



OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION

WASHINGTON, D.C. 20460

March 24, 2025

SENT BY EMAIL

Fredric Shelley
freddy.shelley@syntechresearch.com
REDEAGLE INTERNATIONAL LLC

Subject: Labeling Notification per Pesticide Registration Notice (PRN) 98-10 - Revise poison control hotline information
Product Name: CLETHODIM 2E
Admin Number: 85678-23
EPA Receipt Date: 09/18/2024
Action Case Number: 00630150

Dear Fredric Shelley:

The U.S. Environmental Protection Agency is in receipt of your application for notification under Pesticide Registration Notice 98-10 for the above referenced product. The EPA has conducted a review of this request for its applicability under PRN 98-10 and finds that the action requested falls within the scope of PRN 98-10.

The labeling submitted with this application has been stamped "Notification" and will be placed in our records.

Should you wish to add/retain a reference to your company's website on your label, then please be aware that the website becomes labeling under the Federal Insecticide, Fungicide, and Rodenticide Act and is subject to review by the EPA. If the website is false or misleading, the product will be considered to be misbranded and sale or distribution of the product is unlawful under FIFRA section 12(a)(1)(E). 40 CFR § 156.10(a)(5) lists examples of statements the EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product's label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the EPA find or if it is brought to our attention that a website contains statements or claims substantially differing from statements or claims made in connection with obtaining a FIFRA section 3 registration, the website will be referred to the EPA's Office of Enforcement and Compliance Assurance.

If you have questions, please contact Rebecca Lasko via email at lasko.rebecca@epa.gov.

Sincerely,

Rebecca Lasko for

Heather McFarley, PM 24, FHB, RD
Office of Pesticide Programs

NOTIFICATION

[MASTER LABEL]

85678-23

The applicant has certified that no changes, other than those reported to the Agency have been made to the labeling. The Agency acknowledges this notification by letter dated:

03/24/2025

CLETHODIM

GROUP

1

HERBICIDE

CLETHODIM 2E**ACTIVE INGREDIENT:**

*Clethodim 26.4%

OTHER INGREDIENTS:** 73.6%**TOTAL:** 100.0%

*(E)-2[1-[[[3-chloro-2-propenyl]oxy]imino]propyl]-5-[2-(ethylthio)propyl]-3-hydroxy-2-cyclohexen-1-one

**Contains Petroleum Distillates

Contains: 2.0 lbs. Clethodim per gallon

KEEP OUT OF REACH OF CHILDREN**CAUTION**

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle.

(If you do not understand the label, find someone to explain it to you in detail.)

FIRST AID**IF SWALLOWED:**

- Call a poison control center or doctor immediately for treatment advice.
- 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 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 further treatment advice.

IF IN EYES:

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

NOTE TO PHYSICIAN: May pose an aspiration pneumonia hazard. Contains petroleum distillate.**HOTLINE NUMBERS**

FOR CHEMICAL EMERGENCY: Spill, leak, fire, exposure, and accident call CHEMTREC **1-800-424-9300**. 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 the Poison Control Center: **1-800-222-1222**. Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

For emergency information, call the National Pesticides Information Center (NPIC) at **1-800-858-7378**, Mon. - Fri., 8:00 a.m. to 12:00 p.m. Pacific Time or your poison control center at **1-800-222-1222**.

See inside label booklet for additional Precautionary Statements.

EPA Reg. No.: 85678-23**EPA Est. No.:****NET CONTENTS:** _____**Manufactured For:**

RedEagle International LLC

5143 S. Lakeland Dr., Suite 4

Lakeland, FL 33813

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

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

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Some materials that are chemical-resistant to this product are listed below.

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves made of Barrier Laminate or Viton $\geq$ 14 mils
- Shoes plus socks
- Protective eyewear

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:

- Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing 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: Hays 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 OR 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.

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

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

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of

agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about Personal Protective Equipment (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, such as plants, soil, or water, is:

- Coveralls
- Chemical-resistant gloves, made of Barrier Laminate or Viton $\geq$ 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 or allow other persons to enter treated areas without protective clothing until sprays have dried.

TANK MIXES

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.

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

CHEMIGATION

May be applied to onions and garlic by sprinkler irrigation systems. Do not apply by chemigation to any other crop, or to this crop using any other type of irrigation system.

MANDATORY SPRAY DRIFT MANAGEMENT

Aerial Applications:

- Do not release 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 $\frac{1}{2}$ swath displacement upwind at the downwind edge of the field.
- Nozzles must be oriented so the spray is directed towards 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:

- Apply with the nozzle height recommended 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.
- Applicators are required to use a medium or coarser droplet size (ASABE S572.1)
- 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 recommended 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 nozzle designed to reduce drift.

Controlling Droplet Size – Aircraft

- Adjust Nozzles – Follow nozzle manufacturers recommendations for setting up nozzles. Generally, to reduce fine droplets, nozzles should be oriented parallel with the airflow in flight.

BOOM HEIGHT – Ground Boom

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

RELEASE HEIGHT – Aircraft

Higher release heights increase with 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 ground fog and 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

CLETHODIM 2E is classified as a Group 1 herbicide. Herbicide resistance is defined as the inherited ability of a plant to survive and reproduce following exposure to a dose of herbicide normally lethal to the wild type. In a plant, resistance may be naturally occurring or induced by such techniques as genetic engineering or selection of variants produced by tissue culture or mutagenesis. Any weed population may contain or develop plants that are naturally resistant to CLETHODIM 2E and other Group 1 herbicides. Weed species with acquired resistance to Group 1 herbicides may eventually dominate the weed population if Group 1 herbicides are used repeatedly in the same field or in successive years as the primary method of control for targeted species. This may result in partial or total loss of control of those species by CLETHODIM 2E or other Group 1 herbicides.

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

- Plant into weed-free fields and keep fields as weed-free as possible.
- To the extent possible, use a diversified approach toward weed management. Whenever possible, incorporate multiple weed-control practices such as mechanical cultivation, biological management practices, and crop rotation.
- Fields with difficult to control weeds should be rotated to crops that allow the use of herbicides with alternative mechanisms of action or different management practices.
- To the extent possible, do not allow weed escapes to produce seeds, roots or tubers. Manage weed seeds at harvest and post-harvest to prevent a buildup of the weed seed-bank.
- Prevent field-to-field and within-field movement of weed seed or vegetative propagules. Thoroughly clean plant residues from equipment before leaving fields.
- Prevent an influx of weeds into the field by managing field borders.
- Identify weeds present in the field through scouting and field history and understand their biology. The weed-control program should consider all of the weeds present.
- Difficult to control weeds may require sequential applications of herbicides with differing mechanisms of action.
- Apply this herbicide at the correct timing and rate needed to control the most difficult weed in the field.
- Use a broad-spectrum soil-applied herbicide with a mechanism of action that differs from this product as a foundation in a weed-control program. Do not use more than two applications of this or any other herbicide with the same mechanism of action within

a single growing season unless mixed with an herbicide with another mechanism of action with an overlapping spectrum for the difficult-to-control weeds.

- If resistance is suspected, treat weed escapes with an herbicide with a different MOA or use non-chemical methods to remove escapes.
- Monitor treated weed populations for loss of field efficacy.
- Scout field(s) before and after application.
- Report lack of performance to Rotam Agrochemical Co., Ltd. or their representative.

