct Clethodim 2EC Tank Mixes

Apply **Crop Protect Direct Clethodim 2EC** in broadcast applications only at a rate of 1.83 to 2.77 fl. oz./A (0.031 - 0.047 lb. a.i.) in tank mixture with either desmedipham or phenmedipham and desmedipham. Refer to the desmedipham or phenmedipham and desmedipham product labels for use rates. If weed control is not adequate due to climatic conditions, spray coverage or other factors, return to conventional application rates of **Crop Protect Direct Clethodim 2EC** (5.55 - 7.37 fl. oz./A; 0.094 - 0.125 lb. a.i.) and add rates of desmedipham or phenmedipham and desmedipham in tank mixtures with **Crop Protect Direct Clethodim 2EC**. a spray adjuvant is not advised.

#### Use Precautions for Micro-Rate Applications:

Not all weeds will be adequately controlled, even with favorable climatic conditions. Conventional rates of **Crop Protect Direct Clethodim 2EC**, desmedipham or phenmedipham and desmedipham and/or hand labor may be required if multiple micro-rate applications do not adequately control weeds. Plugging of spray nozzles may be encountered due to the potential for formation of a precipitate in the spray solution that is often associated with micro-rate applications. To the extent consistent with applicable law, JABCO, LLC will not be responsible for any nozzle plugging that may occur with the use of multiple micro-rate applications. See **Crop Protect Direct Clethodim 2EC**, desmedipham and phenmedipham and desmedipham master label for further use precautions.

Restriction: DO NOT use methylated seed oil.

## **Ground Application**

Use of sufficient spray volumes and pressure is essential to ensure complete coverage. Use a minimum of 10 gals. and a maximum of 20 gals. of spray solution per acre. Spray pressures must reflect a minimum of 30 PSI and a maximum of 60 PSI at the nozzle. **DO NOT** use flood nozzles.

#### Aerial Application

Use of sufficient spray volumes is essential to ensure complete coverage. Use a minimum of 5 gals. and a maximum of 15 gals. of spray solution per acre.

## Table 15. TANK MIX APPLICATION OF CROP PROTECT DIRECT CLETHODIM 2EC AND FUNGICIDES FOR CONTROL OF GRASS WEEDS AND DISEASES IN SUGAR BEET

Product <sup>2</sup>	Application	Crop Oil Concentrate <sup>3</sup>	
Floudet	Annual Grasses	Perennial Grasses	(V/V)
Crop Protect Direct Clethodim 2EC + tetraconazole	5.55 - 7.37 fl. oz. (0.094 - 0.125 lb. a.i.) + Refer to product label for use rates.	7.37 - 14.7 fl. oz. (0.125 - 0.250 lb. a.i.) + Refer to product label for use rates.	1%

<sup>1</sup>f grass regrowth occurs, or an additional flush of new grass emerges, make a second application of **Crop Protect Direct Clethodim 2EC** alone (without a tank mix fungicide), according to the appropriate size and rate requirements.

3Always use a crop oil concentrate at the listed rate (but not less than 1 pt./A) in the finished spray volume.

<sup>&</sup>lt;sup>2</sup>Refer to Crop Protect Direct Clethodim 2EC and fungicide label for rates and weeds and diseases controlled.

Table 16. TANK MIX APPLICATION OF CROP PROTECT DIRECT CLETHODIM 2EC AND INSECTICIDES FOR CONTROL OF GRASS WEEDS AND INSECTS IN ALFALFA, COTTON, MINT, PEANUT (INCLUDING PERENNIAL), SOYBEAN AND SUNFLOWER