Indicators of possible herbicide resistance include: (1) failure to control a weed species normally controlled by the herbicide at the dose applied, especially if control is achieved on adjacent weeds; (2) a spreading patch of non-controlled plants of a particular weed species; (3) surviving plants mixed with controlled individuals of the same species.

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

PRODUCT INFORMATION

This product is for use on the following:

Alfalfa, Artichoke (Globe), Asparagus, Bean and Pea (dry shelled)¹, Bean and Pea (succulent)², Broccoli, Bushberry³, Cabbage, Caneberry⁴, Canola*, Carrot, Cauliflower (and other Head and Stem Brassica Vegetables)⁵, Celery, Clover (grown in Idaho, Oregon and Washington only), Conifers, Cotton, Cranberry, Cucumber, Eggplant (and other Fruiting Vegetables)⁶, Fallow Land (and other non-producing agricultural areas), Flax*, Field Corn⁷, Garden Beets, Garlic, Herbs⁸, Hops, Horseradish (and other Root Vegetables)⁸, Legume Vegetables (edible podded)⁹, Lettuce, Head and Leaf (and other leafy greens)¹⁰, Melons (including Cantaloupes and Watermelons)¹¹, Mint, Mustard Greens (and other leafy brassica greens)¹², Mustard Seed*, Non-Bearing Food Crops, Non-Crop or Planted Areas, Onions (dry bulb and green), Ornamentals, Peaches, Peanut (including perennial), Peppers (bell and non-bell), Potato, Radish, Rhubarb, (and other leafy Petioles)¹³, Safflower, Sesame, Shallots (dry bulbs and green), Squash (including Pumpkins), Soybeans, Strawberry, Sugar Beet, Sunflower, Sweet Potato, Tomato, Turnip Greens, and Yam (and other Tuberous and Corm Vegetables)¹⁴

* Not for use in California.

¹ Other Dry Shelled Bean and Pea crops approved for use with this product include: Bean (*Lupinus* spp.) grain, sweet, white and sweet; Bean (*Phaseolus* spp.), field, kidney, lima (dry), navy, pinto and tepary; Bean (*Vigna* spp.), adzuki, black-eyed pea, catjang, cowpea, crowder pea, moth bean, mung bean, rice bean, Southern pea, urd bean, broad (dry), chickpea (garbanzo), guar, lablab bean and lentil; Pea (*Pisum* spp.), field and pigeon.

² Other Succulent Bean and Pea crops approved for use with this product include: Bean (*Lupinus* spp.) grain, sweet, white and sweet; Bean (*Phaseolus* spp.), field, kidney, lima (dry), navy, pinto and tepary; Bean (*Vigna* spp.), adzuki, black-eyed pea, catjang, cowpea, crowder pea, moth bean, mung bean, rice bean, Southern pea, urd bean, broad (dry), chickpea (garbanzo), guar, lablab bean and lentil; Pea (*Pisum* spp.), field and pigeon.

³ Other bush berry crops approved for use with this product include: Aronia Berry, Blueberry (highbush), Black Currant, Buffalo Currant, Chilean Guava, Cranberry (highbush), Elderberry, European Barberry, Gooseberry, Honeysuckle (edible), Huckleberry (edible), Jostaberry, Juneberry (Saskatoon berry), Native Currant, Salal, Sea Buckthorn, Red Currant; cultivars, varieties and/or hybrids of these.

⁴ Other Caneberry crops approved for use with this product include: Blackberry, Loganberry, Raspberry (black and red), Wild Raspberry; cultivars, varieties and/or hybrids of these.

⁵ Other Head and Stem Brassica approved for use with this product include: Chinese broccoli, Brussels sprouts, Chinese (napa) cabbage, Chinese mustard, cavalo broccolo, and kohlrabi.

⁶ Other Fruiting Vegetables (except tomato) approved for use with this product include: eggplant, ground cherry, Pepino, peppers (all), and tomatillo.

⁷ For burndown of existing stand of Roundup Ready field corn or volunteer Roundup Ready field corn prior to replanting field corn.

⁸ Other Herb crops approved for use with this product: angelica, balm, basil, borage, burnet, chamomile, catnip, chervil, (dried), chive, Chinese chive, clary, coriander (leaf), costmary, cilantro (leaf), curry (leaf), dill (dillweed), horehound, hyssop, lavender, lovage (leaf), marigold, marjoram (*Origanum* spp.), nasturtium, parsley (dried), pennyroyal, rosemary, rue, sage, and savory, summer and winter.

⁹ Other Root Vegetables approved for use with this product include: burdock, edible; celeriac; chervil, turnip-rooted; chicory, ginseng; parsley, turnip-rooted; parsnip; radish, oriental; rutabaga; salsify; salsify, black; salsify, Spanish; skirret and turnip.

¹⁰ Other Edible Podded Legume Vegetable crops approved for use with this product: Bean (*Phaseolus* spp.), runner, snap and wax; Bean (*Vigna* spp.) asparagus, Chinese longbean, moth, yardlong, jackbean; Pea (*Pisum* spp.) dwarf, edible-pod, snow, sugar snap, pigeon, and sword bean.

¹¹ Other Leafy Greens crops approved for use with this product include: amaranth (Chinese spinach, leafy amaranth and tampala), arugula (roquette), chervil, chrysanthemum (edible-leaved and garland), corn salad, cress (garden, yellow rock and winter), dandelion, dock (sorrel), endive (escarole), lettuce (head and leaf), orach, parsley, purslane (garden and winter), radicchio (red chicory), spinach (New Zealand and Vine (Indian and Malabar)).

¹² Other Cucurbit crops approved for use with this product include: chayote (fruit), Chinese wax gourd, citron melon, edible gourd, gherkin and muskmelons (all, including honeydew melon).

¹³ Other Leafy Brassica Greens approved for use with this product include: broccoli raab, Chinese (bok choy) cabbage, collards, kale, mizuna, mustard greens, mustard spinach, rape greens, and turnip greens.

¹⁴ Other Leaf Petiole crops approved for use with this product include: cardoon, celtuce, Chinese celery, Florence fennel, and Swiss chard.

¹⁵ Other Tuberous and Corm Vegetables approved for use with this product include: arracacha, arrowroot, Chinese artichoke, Jerusalem artichoke, edible canna, bitter and sweet cassava, chayote (root), chufa, dasheen (taro), ginger, leren, tanier, tumeric, and bean yam.

This product is a selective post-emergence herbicide for control of annual and perennial grasses. CLETHODIM 2E does not control sedges or broadleaf weeds and is not recommended for use on vegetable crops being grown for seed production unless specific instructions are included in this labeling.

Repeated use of CLETHODIM 2E (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.

A resistant biotype may be present if poor performance occurs and cannot be attributed to adverse weather or application conditions. This will most likely occur in fields where other control strategies such as crop rotation, mechanical removal, and other classes of herbicides are not used from year to year.

Do not allow CLETHODIM 2E to contact desirable grass crops such as 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.

SYMPTOMS OF CONTROL

The 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. Depending on grass species treated and environmental conditions, symptoms will generally be observed in 7 to 14 days after application.

APPLICATION INFORMATION

Timing

Apply CLETHODIM 2E post-emergence to actively growing grasses according to the rate table directions. Do not apply to grass plants under stress from insufficient moisture or cold temperatures, or to grass plants exceeding recommended growth stages as unsatisfactory control may result.

When irrigation is used to supplement limited rainfall in arid regions, CLETHODIM 2E should be applied as soon as possible, after irrigation (within 7 days). A second application of this product will generally provide more effective control of perennial grass weed than a single application in arid regions. Apply a second application to actively growing grass 2 to 3 weeks after emergence of new growth.

Cultivation of treated grasses 7 days prior to or within 7 days after application of this product could reduce weed control. DO NOT APPLY if rainfall is expected within one hour as control may be reduced.

ADDITION OF ADJUVANT OR CROP OIL CONCENTRATE

CROP	ADJUVANT RECOMMENDATIONS
Alfalfa, Cotton, Dry Shelled Bean & Pea, Edible Podded Legume Vegetables, Peanuts (including perennial), Potato, Soybean, Succulent Bean & Pea, Sugar Beet, and Sunflower	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. 1 to 2 qts./A liquid fertilizer (10-34-0, 28%N, or 32%N) or an equivalent amount of spray grade ammonium sulfate (AMS) (2.5 - 4.0 lbs./A) can be added to CLETHODIM 2E applications in addition to the recommended rate of crop oil concentrate. The addition of AMS has shown improved grass control for difficult to control species including: quackgrass, red rice, rhizome Johnsongrass, volunteer cereals, volunteer corn, and wild oats.
Artichoke (Globe), Asparagus, Bushberry, Caneberry, Canola, Carrot, Clover, Cranberry, Cucurbits, Flax, Fruiting Vegetables (except Tomato), Garden Beet, Garlic, Head & Stem Brassica Vegetables, Herbs, Hops, Leaf Petioles, Leafy Brassica Greens, Leafy Greens, Mint, Mustard Seed, Onion (Dry Bulb and Green), Peaches, Root Vegetables, Safflower, Sesame, Shallots (Dry Bulb and Green), Strawberry, Sweet Potato (Yam and Other Tuberous and Corm Vegetables except Potato), and Tomato	Unless tank mix instructions indicate otherwise, always use a crop oil concentrate at 1% v/v in the finished spray volume. The addition of a liquid fertilizer is not recommended for these crops.
Ornamental Plants and Non-Bearing Food Crops	Add a nonionic surfactant containing at least 80% active ingredient at the rate of 1 pint per 50 gallons (0.25% v/v). The use of a crop oil concentrate is not recommended as it could injure flowers and foliage.

Conifer Trees, Fallow Land (and other non-producing agricultural areas), 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.
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*Crop oil concentrates that are acceptable would be those that contain a minimum of 80% oil 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.

GROUND APPLICATION

Use a minimum of 5 gallons and a maximum of 40 gallons of spray solution per acre. Use of sufficient spray volumes and pressure is essential to ensure complete coverage. Under the following conditions a minimum of 10 gallons per acre is required: 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 gallons per acre under these conditions can result in poor coverage and reduced grass control requiring repeat applications. Spray pressures should reflect a minimum of 30 PSI and a maximum of 60 PSI at the nozzle. Do not use flood nozzles.

Applications to onions (dry bulbs and green), garlic, and shallots (dry bulbs and green) should be made in a minimum of 20 gallons of spray solution per acre.

AIR APPLICATION

Use a minimum of 3 gallons of spray solution per acre. As grass or crop foliage becomes dense, increase spray volume up to 10 gallons. For onions (dry bulbs and green); garlic, or shallots (dry bulbs and green): When applying by air do not exceed 8 fl. oz./A in a single application. In California, air applications to onions, garlic or shallots should be made in a minimum of 20 gallons of spray solution per acre.

NOTE: Crop injury may occur when CLETHODIM 2E is applied to onions, garlic, or shallots with aerial equipment.

Spot Treatment

Mix 1/4% to 1/2% (0.33 oz. to 0.65 oz. per gal.) product when using hand sprayers or high volume sprayers utilizing hand guns. While not allowing runoff of spray solution, apply to wet vegetation. For uses requiring crop oil concentrate, include crop oil concentrate at 1% (1.3 oz. per gal.) by volume. For uses requiring nonionic surfactant, include nonionic surfactant at 1/4% (0.33 oz. per gal.) by volume.

NOTE: If CLETHODIM 2E is applied as a spot treatment, care should be taken to not exceed the maximum rate allowed on a “per acre” basis or crop injury could occur.

CHEMIGATION - ONIONS (Dry Bulbs and Green) AND GARLIC

SPRINKLER IRRIGATION APPLICATION

DO NOT APPLY THIS PRODUCT BY CHEMIGATION IN THE STATES OF IDAHO, MONTANA, OREGON AND WASHINGTON.

Apply CLETHODIM 2E at the high rate recommended for annual grasses (16 fl. oz. per acre) 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.

Make application of CLETHODIM 2E 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 recommended quantities of irrigation water per acre may result in decreased product performance by removing the chemical from the zone of effectiveness. Use a metering device to inject the CLETHODIM 2E 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.

It is not recommended that CLETHODIM 2E be applied 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.

Use Precautions

1. Apply this product only through sprinkler including center pivot, lateral move, end tow, side (wheel) roll, traveler, big gun, solid set, or hand move system(s). Do not apply this product through any other type of irrigation system.
2. Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from non-uniform distribution of treated water.

3. If you have questions about calibration, you should contact State Extension Service specialists, equipment manufacturers or other experts.
4. Do not connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system unless the pesticide label-prescribed safety devices for public water systems are in place.
5. A person knowledgeable of the chemigation system and responsible for its operation or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.
6. 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 back flow.
7. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
8. 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.
9. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
10. 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.
11. Systems must use a metering pump, such as 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.
12. Do not apply when wind speed favors drift beyond the area intended for treatment.

RESTRICTIONS AND LIMITATIONS

- Do not apply if rain is expected within 1 hour of application as unsatisfactory control may occur.
- Do not apply a post-emergence broadleaf herbicide within one day following application of CLETHODIM 2E or reduced grass control may result.
- CLETHODIM 2E is not recommended for use on vegetable crops being grown for seed production unless specific use directions are provided.
- For maximum single application rates, see the crop specific restriction in the "crop specific rates, restrictions, and limitations for Clethodim 2E" table below.
- For maximum annual application rate, see the crop specific restriction in the "crop specific rates, restrictions, and limitations for Clethodim 2E" table below.
- For maximum number of applications, see the crop specific restriction in the "crop specific rates, restrictions, and limitations for Clethodim 2E" table below.
- Do not apply under conditions of stress. Applying CLETHODIM 2E 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 prior pesticide applications. Grasses under these kinds of stressful conditions will not absorb and translocate CLETHODIM 2E effectively, and will be less susceptible to herbicide activity.
- Best 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, such as 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, no fewer than two CLETHODIM 2E applications per season per year are recommended at the appropriate weed-growth stage rate under continuous no-till conditions.
- Grass crops such as corn, rice, sorghum, small grains, or turf, etc. are highly sensitive to CLETHODIM 2E.
- While all vegetable crops on this label have been tested and are tolerant to CLETHODIM 2E, not all specialty varieties of these crops have been tested. It is advised that, before applying CLETHODIM 2E to specialty varieties of vegetable crops on this label, crop tolerance be investigated first using a small section of the field. It is possible that injury symptoms can occur. Symptoms may appear as leaf speckling or stunting.
- 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.
- Tank mixes of CLETHODIM 2E and broadleaf herbicides may result in reduced grass control. If grass regrowth occurs, an additional application of CLETHODIM 2E may be necessary.
- Aerial applications for all tree fruits and tree nuts uses are prohibited.