	Application Rates/Acre <sup>1</sup>			Crop					
Product <sup>2</sup>	Annual Grasses	Perennial Grasses	Crop Oil Concentrate (V/V) <sup>3</sup>	Alfalfa⁴	Cotton	Peppermint & Spearmint Tops <sup>4,5</sup>	Peanut	Soybean	Sunflower
Crop Protect Direct Clethodim 2EC + acephate	5.55 - 7.37 fl. oz. (0.094 - 0.125 lb. a.i.) +	5.55 - 7.37 fl. oz. (0.094 - 0.125 lb. a.i.) +	1%		х	Х	х		
асернате	Refer to product labels for use rates.	Refer to product labels for use rates.							
Crop Protect Direct Clethodim 2EC	5.55 - 7.37 fl. oz. (0.094 - 0.125 lb. a.i.)	7.37 - 14.7 fl. oz. (0.125 - 0.250 lb. a.i.)	1%		Х	Х	Х	Х	
acephate <sup>6</sup>	Refer to product label for use rates.	Refer to product label for use rates.							
Crop Protect Direct Clethodim 2EC	5.55 - 7.37 fl. oz. (0.094 - 0.125 lb. a.i.)	7.37 – 14.7 fl. oz. (0.125 - 0.250 lb. a.i.)	1%		Х		Х		
fenpropathrin	Refer to product label for use rates.	Refer to product label for use rates.							
Crop Protect Direct Clethodim 2EC	5.55 - 7.37 fl. oz. (0.094 - 0.125 lb. a.i.)	7.37 - 14.7 fl. oz. (0.125 - 0.250 lb. a.i.)	1%						Х
esfenvalerate	+ Refer to product label for use rates.	Refer to product label for use rates.							
Crop Protect Direct Clethodim 2EC	5.55 - 7.37 fl. oz. (0.094 - 0.125 lb. a.i.)	7.37 - 14.7 fl. oz. (0.125 - 0.250 lb. a.i.)	1%						Х
lambda-cyhalothrin	Refer to product label for use rates.	Refer to product label for use rates.							
Crop Protect Direct Clethodim 2EC	9.2 - 14.7 fl. oz. <sup>7</sup> (0.156 - 0.250 lb. a.i.)	9.2 - 14.7 fl. oz. (0.156 - 0.250 lb. a.i.)	1%	х					
lambda-cyhalothrin	Refer to product label for use rates.	Refer to product label for use rates.							
Crop Protect Direct Clethodim 2EC + cyfluthrin	9.2 - 14.7 fl. oz. <sup>7</sup> (0.156 - 0.250 lb. a.i.)	9.2 - 14.7 fl. oz. (0.156 - 0.250 lb. a.i.)	1%	х					
-,	Refer to product label for use rates.	Refer to product label for use rates.							_
Crop Protect Direct Clethodim 2EC	9.2 - 14.7 fl. oz. <sup>7</sup> (0.156 - 0.250 lb. a.i.) +	9.2 - 14.7 fl. oz. <sup>7</sup> (0.156 - 0.250 lb. a.i.) +	1%	х					
dimethoate	Refer to product label for use rates.	Refer to product label for use rates.							
Crop Protect Direct Clethodim 2EC	9.2 - 14.7 fl. oz. <sup>7</sup> (0.156 - 0.250 lb. a.i.)	9.2 - 14.7 fl. oz. (0.156 - 0.250 lb. a.i.)	1 pt.8	Х					
chlorpyrifos	Refer to product label for use rates.	Refer to product label for use rates.							
Crop Protect Direct Clethodim 2EC	9.2 - 14.7 fl. oz. <sup>7</sup> (0.156 - 0.250 lb. a.i.)	9.2 - 14.7 fl. oz. (0.156 - 0.250 lb. a.i.)	1%	Х					
permethrin	Refer to product label for use rates.	Refer to product label for use rates.							

<sup>1</sup>f grass regrowth occurs, or an additional flush of new grass emerges, make a second application of Crop Protect Direct Clethodim 2EC alone (without a tank mix insecticide), according to the appropriate size and rate requirements.

<sup>&</sup>lt;sup>2</sup>Refer to Crop Protect Direct Clethodim 2EC and insecticide labels for rates and weeds and insects controlled.

<sup>3</sup>Always use a crop oil concentrate at the listed rate (but not less than 1 pt./A) in the finished spray volume.

<sup>4</sup>Certain insecticides may cause temporary phytotoxic symptoms on alfalfa and mint foliage. Refer to the insecticide label for further information. It is suggested that before using any of these insecticides/herbicide tank mixtures, that a small area of the field be treated first and observations for crop injury be made before treating the whole field.

The Crop Protect Direct Clethodim 2EC rate is 5.55 - 7.37 fl. oz./A (0.125 lb. a.i.) for annual grass control in baby mint, minimum of 7.37 fl. oz./A (0.125 lb. a.i.) for annual grass control in established mint and 7.37 - 14.7 fl. oz./A (0.125 - 0.250 lb. a.i.) for perennial grass control. Crop oil concentrate is added at the rate of 1.0 to 2.0 pts /A

<sup>6</sup>Insecticide tank mix use with acephate 90% in soybean is permitted only in a State having an approved Section 24(c) registration for acephate 90% use in soybean.