Do not apply under conditions involving possible drift to food, forage or other plantings that might be damaged or the crops thereof rendered unfit for sale, use or consumption.

CROP SPECIFIC RATES, RESTRICTIONS AND LIMITATIONS FOR CLETHODIM 2E				
CROPS ⁽¹⁾	MINIMUM TIME FROM APPLICATION TO HARVEST (PHI)	USE RATES PER ACRE	CROP OIL CONCENTRATE RATES PER ACRE ⁽²⁾	SPECIAL USE INSTRUCTIONS
Alfalfa including: Sainfoin Holy Clover Birdsfoot trefoil ⁽³⁾	15 days before grazing, feeding or harvesting (cutting) for	6 - 16 fl. oz. ⁽⁴⁾	1 qt. by ground or 1% v/v, but not less after than 1 pt./A, by air. ⁽⁵⁾	Do not plant rotational crops until 30 days after application of CLETHODIM 2E. ⁽⁵⁾

CROP SPECIFIC RATES, RESTRICTIONS AND LIMITATIONS FOR CLETHODIM 2E				
CROPS ⁽¹⁾	MINIMUM TIME FROM APPLICATION TO HARVEST (PHI)	USE RATES PER ACRE	CROP OIL CONCENTRATE RATES PER ACRE ⁽²⁾	SPECIAL USE INSTRUCTIONS
	forage or hay.			Adding AMS has shown improved grass control for difficult to control species including: quackgrass, red rice, rhizome Johnsongrass, volunteer cereals, volunteer corn, and wild oats. For repeat applications, make on a minimum of a 14-day interval. Restrictions: - Do not use more than 16 fl. oz./A (0.25 lb. a.i./A) per application. - Do not make application of more than 32 fl. oz./A (0.5 lb. a.i./A) per year. - Do not make more than 4 applications at the lowest rate, 6-8 fl. oz./A (0.094-0.125 a.i./A), or 2 applications at the highest rate, 16 oz. fl./A (0.25 lb. a.i./A) per year. - Do not apply CLETHODIM 2E 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.
Artichoke (Globe)	5 days	6 - 8 fl. oz.	1% v/v in the finished spray volume.	For repeat applications make on a minimum of a 14-day interval. Restrictions: - Do not apply more than 8 fl. oz./A (0.125 lb. a.i./A) in a single application. - Do not make more than 4 applications per acre per year. - Do not apply more than 32 fl. oz./A (0.5 lb. a.i./A) per year.
Asparagus	1 day	6 - 8 fl. oz.	1% v/v in the finished spray volume.	A minimum 14-day interval required for repeat applications. Restrictions: - Do not apply more than 8 fl. oz./A (0.125 lb. a.i./A) in a single application. - Do not apply more than 32 fl. oz./A (0.5 lb. a.i./A) per year. - Do not make more than 4 applications per year.
Beans, Dry Shelled including: Bean (<i>Lupinus</i> spp.) Grain Sweet White White Sweet Bean (<i>Phaseolus</i> spp.) Field Kidney Lima (dry) Navy	30 days	6 - 16 fl. oz.	1 qt. by ground or 1% v/v, but not less than 1 pt./A, by air. ⁽⁵⁾	A minimum 14-day interval required for repeat applications. For reduced rate directions for the control of small annual grasses, refer to the appropriate Table. Adding AMS has shown improved grass control for difficult to control species including: quackgrass, red rice, rhizome Johnsongrass, volunteer cereals, volunteer corn, and wild oats.

CROP SPECIFIC RATES, RESTRICTIONS AND LIMITATIONS FOR CLETHODIM 2E				
CROPS ⁽¹⁾	MINIMUM TIME FROM APPLICATION TO HARVEST (PHI)	USE RATES PER ACRE	CROP OIL CONCENTRATE RATES PER ACRE ⁽²⁾	SPECIAL USE INSTRUCTIONS
Pinto Tepary Bean (<i>Vigna</i> spp.) Adzuki Bean Black-eyed Pea Catjang Cowpea Crowder Pea Moth Bean Mung Bean Rice Bean Southern Pea Urd Bean Broad (dry) Chickpea (garbanzo) Guar Lablab Bean Lentil				Restrictions: - Do not apply more than 16 fl. oz./A (0.25 lb. a.i./A) in single application. - Do not make application of more than 32 fl. oz./A (0.5 lb. a.i./A) per year. - Do not make more than 4 applications at the lowest rate, 6-8 fl. oz./A (0.094-0.125 a.i./A), or 2 applications at the highest rate, 16 oz. fl./A (0.25 lb. a.i./A) per year. - For Reduced Rate Control for Small Annual Grasses: Do not make more than 8 applications at 4 fl. oz./A (0.0625 lb. a.i./A) per year.
Bean, Succulent including: Bean (<i>Phaseolus</i> spp.) Broad Bean (succulent) Lima (dry) Bean (<i>Vigna</i> spp.) Black-eyed Pea Cowpea Southern Pea	21 days	6 - 8 fl. oz.	1 qt. by ground or 1% v/v, but not less than 1 pt./A, by air. ⁽⁵⁾	For reduced rate directions for the control of small annual grasses, refer to the appropriate Table. Adding AMS has shown improved grass control for difficult to control species including: quackgrass, red rice, rhizome Johnsongrass, volunteer cereals, volunteer corn, and wild oats. Restrictions: - Do not apply more than 8 fl. oz./A (0.125 lb. a.i./A) in a single application. - Do not apply more than one (1) application per acre per year. - Do not apply more than 8 fl. oz./A (0.125 lb. a.i./A) per year. - For Reduced Rate Control for Small Annual Grasses: Do not make more than 2 applications at 4 fl. oz./A (0.0625 lb. a.i./A) per year.
Beet, Garden	30 days	6 - 8 fl. oz.	1% v/v in the finished spray volume.	A minimum 14-day interval required for repeat applications. Restrictions: - Do not apply more than 8 fl. oz./A (0.125 lb. a.i./A) in a single application. - Do not make more than 4 applications per acre per year. - Do not make application of more than 32 fl. oz./A (0.50 lb. a.i./A) per year.
Brassica Vegetables*, Head and Stem including: Broccoli Cabbage	30 days	6 - 8 fl. oz.	1% v/v in the finished spray volume.	For repeat applications, observe a minimum 14-day interval between applications. Restrictions:

CROP SPECIFIC RATES, RESTRICTIONS AND LIMITATIONS FOR CLETHODIM 2E				
CROPS ⁽¹⁾	MINIMUM TIME FROM APPLICATION TO HARVEST (PHI)	USE RATES PER ACRE	CROP OIL CONCENTRATE RATES PER ACRE ⁽²⁾	SPECIAL USE INSTRUCTIONS
Cauliflower Brussels sprouts *Not for use in California unless accompanied by a supplemental label.				- Do not apply more than 8 fl. oz. (0.125 lb. a.i./A) per acre in a single application. - Do not make more than 4 applications per acre per year. - Do not make application of more than 32 fl. oz./A (0.50 lb. a.i./A) per year.
Bushberry, including: 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 Native currant Salai Sea Buckthorn Cultivars, varieties and/or hybrids of these.	14 days	6 - 8 fl. oz.	1% v/v in the finished spray volume.	For repeat applications make a minimum of a 14-day interval. Apply at the base of the plant where grassy weeds are growing near the ground. Restrictions: - Do not apply more than 8 fl. oz./A (0.125 lb. a.i./A) in a single application. - Do not make more than 4 applications per acre per year. - Do not apply more than 32 fl. oz. (0.5 lb. a.i./A) per year. - Do not apply to low growing berries. - Do not apply to Bushberry grown for root stock.
Caneberry, including: Blackberry Loganberry Raspberry, black Raspberry, red Raspberry, wild Cultivars, varieties and/or hybrids of these.	7 days	6 - 8 fl. oz.	1% v/v in the finished spray volume.	For repeat applications make on a minimum of a 14-day interval. Apply at the base of the plant where grassy weeds are growing near the ground. Restrictions: - Do not apply more than 8 fl. oz./A (0.125 lb. a.i./A) in a single application. - Do not make more than 4 applications per acre per year. - Do not apply more than 32 fl. oz./A (0.5 lb. a.i./A) per year. - Do not apply to low growing berries. - Do not apply to Caneberry grown for root stock.
Canola* *Not for use in California unless accompanied by a supplemental label.	70 days	4 - 6 fl. oz.	1% v/v in the finished spray volume.	Restrictions: - Do not apply after crop has begun bolting. Crop injury may occur when this product is applied during the bloom period. - Do not apply more than 6 fl. oz./A (0.094 lb. a.i./A) in a single application. - Do not exceed 6 fl. oz./A (0.094 lb. a.i./A) in a year.

CROP SPECIFIC RATES, RESTRICTIONS AND LIMITATIONS FOR CLETHODIM 2E				
CROPS ⁽¹⁾	MINIMUM TIME FROM APPLICATION TO HARVEST (PHI)	USE RATES PER ACRE	CROP OIL CONCENTRATE RATES PER ACRE ⁽²⁾	SPECIAL USE INSTRUCTIONS
				- For Annual and Perennial Grasses: Do not make more than 1 application at 6 fl. oz./A (0.094 lb. a.i./A) per year. - For Reduced Rate Control for Small Annual Grasses: Do not make more than 1 application at 4 fl. oz./A (0.0625 lb. a.i./A) per year.
Carrot	30 days	6 - 8 fl. oz.	1% v/v in the finished spray volume.	A minimum 14-day interval required for repeat applications. Restrictions: - Do not apply more than 8 fl. oz./A (0.125 lb. a.i./A) in a single application. - Do not make more than 4 applications per acre per year. - Do not apply more than 32 fl. oz. (0.5 lb. a.i./A) per year.
Clover	15 days before grazing, feeding, or harvesting (cutting) for forage or hay.	6 - 16 fl. oz.	1% v/v in the finished spray volume.	For use on clover grown in the states of Idaho, Oregon and Washington only. A minimum 14-day interval required for repeat applications. Restrictions: - Do not exceed 16 fl. oz./A (0.25 lb. a.i./A) per application. - Do not make more than 2 applications at the lowest rate, 6-8 fl. oz./A (0.094-0.125 a.i./A), or 1 application at the highest rate, 16 fl. oz./A (0.25 lb. a.i./A) per year. - Do not make application of more than 16 fl. oz./A (0.25 lb. a.i./A) per year.
Corn, Field For burndown of existing stand of Roundup Ready field corn or volunteer Roundup Ready field corn prior to replanting field corn. See Directions for Use in Roundup Ready Field Corn (Burndown) table.	90 days	3 fl. oz.	Do not use COC or MSO with CLETHODIM 2E in this use pattern.	To control the existing stand, replant no sooner than 6 days after application. Restrictions: - Do not apply more than 3 fl. oz./A (0.047 lb. a.i./A) per application. - Do not make more than 1 application per year. - Do not apply more than 3 fl. oz./A per year (0.047 lb. a.i./A).
Cotton	60 days	6 - 16 fl. oz.	1 qt. by ground or 1% v/v, but not less than 1 pt./A, by air. ⁽⁵⁾	A minimum 14-day interval required for repeat applications. Adding AMS has shown improved grass control for difficult to control species including; quackgrass, red rice, rhizome Johnsongrass, volunteer cereals, volunteer corn, and wild oats. Restrictions: Do not graze treated fields or feed treated forage or hay to livestock.

CROP SPECIFIC RATES, RESTRICTIONS AND LIMITATIONS FOR CLETHODIM 2E				
CROPS ⁽¹⁾	MINIMUM TIME FROM APPLICATION TO HARVEST (PHI)	USE RATES PER ACRE	CROP OIL CONCENTRATE RATES PER ACRE ⁽²⁾	SPECIAL USE INSTRUCTIONS
				- Do not use more than 16 fl. oz./A (0.25 lb. a.i./A) per application. - Do not make more than 4 applications at the lowest rate, 6-8 fl. oz./A (0.094-0.125 a.i./A), or 2 applications at the highest rate, 16 fl. oz./A (0.25 lb. a.i./A) per year. - Do not make application of more than 32 fl. oz./A (0.5 lb. a.i./A) per acre per year.
Cranberry	30 days	6 - 8 fl. oz.	1% v/v in the finished spray volume.	A minimum 14-day interval required for repeat applications. Restrictions: - Do not apply more than 8 fl. oz./A (0.125 lb. a.i./A) in a single application. - Do not make more than 4 applications per acre per year. - Do not make application of more than 32 fl. oz./A (0.5 lb. a.i./A) per year. - Do not apply between the “hook” stage and full fruit set.
Cucurbits, including: Chayote (fruit) Chinese Wax Gourd Citron Melon Cucumber Gherkin Gourd, edible Muskmelons (all) including: Cantaloupes Honeydew Melon Pumpkins Squash (all) Watermelon	14 days	6 - 8 fl. oz.	1% v/v in the finished spray volume.	A minimum 14-day interval required for repeat applications. Restrictions: - Do not apply more than 8 fl. oz./A (0.125 lb. a.i./A) in a single application. - Do not apply more 32 fl. oz./A (<u>0.5 lb. a.i./A</u>) per year. - Do not make more than 4 applications per year.
Fallow Land Conifer Trees (and other non-producing agricultural areas) Non-Crop or Non-Planted areas	N/A	6 - 16 fl. oz.	1% v/v (but not less than 1 pt./A) in the finished spray volume using a crop oil concentrate containing at least 15% emulsifier.	A minimum 14-day interval required for repeat applications. Restrictions: - Do not use more than 16 fl. oz./A (0.25 lb. a.i./A) per application. - Do not make more than 4 applications at the lowest rate, 6-8 fl. oz./A (0.094-0.125 a.i./A), or 2 applications at the highest rate, 16 fl. oz./A (0.25 lb. a.i./A) per year. - Do not make application of more than 32 fl. oz./A (0.5 lb. a.i./A) per year. - Do not plant any crop for 30 days after application unless clethodim is registered for use on that crop.
Flax*	60 days	6 - 8 fl. oz.	1% v/v in the finished spray volume.	A minimum 14-day interval required for repeat applications.

CROP SPECIFIC RATES, RESTRICTIONS AND LIMITATIONS FOR CLETHODIM 2E				
CROPS ⁽¹⁾	MINIMUM TIME FROM APPLICATION TO HARVEST (PHI)	USE RATES PER ACRE	CROP OIL CONCENTRATE RATES PER ACRE ⁽²⁾	SPECIAL USE INSTRUCTIONS
*Not for use in California unless accompanied by a supplemental label.				Apply prior to bloom. Crop injury may occur when CLETHODIM 2E is applied during the bloom period. Restrictions: - Do not exceed 16 fl. oz. (0.25 lb. a.i./A) of CLETHODIM 2E per acre per year. - Do not apply more than 8 fl. oz./A (0.125 lb. a.i./A) in a single application.
Fruiting Vegetables (except Tomato) including: Eggplant Groundcherry Pepino Peppers (all) Tomatillo	20 days	6 - 8 fl. oz.	1% v/v in the finished spray volume.	A minimum 14-day interval required for repeat applications. Restrictions: - Do not apply more than 8 fl. oz./A (0.125 lb. a.i./A) in a single application. - Do not make more than 4 applications per acre per year. - Do not make application of more than 32 fl. oz./A (0.5 lb. a.i./A) per year.
Herbs including: Angelica Balm Basil Borage Burnet Chamomile Catnip Chervil (dried) Chive Chinese chive Clary Coriander (leaf) Costmary Cilantro (leaf) Curry (leaf) Dill (dillweed) Horehound Hyssop Lavender Lovage (leaf) Marigold Marjoram (<i>Origanum</i> spp.) Nasturtium Parsley (dried) Pennyroyal Rosemary Rue Sage Savory, Summer and Winter	14 days	6 - 8 fl. oz.	1% v/v in the finished spray volume.	This product has not been tested on all herbs, and herb varieties. It is the responsibility of the user to test this product on a small portion of the crop to be treated before treating the entire field. Crop tolerance should be verified to this product on a small area of the herb crop at the desired rate and with the same crop oil concentrate that will be used on the herb field. If no crop response is evident seven (7) days after treatment, this product may be used on the entire field at the same rate tested and with the same crop oil used in the tolerance test. A minimum 14-day interval required for repeat applications. Restrictions: - Do not apply more than 8 fl. oz./A (0.125 lb. a.i./A) in a single application. - Do not make more than 4 applications per acre per year. - Do not make application of more than 32 fl. oz./A (0.5 lb. a.i./A) per year.
Hops	21 days	6 - 8 fl. oz.	1% v/v in the finished spray volume.	A minimum 14-day interval required for repeat applications. Restrictions:

CROP SPECIFIC RATES, RESTRICTIONS AND LIMITATIONS FOR CLETHODIM 2E				
CROPS ⁽¹⁾	MINIMUM TIME FROM APPLICATION TO HARVEST (PHI)	USE RATES PER ACRE	CROP OIL CONCENTRATE RATES PER ACRE ⁽²⁾	SPECIAL USE INSTRUCTIONS
				- Do not apply more than 8 fl. oz./A (0.125 lb. a.i./A) in a single application. - Do not make more than 4 applications per acre per year. - Do not make application of more than 32 fl. oz./A (0.5 lb. a.i./A) per year.
Leaf Petioles including: Celery Cardoon Celtuce Chinese celery Florence fennel Rhubarb Swiss chard	30 days	6 - 8 fl. oz.	1% v/v in the finished spray volume.	A minimum 14-day interval required for repeat applications. Restrictions: - Do not apply more than 8 fl. oz./A (0.125 lb. a.i./A) in a single application. - Do not make more than 4 applications per acre per year. - Do not make application of more than 32 fl. oz./A (0.5 lb. a.i./A) per year.
Leafy Brassica Greens, including: Broccoli Raab Cabbage, Chinese (Bok Choy) Collards Kale Mizuna Mustard Greens Mustard Spinach Rape Greens Turnip Greens	14 days	6 - 8 fl. oz.	1% v/v in the finished spray volume.	A minimum 14-day interval required for repeat applications. Restrictions: - Do not apply more than 8 fl. oz./A (0.125 lb. a.i./A) in a single application. - Do not make application of more than 32 fl. oz./A (0.5 lb. a.i./A) per year. - Do not make more than 4 applications per year.
Leafy Greens including: Amaranth Chinese Spinach Leafy Amaranth Tampala Arugula (roquetti) Chervil Chrysanthemum, edible-leaved Corn Salad Cress Garden Yellow rock Winter Dandelion Dock (sorrel) Endive (escarole) Lettuce (head and leaf) Orach Parsley Purslane Garden Winter Radicchio (red chicory) Spinach	14 days	6 - 8 fl. oz.	1% v/v in the finished spray volume.	A minimum 14-day interval required for repeat applications. Restrictions: - Do not apply more than 8 fl. oz./A (0.125 lb. a.i./A) in a single application. - Do not make more than 4 applications per acre per year. - Do not make application of more than 32 fl. oz./A (0.5 lb. a.i./A) per year.

CROP SPECIFIC RATES, RESTRICTIONS AND LIMITATIONS FOR CLETHODIM 2E				
CROPS ⁽¹⁾	MINIMUM TIME FROM APPLICATION TO HARVEST (PHI)	USE RATES PER ACRE	CROP OIL CONCENTRATE RATES PER ACRE ⁽²⁾	SPECIAL USE INSTRUCTIONS
New Zealand Vine (Indian and Malabar)				
Legume Vegetables, Edible Podded including: Bean (<i>Phaseolus</i> spp.) Runner Snap Wax Bean (<i>Vigna</i> spp.) Asparagus Chinese Longbean Moth Yardlong Jackbean Pea (<i>Pisum</i> spp.) Dwarf Edible-pod Snow Sugar Snap Pigeon Sword Bean	21 days	6 - 8 fl. oz.	1 qt. by ground or 1% v/v (but not less than 1 pt./A) by air. ⁽⁵⁾	For peas, apply before bloom, but no later than 21 days before harvest. For reduced rate directions for the control of small annual grasses, refer to the appropriate Table. Adding AMS has shown improved grass control for difficult to control species including; quackgrass, red rice, rhizome Johnsongrass, volunteer cereals, volunteer corn, and wild oats. Restrictions: - Do not apply more than 8 fl. oz./A (0.125 lb. a.i./A) in a single application. - Do not apply more than one (1) application per acre per year. - Do not apply more than 8 fl. oz./A (0.125 lb. a.i./A) per year. - For Reduced Rate Control for Small Annual Grasses: Do not make more than 2 applications at 4 fl. oz./A (0.0625 lb. a.i./A) per year.
Mint	21 days	6 - 16 fl. oz. ⁽⁴⁾	1 qt. by ground or 1% v/v, but not less than 1 pt./A, by air.	A minimum 14-day interval required for repeat applications. Restrictions: - Do not apply more than 16 fl. oz./A (0.25 lb. a.i./A) in a single application. - Do not make more than 4 applications at the lowest rate, 6-8 fl. oz./A (0.094-0.125 a.i./A), or 2 applications at the highest rate, 16 fl. oz./A (0.25 lb. a.i./A) per year. - Do not make application of more than 32 fl. oz./A (0.5 lb. a.i./A) per year.
Mustard Seed* *Not for use in California unless accompanied by a supplemental label.	75 days	4 - 6 fl. oz.	1% v/v in the finished spray volume.	Restrictions: - Do not make more than 2 applications per acre per year. - Do not apply more than 6 fl. oz./A (0.094 lb. a.i./A) in a single application. - Do not apply after crop has begun bolting. Crop injury may occur when CLETHODIM 2E is applied during the bloom period. - Do not exceed 16 fl. oz./A (0.25 lb. a.i./A) of CLETHODIM 2E per acre in a year. - For Reduced Rate Control for Small Annual Grasses: Do not make more than 3<u>4</u> applications at the 4 fl. oz./A (0.0625 lb. a.i./A) per year.