<sup>&</sup>lt;sup>7</sup>The Crop Protect Direct Clethodim 2EC rate is 5.55 - 7.37 fl. oz./A (0.094 - 0.125 lb. a.i.) for annual grass control in seedling alfalfa.

For the Crop Protect Direct Clethodim 2EC plus chlorpyrifos tank mix. reduce the adjuvant rate down to 1.0 pt./A when tank mixed with chlorpyrifos.

Table 17. ROUNDUP READY VOLUNTEER CORN CONTROL IN ROUNDUP READY SOYBEAN WITH CROP PROTECT DIRECT CLETHODIM 2EC TANK MIX

Roundup Ready Volunteer Corn Height(Inches)	Crop Protect Direct Clethodim 2EC Rate Fl. Oz./A	Glyphosate* Rate for Formulations <u>With</u> Built in Adjuvant	Adjuvant
<12	3.7 (0.063 lbs. a.i.)		N
12 to 18	4.6 (0.078 lbs. a.i.)	Refer to product label for use rates.	Non-ionic surfactant @ 0.125 to 0.25% v/v plus ammonium sulfate @ 8.5 to 17 lbs. per 100 gals. of carrier
18 to 24	5.55 (0.094 lb. a.i.)		ibs. per 100 gais. of carrier
Roundup Ready Volunteer Corn Height (Inches)	Crop Protect Direct Clethodim 2EC Rate fl. oz./A	Glyphosate* Rate for Formulations <u>Without</u> Built in Adjuvant	Adjuvant
<12	3.7 (0.063 lbs. a.i.)		
12 to 18	4.6 (0.078 lbs. a.i.)	Refer to product label for use rates.	Crop oil concentrate @ 1 pt./A plus ammonium sulfate @ 8.5 to 17 lbs. per 100 gals. of carrier
18 to 24	5.55 (0.094 lb. a.i.)		100 gaio. Of barrior
*Glyphosate formulation must be labeled	d for use on Roundup Ready soybean.		

#### THE MOST RESTRICTIVE LABELING OF ANY PRODUCT USED IN A TANK MIX MUST BE FOLLOWED.

- Apply only to actively growing grass and broadleaf weeds at advised height or growth stage listed on each label.
- Apply under favorable soil moisture and humidity which exist a few days after rainfall or within 7 days after irrigation.
- . This tank mix may be applied post-emergence to Roundup Ready soybean up through the full flowering stage.
- Avoid contact with foliage, green stems, or fruit of crops, or any desirable plants and trees, other than soybean with the Roundup Ready gene as severe injury or destruction will result.

#### Restrictions:

- . DO NOT tank mix Crop Protect Direct Clethodim 2EC when broadleaf weeds are tall and/or dense enough to prevent proper grass coverage.
- DO NOT apply less than 60 days before harvest.
- DO NOT allow the Crop Protect Direct Clethodim 2EC plus Roundup to mist, drip, drift or splash onto desirable vegetation as minute quantities of the tank mix can
  cause severe damage or destruction to the crops, plants or other areas on which treatment was not intended. The likelihood of injury occurring from drift of this
  product is greatest when winds are gusty or in excess of 5 miles per hour. Even under lesser wind velocities, avoid conditions that allow spray drift to occur including
  combinations of spray pressure and nozzle type that will result in fine particles (mist) that are likely to drift.

## DIRECTIONS FOR USE FOR FALLOW LAND

Crop Protect Direct Clethodim 2EC may be used to control annual and perennial grasses in land that has been left fallow the previous year and other non-producing agricultural areas. Apply Crop Protect Direct Clethodim 2EC at 5.55 - 7.37 fl. oz./A (0.094 lb. a.i.) for annual grasses and 7.37 - 14.7 fl. oz./A (0.125 - 0.250 lb. a.i.) for perennial grasses. When both grass and broadleaf weeds are the target pest, Crop Protect Direct Clethodim 2EC may be tank mixed with 2,4-D ester or sodium salt of dicamba for broad-spectrum control. When both annual and perennial grasses occur in the same field, use a minimum of 7.37 fl. oz./A (0.125 lb. a.i.) Crop Protect Direct Clethodim 2EC rate.

Use a minimum spray volume of 5 gals./A for aerial applications and 15 gals./A for ground applications.

Apply only to actively growing grasses when the first grass reaches the advised weed height as specified by the Directions for Annual and Perennial Grasses section of this label.