CROP SPECIFIC RATES, RESTRICTIONS AND LIMITATIONS FOR CLETHODIM 2E				
CROPS ⁽¹⁾	MINIMUM TIME FROM APPLICATION TO HARVEST (PHI)	USE RATES PER ACRE	CROP OIL CONCENTRATE RATES PER ACRE ⁽²⁾	SPECIAL USE INSTRUCTIONS
Onions (Dry Bulbs Only) Garlic Shallots (Dry Bulbs Only)	45 days	6 - 16 fl. oz.	1% v/v in the finished spray volume.	A minimum 14-day interval required for repeat applications. Minimum of 20 gals./A spray volume by ground in entire U.S. Minimum of 20 gals./A spray volume by air in California. States Other than California: Application by air to onions, garlic or shallots should be made in a minimum of 10 gals./A. Restrictions: - Do not use more than 16 fl. oz./A (0.125 lb. a.i./A) per application. - Do not make more than 2 applications per acre per year. - Do not make application of more than 32 fl. oz./A (0.5 lb. a.i./A) per year. - When applying by air, do not exceed 8 fl. oz./A per application (0.125 lb. a.i./A) and 16 fl. oz./A (0.25 lb. a.i./A) per year. - If CLETHODIM 2E 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 CLETHODIM 2E to garlic or onion until the crop has at least two full leaves. Use a 14-day spray interval between the application of CLETHODIM 2E and liquid nitrogen or other herbicide applications. Injury to crop may occur when shorter intervals are observed. - In California, for air applications to onion, do not exceed 2 applications per year. For Garlic or Shallot: - When applying by ground, do not exceed 8 fl. oz./A (0.125 lb. a.i./A) per application or 16 fl. oz./A (0.25 lb. a.i./A) per year. - Do not exceed 2 applications per year.
Onions, Green, including: Leeks Scallions or Spring Onions Japanese Bunching Onions Green Shallots Green Eschalots	14 days	6 - 8 fl. oz.	1% v/v in the finished spray volume.	A minimum 14-day interval required for repeat applications. Restrictions: - Do not apply more than 8 fl. oz./A (0.125 lb. a.i./A) in a single application. - Do not make more than 4 applications per acre per year.

CROP SPECIFIC RATES, RESTRICTIONS AND LIMITATIONS FOR CLETHODIM 2E				
CROPS ⁽¹⁾	MINIMUM TIME FROM APPLICATION TO HARVEST (PHI)	USE RATES PER ACRE	CROP OIL CONCENTRATE RATES PER ACRE ⁽²⁾	SPECIAL USE INSTRUCTIONS
				- Do not make application of more than 32 fl. oz./A (0.5 lb. a.i./A) per year. - For air applications to onions, do not exceed 8 fl. oz./A (0.125 lb. a.i./A) per application. - In California for air applications to onion, do not exceed 2 applications per year. - If CLETHODIM 2E 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 CLETHODIM 2E to onion or garlic until the crop has at least two full leaves. Use a 14-day spray interval between the application of CLETHODIM 2E and liquid nitrogen or other herbicide applications. Injury to crop may occur when shorter intervals are observed.
Ornamentals	N/A	6 - 16 fl. oz.	Use of crop oil concentrate is not recommended as injury to flower and foliage may occur. See Special Use Instructions.	A minimum 14-day interval required for repeat applications. Add a nonionic surfactant containing at least 80% active ingredient at the rate of 1 pt. per 50 gallons (0.25% v/v). Sugar Maples cannot be tapped for syrup within one year of application. Restrictions: - For Ornamentals: Do not use more than 16 fl. oz./A (0.25 lb. a.i./A) in a single application. - For Non-Bearing Food Crops: Do not use more than 8 fl. oz./A (0.125 lb. a.i./A) in a single application. - Do not make application of more than 32 fl. oz./A (0.5 lb. a.i./A) per year. - Do not apply more than 4 applications at the lowest rate, 6-8 fl. oz./A (0.094-0.125 a.i./A), or 2 applications at the highest rate, 16 fl. oz. (0.25 lb. a.i./A) per year. - If applying as a spot treatment to non-bearing food crops, Do not exceed the maximum rate allowed on a “per acre” basis.
Non-Bearing Food Crops	N/A	6 - 8 fl. oz.		
Pea, Dry Shelled including: Pea (<i>Pisum</i> spp.) Field Pigeon	30 days	6 - 8 fl. oz.	1 qt. by ground or 1% v/v, but not less than 1 pt./A, by air. ⁽⁵⁾	Apply before bloom, but not later than 30 days prior to harvest. Applications of CLETHODIM 26.4% EC to peas during the bloom period could result in severe crop injury, including loss of yield and delayed maturity.

CROP SPECIFIC RATES, RESTRICTIONS AND LIMITATIONS FOR CLETHODIM 2E				
CROPS ⁽¹⁾	MINIMUM TIME FROM APPLICATION TO HARVEST (PHI)	USE RATES PER ACRE	CROP OIL CONCENTRATE RATES PER ACRE ⁽²⁾	SPECIAL USE INSTRUCTIONS
				For reduced rate directions for the control of small annual grasses, refer to the appropriate Table. Adding AMS has shown improved grass control for difficult to control species including; quackgrass, red rice, rhizome Johnsongrass, volunteer cereals, volunteer corn, and wild oats. Restrictions: - Do not apply more than 8 fl. oz./A (0.125 lb. a.i./A) in a single application. - Do not apply more than one (1) application per acre per year. - Do not apply more than 8 fl. oz./A (0.125 lb. a.i./A) per year. - For Reduced Rate Control for Small Annual Grasses: Do not make more than 2 applications at 4 fl. oz./A (0.0625 lb. a.i./A) per year.
Pea, Succulent including: Pea (<i>Pisum</i> spp.) English Pea Garden Pea Green Pea Pigeon Pea	21 days	6 - 8 fl. oz.	1 qt. by ground or 1% v/v, but not less than 1 pt./A, by air. ⁽⁵⁾	Apply before bloom, but not later than 21 days prior to harvest. Applications of CLETHODIM 26.4% EC to peas during the bloom period could result in severe crop injury, including loss of yield and delayed maturity. For reduced rate directions for the control of small annual grasses, refer to the appropriate Table. Adding AMS has shown improved grass control for difficult to control species including; quackgrass, red rice, rhizome Johnsongrass, volunteer cereals, volunteer corn, and wild oats. Restrictions: - Do not apply more than 8 fl. oz./A (0.125 lb. a.i./A) in a single application. - Do not apply more than one (1) application per acre per year. - Do not apply more than 8 fl. oz./A (0.125 lb. a.i./A) per year. - For Reduced Rate Control for Small Annual Grasses: Do not make more than 2 applications at 4 fl. oz./A (0.0625 lb. a.i./A) per year.
Peach	14 days	6 - 8 fl. oz.	1% v/v in the finished volume.	For repeat applications, make on a minimum of a 14-day interval. Restrictions: Do not apply to Peach grown for root stock.