Annual grasses that emerge after the Crop Protect Direct Clethodim 2EC application will not be controlled, and a second application may be necessary.

The control of perennial grasses may require more than 1 application in non-tilled areas.

## Restrictions:

- DO NOT apply more than 7.37 fl. oz. (0.125 lb. a.i.) of Crop Protect Direct Clethodim 2EC per acre per application to Annual Grasses and 14.7 fl. oz. (0.250 lb. a.i.) of Crop Protect Direct Clethodim 2EC per acre per application to Perennial Grasses.
- DO NOT apply more than 29.5 fl. oz. (0.500 lb. a.i.) of Crop Protect Direct Clethodim 2EC per acre per year.
- **DO NOT** apply more than 5 applications at the 5.55 fl. oz. (0.094 lb. a.i.) use rate for Annual Grasses, or 4 applications at 7.37 fl. oz. (0.125 lb. a.i.) rate for Perennial Grasses per year.
- · RTI: For repeat applications, make on a minimum of a 14-day interval.
- DO NOT plant any crop for 30 days after application, unless clethodim is registered for use in that crop.
- . DO NOT apply to grasses that have tillered, formed seedheads, or exceeded specified growth stage.
- DO NOT use flood jet nozzles.
- . DO NOT apply to drought stressed grasses.
- DO NOT mow area for 14 days before or after the Crop Protect Direct Clethodim 2EC application.

#### Table 18. CROP PROTECT DIRECT CLETHODIM 2EC IN TANK MIXES TO CONTROL ANNUAL AND PERENNIAL GRASSES IN FALLOW LAND

Product	Application Rates/Acre <sup>1</sup>			Crop Oil Concentrate <sup>2</sup> (V/V)	
	Annual Grasses	Perennial Grasses	Ground	Air	
Crop Protect Direct Clethodim 2EC + 2,4-D ester or sodium salt of dicamba	5.55 - 7.37 fl. oz. (0.094 - 0.125 lb. a.i.) + Refer to product labels for use rates.	7.37 - 14.7 fl. oz. (0.125 - 0.250 lb. a.i.)	1%	1%	

<sup>&</sup>lt;sup>1</sup>Refer to **Crop Protect Direct Clethodim 2EC** label for weed height and species control. Review sodium salt of dicamba and 2,4-D labels for crop restrictions, use rates and weeds controlled.

# Table 19. CROP PROTECT DIRECT CLETHODIM 2EC FOR THE CONTROL AND/OR SUPPRESSION OF TALL FESCUE IN NATIVE PRAIRIE WARM-SEASON GRASS RESTORATION PROJECTS

Product	Product Rates	Grass Weeds Controlled/Suppressed		Weed Stages
		Common Name	Scientific Name	
Crop Protect Direct Clethodim 2EC	9.2 to 11.08 fl. oz./A (0.156 - 0.188 lb. a.i.)	Tall Fescue	Festuca arundinacea	4 to 6 inches tall (40 to 60% green-up)

Adjuvant: Crop Protect Direct Clethodim 2EC must be applied with crop oil concentrate at 1 qt./A, plus a spray grade ammonium sulfate at 2.5 - 4.0 lbs./A.

Mixing Order: Thoroughly mix spray grade ammonium sulfate in water, add Crop Protect Direct Clethodim 2EC, then add crop oil concentrate.

#### Precautions:

- Burn or mow fields a minimum of 21 days before application to remove excess crop residue.
- Apply in the spring, at 40 to 60% tall fescue green-up, before emergence of warm-season grasses.
- Apply in a minimum of 15 to 20 gals, of water per acre at a spray pressure of 40 to 60 PSI at the nozzle. Apply using flat fan or hollow cone nozzles.
- Apply only to fields that have warm-season grasses established for 2 years.
- · Applications of Crop Protect Direct Clethodim 2EC to emerged warm-season grasses may cause injury.

Note: Crop Protect Direct Clethodim 2EC applications are most effective if applied when average nighttime temperatures are consistently greater than or equal to 47°F.

#### Restrictions:

- DO NOT mow area for 14 days after the Crop Protect Direct Clethodim 2EC application.
- . DO NOT use flood jet nozzles.
- . DO NOT apply to warm-season grasses grown for seed.
- DO NOT graze treated fields or feed treated forage and or hav to livestock.
- . DO NOT plant any crop for 30 days after application, unless clethodim is registered for use in that crop.

#### Table 20. CROP PROTECT DIRECT CLETHODIM 2EC FOR THE SUPPRESSION OF TALL FESCUE SEED-HEADS IN NON-PRODUCING AGRICULTURAL AREAS

Product	Product Rate	Suppression	Application Timing
Crop Protect Direct Clethodim 2EC	1.36 - 1.83 fl. oz./A	Tall Fescue Seed-Heads (Festuca	(50 to 90% Tall Fescue green-up)
	(0.023 - 0.031 lb. a.i.)	arundinacea)	]

Adjuvant: Crop Protect Direct Clethodim 2EC must be applied with crop oil concentrate at 1 qt./A, plus a spray grade ammonium sulfate at 2.5 to 4.0 lbs./A.

Mixing Order: Thoroughly mix spray grade ammonium sulfate in water, add Crop Protect Direct Clethodim 2EC, then add crop oil concentrate.

#### Precautions:

- . Apply at 50 to 90% tall fescue green-up.
- Use the higher Crop Protect Direct Clethodim 2EC rate if less tall fescue green matter is present.
- Apply in a minimum of 15 to 20 gals, of water per acre at a spray pressure of 40 to 60 PSI at the nozzle. Apply using flat fan or hollow cone nozzles.
- 2,4-D ester may be added to this tank mix for broadleaf control (see 2,4-D ester label for weeds controlled).

## Restrictions:

- DO NOT mow area for 14 days after the Crop Protect Direct Clethodim 2EC application.
- . DO NOT use flood nozzles.
- DO NOT graze treated fields or feed treated forage and/or hav to livestock.
- DO NOT plant any crop for 30 days after application, unless clethodim is registered for use in that crop.

#### DIRECTIONS FOR USE IN ORNAMENTALS

For ornamental plant uses, Crop Protect Direct Clethodim 2EC can be used to control labeled grass weeds in greenhouses, bathhouses, shadehouses, and around outdoor ornamentals, including nurseries, parks, roadside plantings, and structure landscapes. The plants listed below have been tested for use with Crop Protect Direct Clethodim 2EC applications. See tables with listed ornamentals (ornamental trees, ground covers, garden flowers and plants, and shrubs.

Use Rates Per Acre: 5.55 - 14.7 fl. oz. (0.094 - 0.25 lb. a.i.)

Always use a crop oil concentrate or methylated seed oil containing at least 15% emulsifier at the listed rate (but not less than 1 pt./A) in the finished spray volume.

#### Special Use Instructions

Add a non-ionic surfactant containing at least 80% active ingredient at the rate of 1 pt. per 50 gals. (0.25% v/v).

Use of crop oil concentrate is not advised since it may injure flowers and foliage.

For repeat applications, make on a minimum of a 14-day interval.

## IMPORTANT

Crop Protect Direct Clethodim 2EC successfully controls weeds in newly transplanted and established non-grassy ornamentals. Plant sensitivity to Crop Protect Direct Clethodim 2EC at labeled rates has been found to be acceptable for the indicated genera and species listed below. Due to variability within species, crop growth stage, environmental conditions, and application techniques, it is advised that the user determine if herbicide can be used safely on a few plants before widespread application. Neither the seller nor the manufacturer of Crop Protect Direct Clethodim 2EC have investigated the safety factor to ornamental plants not listed on the label.

The following plants are not sensitive to Crop Protect Direct Clethodim 2EC applications:

ORNAMENTAL TREES				
Common Name	Scientific Name	Common Name	Scientific Name	
Alder, Red	Alnus rubra	Golden Chain Tree	Laburnum anagyroides	
Ash	Fraxinus spp.	Maples	Acer spp.	
Basswood	Tilia spp.	Mulberry, White	Morus alba	
Birch, European White	Betula pendula	Oaks	Quercus spp.	
Birch, River	Betula nigra	Olive, Wild	Elaeagnus angustifolia	
Birch, White	Betula papyrifera	Redbud, Eastern	Cercis Canadensis	
Crabapple, Flowering	Malus halliana	Sweet Gum, American	Liquidambar styraciflua	
Dogwood, Flowering	Cornus florida			
	GR	OUND COVERS	•	
Common Name	Scientific Name	Common Name	Scientific Name	
Bugleweed, Carpet	Ajuga reptans	Moneywort	Lysimachia nummularia	
lvy, English	Hedera helix	Mondo Grass, White	Ophiopogon jaburan	
Japanese Spurge	Pachysandra terminalis	Mondo Grass Dwarf	Ophiopogon japonicas	
Lilyturf	Liriope muscari	Periwinkle, Lesser	Vinca minor	
	GARDEN F	LOWERS AND PLANTS	•	
Common Name	Scientific Name	Common Name	Scientific Name	
Ageratum	Ageratum spp.	Jasmine Tobacco	Nicotiana alata	
Alyssum*, Sweet	Lobularia maritima	Loosestrife	Lythrum salicaria	
Asparagus Fern	Asparagus setaceus	Marigold	Tagetes spp.	
Bleeding Heart	Dicentra spectabilis	Partridgeberry	Mitchella repens	
Cast Iron Plant	Aspidistra elatior	Petunia*	Petunia hybrida	
Chrysanthemum	Chrysanthemum spp.	Phlox	Phlox spp.	
Cinquefoil	Potentilla spp.	Pinks	Dianthus spp.	
Coleus	Coleus spp.	Portulaca	Portulaca grandiflora	
Coralbells	Heuchera sanguinea	Salvia	Salvia spp.	
Cranesbill	Geranium spp.	Saxifrage	Saxifrage spp.	
Dahlia	Dahlia spp.	Sedum	Sedum spp.	
Daisy, Trailing African	Osteospermum fruticosum	Selloum	Philodendron selloum	
Daylily	Hemerocallis spp.	Snapdragon*	Antirrhinum majus	
Dusty Miller	Senecio cineraria	Sweet Flag	Acorus gramineus	
Euonymus	Euonymus spp.	Tickseed	Coreopsis grandiflora	
Gazania	Gazania spp.	Touch-Me-Not	Impatiens spp.	
Geranium, House	Pelargonium hortorum	Verbena	Verbena spp.	
	0 1 1 111	Violet	Viola spp.	
Heather, False	Cuphea hyssopifolia	VIOIGE	viola opp.	
Heather, False Hosta	Hosta fortunei	Yarrow, Common	Achillea millefolium	

(continued)

The following plants are not sensitive to Crop Protect Direct Clethodim 2EC applications: (continued)

SHRUBS				
Common Name	Scientific Name	Common Name	Scientific Name	
Abelia	Abelia spp.	Indian Hawthorn	Raphiolepis indica	
Anise, Purple	Illicium floridanum	Jasmine	Jasminum spp.	
Aucuba	Aucuba spp.	Jasmine, Asiatic	Trachelospermum asiaticum	
Azalea*	Rhododendron spp.	Jasmine, Star	Trachelospermum jasminoides	
Bamboo	Bambusa spp.	Juniper	Juniperus spp.	
Barberry, Japanese	Berberis thunbergii	Lantana	Lantana spp.	
Barberry, Magellan	Berberis buxifolia	Nandina*, Bamboo Heavenly	Nandinia domestica	
Bayberry	Myrica pensylvanica	Oleander, Common	Nerium oleander	
Bottlebrush	Callistemon citrinus	Oregon Grape	Mahonia aquifolium	
Boxwood, Common	Buxus sempervirens	Photinia	Photinia spp.	
Camellia, Common	Camellia japonica	Pittosporum	Pittosporum spp.	
Candytuft	Iberis sempervirens	Podocarpus	Podocarpus spp.	
Cleyera	Cleyera japonica	Privet	Ligustrum spp.	
Coralberry	Ardisia crenata	Pyracantha	Pyracantha spp.	
Crape Myrtle	Lagerstroemia indica	Rhododendron	Rhododendron spp.	
Coyote Brush	Baccharis pilularis	Rose	Spiraea bumalda	
Fig, Creeping	Ficus pumila	Sweet Olive	Osmanthus fragrans	
Gardenia	Gardenia spp.	Viburnum	Viburnum tinus	
Holly	Iles spp.	Wisteria	Wisteria spp.	
Honeysuckle	Lonicera spp.	Yellow Sage/Shrub Verbena	Lantana camara	
*Slight foliage or flower speckling h	as been observed on these species.		·	

#### DIRECTIONS FOR ANNUAL GRASSES IN ORNAMENTALS

Apply only to actively growing grasses at specified weed heights. Apply when the first grass weed species in a mixed grass and weed population reaches the specified growth stage for treatment. Use the high rate under heavy grass pressure and/or when grasses are at maximum height.

Restrictions:

- DO NOT apply more than 14.7 fl. oz. (0.250 lb. a.i.) per acre per application.
- DO NOT apply more than 59.0 fl. oz. (1.000 lb. a.i.) per acre per year.
- **DO NOT** apply more than 4 applications at 7.37 14.7 fl. oz. (0.125 0.250 lb. a.i.) per year.
- RTI: For repeat applications, make on a minimum of a 14-day interval.

# **Annual Grasses Table**

Grass Species	Scientific Name	Weed Height* (Inches)	Rate Fl. Oz./Acre <sup>1</sup>	High Rate <sup>2</sup>
Barnyardgrass	Echinochloa crus-galli	2 to 8	7.37	14.7
Broadleaf Signalgrass	Brachiaria platyphylla	2 to 6	7.37	14.7
Brome				
California	Bromus carinatus	2 to 6	7.37	14.7
Cheat	Bromus secalinus	2 to 6	7.37	14.7
Downy	Bromus tectorum	2 to 6	7.37	14.7
Ripgut	Bromus diandrus	2 to 6	7.37	14.7
Canarygrass	Phalaris canariensis	1 to 4	7.37	14.7
Crabgrass				
Hairy	Digitaria adscendens	2 to 6**	7.37	14.7
Large	Digitaria sanguinalis	2 to 6**	7.37	14.7
Smooth	Digitaria ischaemum	2 to 6**	7.37	14.7
Southern	Digitaria ciliaris	2 to 6**	7.37	14.7
Crowfootgrass	Dactyloctenium aegyptium	2 to 6**	7.37	14.7

(continued)

# Annual Grasses Table (continued)

Grass Species	Scientific Name	Weed Height* (Inches)	Rate Fl. Oz./Acre <sup>1</sup>	High Rate <sup>2</sup>
Fall Panicum	Panicum dichotomiflorum	2 to 8	7.37	14.7
Field Sandbur	Cenchrus incertus	2 to 6	7.37	14.7
Foxtail				
Giant	Setaria faberi	2 to 12	7.37	14.7
Green	Setaria viridis	2 to 8	7.37	14.7
Yellow	Setaria glauca	2 to 8	7.37	14.7
Goosegrass	Eleusine indica	2 to 6**	7.37	14.7
Itchgrass	Rottboellia cochin	2 to 6	7.37	14.7
Junglerice	Echinochloa colona	2 to 6	7.37	14.7
Lovegrass (Stinkgrass)	Eragrostis cilianensis	2 to 6	7.37	14.7
Rabbitsfoot Grass	Polypogon monspeliensis	1 to 4	7.37	14.7
Red Rice	Oryza sativa	1 to 3	7.37	14.7
Ryegrass				
Hardy	Lolium remotum	2 to 6	7.37	14.7
Italian	Lolium multiflorum	2 to 6	7.37	14.7
Seedling Johnsongrass	Sorghum halepense	4 to 10	7.37	14.7
Shattercane	Sorghum bicolor	6 to 18	7.37	14.7
Southwestern Cupgrass	Eriochloa gracilis	2 to 6	7.37	14.7
Sprangletop				
Amazon	Leptochloa panicoides	2 to 6	7.37	14.7
Bearded	Leptochloa fascicularis	2 to 6	7.37	14.7
Mexican	Leptochloa uninervia	2 to 6	7.37	14.7
Red	Leptochloa filiformis	2 to 6	7.37	14.7
Texas Panicum	Panicum texanum	2 to 6	7.37	14.7
Volunteer Cereals				
Barley	Hordeum vulgare	2 to 6	7.37	14.7
Oats	Avena sativa	2 to 6	7.37	14.7
Rye	Secale cereale	2 to 6	7.37	14.7
Wheat	Triticum aestivum	2 to 6	7.37	14.7
Volunteer Corn	Zea mays	4 to 12	5.55	7.37
Volunteer Corn	Zea mays	12 to 24	7.37	14.7
Volunteer Grain Sorghum	Sorghum bicolor	8 to 12	7.37	14.7
Wild Oats	Avena fatua	2 to 6	7.37	14.7
Wild Proso Millet	Panicum miliaceum	2 to 10	7.37	14.7
Witchgrass	Panicum capillare	2 to 8	7.37	14.7
Woolly Cupgrass	Eriochloa villosa	2 to 8	7.37	14.7

Add a non-ionic surfactant containing at least 80% active ingredient at the rate of 1 pt. per 50 gals. (0.25% v/v).

<sup>\*</sup>Generally occurs between 3-leaf stage and tillering.

<sup>\*\*</sup>Length of lateral growth.

<sup>17.37</sup> fl. oz./A (0.125 lb. a.i./A) = approximately 0.17 fl. oz./1,000 sq. ft. 214.7 fl. oz./A (0.250 lb. a.i./A) = approximately 0.34 fl. oz./1,000 sq. ft.

DIRECTIONS FOR ANNUAL BLUEGRASS CONTROL WITH CROP PROTECT DIRECT CLETHODIM 2EC IN ORNAMENTALS				
Grass Species Weed Stage Rate Fl. Oz./Acre High Rate				
Annual Bluegrass ( <i>Poa annua</i> )	to 4-leaf	5.55 (0.094 lb.a.i.)	14.7 (0.250 lb. a.i.)	

Apply under favorable soil moisture and humidity that exists within a few days after rainfall or within 7 days after irrigation. Grass needs to be actively growing at time of application(s). Apply at weed stage indicated on the label, as reduced control can be expected with most mature annual bluegrass. Use the high rate under heavy grass pressure and/or when annual bluegrass is more mature. Add a non-ionic surfactant containing at least 80% active ingredient at the rate of 1 pt. per 50 gals. (0.25% v/v).

#### Restrictions:

- DO NOT apply more than 14.7 fl. oz. (0.250 lb. a.i.) per acre per application.
- DO NOT apply more than 29.5 fl. oz. (0.500 lb. a.i.) per acre per year.
- DO NOT apply more than 4 applications at the lowest rate, 5.55 fl. oz. (0.094 lb. a.i.), or 2 applications at the highest rate, 14.7 fl. oz. (0.250 lb. a.i.), per year.
- . RTI: For repeat applications, make on a minimum of a 14-day interval.

#### DIRECTIONS FOR PERENNIAL GRASSES

Apply only to actively growing grasses at specified weed heights.

Apply when the first grass weed species in a mixed grass weed population reaches the specified growth stage for treatment.

Use the high rate under heavy grass pressure and/or when grasses are at maximum height.

#### Restrictions:

- **DO NOT** apply more than 14.7 fl. oz. (0.250 lb. a.i.) per acre per application.
- DO NOT apply more than 29.5 fl. oz. (0.500 lb. a.i.) per acre per year.
- . DO NOT apply more than 2 applications per year.
- RTI: For repeat applications, make on a minimum of a 14-day interval.

Grass Species	Weed Height (Inches)	Rate Fl. 0z./Acre <sup>1</sup>	High Rate <sup>2</sup>
Bermudagrass (Cynodon dactylon)			
First Application	3 (or up to 6" runners)	7.37	14.7
Repeat Application(s) (if regrowth occurs)	3 (or up to 6" runners)	7.37	14.7
Quackgrass (Elytrigia repens)			
First Application	4 to 8	7.37	14.7
Repeat Application(s) (if regrowth occurs)	4 to 8	7.37	14.7
Rhizome Johnsongrass (Sorghum halepense)			
First Application	12 to 24	7.37	14.7
Repeat Application(s) (if regrowth occurs)	6 to 18	5.55	7.37
Wirestem Muhly ( <i>Muhlenbergia frondosa</i> )			
First Application	4 to 8	7.37	14.7
Repeat Application(s) (if regrowth occurs)	4 to 8	7.37	14.7

Add a non-ionic surfactant containing at least 80% active ingredient at the rate of 1 pt. per 50 gals. (0.25% v/v).

 $^{1}7.37$  fl. oz./A (0.125 lb. a.i./A) = approximately 0.17 fl. oz./1,000 sq. ft.

<sup>2</sup>14.7 fl. oz./A (0.250 lb. a.i./A) = approximately 0.34 fl. oz./1,000 sq. ft.

# STORAGE AND DISPOSAL

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

PESTICIDE STORAGE: Keep pesticide in original container. DO NOT put concentrate or dilute into food or drink containers. Store in cool, dry place. DO NOT store diluted spray.

PESTICIDE DISPOSAL: Open dumping is prohibited. Waste resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

#### CONTAINER HANDLING [Less Than or Equal to 5 Gallons]:

Non-refillable plastic container. **D0 N0T** reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or 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. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures approved by State and local authorities.

#### 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 JABCO, 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 JABCO, LLC and Seller harmless for any claims relating to such factors.

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