CROP SPECIFIC RATES, RESTRICTIONS AND LIMITATIONS FOR CLETHODIM 2E				
CROPS ⁽¹⁾	MINIMUM TIME FROM APPLICATION TO HARVEST (PHI)	USE RATES PER ACRE	CROP OIL CONCENTRATE RATES PER ACRE ⁽²⁾	SPECIAL USE INSTRUCTIONS
				- Do not apply more than 8 fl. oz./A (0.125 lb. a.i./A) in a single application. - Do not apply more than 32 fl. oz./A (0.5 lb. a.i./A) per year. - Do not make more than 4 applications per year.
Peanut (including perennial)	40 days	6 - 16 fl. oz.	1 qt. by ground or 1% v/v, but not less than 1 pt./A, by air. ⁽⁵⁾	Adding AMS has shown improved grass control for difficult to control species including; quackgrass, red rice, rhizome Johnsongrass, volunteer cereals, volunteer corn, and wild oats. For repeat applications, make on a minimum of a 14-day interval. Restrictions: - Do not use more than 16 fl. oz./A (0.25 lb. a.i./A) per application. - Do not make more than 4 applications at the lowest rate, 6-8 fl. oz./ A (0.094-0.125 a.i./A), or 2 applications at the highest rate, 16 fl. oz./A (0.25 lb. a.i./A) per year. - Do not make application of more than 32 fl. oz./A (0.5 lb. a.i./A) per year.
Potato	30 days	6 - 16 fl. oz.	1 qt. by ground or 1% v/v, but not less than 1 pt./A, by air. ⁽⁵⁾	For repeat applications, make on a minimum of a 14-day interval. Adding AMS has shown improved grass control for difficult to control species including; quackgrass, red rice, rhizome Johnsongrass, volunteer cereals, volunteer corn, and wild oats. Restrictions: - Do not use more than 16 fl. oz./A (0.25 lb. a.i./A) per application. - Do not make more than 4 applications at the lowest rate, 6-8 fl. oz./A (0.094-0.125 a.i./A), or 2 applications at the highest rate, 16 fl. oz./A (0.25 lb. a.i./A) per year. - Do not make application of more than 32 fl. oz./A (0.5 lb. a.i./A) per year.
Radish	15 days	6 - 8 fl. oz.	1% v/v in the finished spray volume.	A minimum 14-day interval required for repeat applications. Restrictions: - Do not apply more than 8 fl. oz./A (0.125 lb. a.i./A) in a single application. - Do not make more than 2 applications per acre per year. - Do not apply more than 16 fl. oz. (0.25 lb./a.i.) per acre in a year.

CROP SPECIFIC RATES, RESTRICTIONS AND LIMITATIONS FOR CLETHODIM 2E				
CROPS ⁽¹⁾	MINIMUM TIME FROM APPLICATION TO HARVEST (PHI)	USE RATES PER ACRE	CROP OIL CONCENTRATE RATES PER ACRE ⁽²⁾	SPECIAL USE INSTRUCTIONS
Root Vegetables (except Sugar Beet & Radish), including: Chicory Ginseng Horseradish Turnip	30 days	6 - 8 fl. oz.	1% v/v in the finished spray volume.	A minimum 14-day interval required for repeat applications. Restrictions: - Do not apply more than 8 fl. oz./A (0.125 lb. a.i./A) in a single application. - Do not make more than 4 applications per acre per year. - Do not make application of more than 32 fl. oz./A (0.5 lb. a.i./A) per year.
Safflower	70 days	6 - 8 fl. oz.	1% v/v in the finished spray volume.	A minimum 14-day interval required for repeat applications. Restrictions: - Do not apply more than 8 fl. oz./A (0.125 lb. a.i./A) in a single application. - Do not make more than 4 applications per acre per year. - Do not make application of more than 32 fl. oz./A (0.5 lb. a.i./A) per year.
Sesame	14 days	6 - 8 fl. oz.	1% v/v in the finished spray volume.	A minimum 14-day interval required for repeat applications. Restrictions: - Do not apply during flowering. - Do not apply more than 8 fl. oz./A (0.125 lb. a.i./A) in a single application. - Do not make more than 4 applications per acre per year. - Do not make application of more than 32 fl. oz./A (0.15 lb. a.i./A) per year.
Soybean	60 days	6 - 16 fl. oz.	1 qt. by ground or 1% v/v (but not less than 1 pt./A) by air. ⁽⁵⁾	Refer to appropriate Table for reduced rate directions for the control of small annual grasses. Adding AMS has shown improved grass control for difficult to control species including: quackgrass, rhizome Johnsongrass, red rice, volunteer cereals, volunteer corn, and wild oats. A minimum 14-day interval required for repeat applications. Restrictions: - Do not graze treated fields or feed treated forage or hay to livestock. - Do not use more than 16 fl. oz./A (0.25 lb. a.i./A) per application. - Do not make more than 4 applications at the lowest rate, 6-8 fl. oz./ A (0.094-0.125 a.i./A), or 2

CROP SPECIFIC RATES, RESTRICTIONS AND LIMITATIONS FOR CLETHODIM 2E				
CROPS ⁽¹⁾	MINIMUM TIME FROM APPLICATION TO HARVEST (PHI)	USE RATES PER ACRE	CROP OIL CONCENTRATE RATES PER ACRE ⁽²⁾	SPECIAL USE INSTRUCTIONS
				applications at the highest rate, 16 fl. oz./A (0.25 lb. a.i./A) per year. - Do not make application of more than 32 fl. oz./A (0.5 lb. a.i./A) per year. - For Reduced Rate Control for Small Annual Grasses: Do not make more than 8 applications at 4 fl. oz./A (0.0625 lb. a.i./A) per year.
Strawberry	4 days	6 - 8 fl. oz.	1% v/v in the finished spray volume.	A minimum 14-day interval required for repeat applications. Restrictions: - Do not apply more than 8 fl. oz./A (0.125 lb. a.i./A) in a single application. - Do not make more than 4 applications per acre per year. - Do not make application of more than 32 fl. oz./A (0.5 lb. a.i./A) per acre per year.
Sugar Beet	40 days	6 - 16 fl. oz.	1 qt. by ground or 1% v/v, but not less than 1 pt./A, by air. ⁽⁵⁾	A minimum 14-day interval required for repeat applications. Refer to the appropriate Table for reduced rate directions for the control of small annual grasses. Adding AMS has shown improved grass control for difficult to control species including: quackgrass, rhizome Johnsongrass, red rice, volunteer cereals, volunteer corn, and wild oats. Restrictions: - Do not use more than 16 fl. oz./A (0.25 lb. a.i./A) per application. - Do not make more than 4 applications at the lowest rate, 6-8 fl. oz./A (0.094-0.125 a.i./A), or 2 applications at the highest rate, 16 fl. oz./A (0.25 lb. a.i./A) per year. - Do not make application of more than 32 fl. oz./A (0.5 lb. a.i./A) per acre per year. - For Reduced Rate Control for Small Annual Grasses: Do not make more than 8 applications at 4 fl. oz./A (0.0625 lb. a.i./A) per year.
Sunflower	70 days	6 - 16 fl. oz.	1 qt. by ground or 1% v/v, but not less than 1 pt./A, by air. ⁽⁵⁾	A minimum 14-day interval required for repeat applications. Adding AMS has shown improved grass control for difficult to control species including: quackgrass, rhizome Johnsongrass, red rice, volunteer cereals, volunteer corn, and wild oats. Restrictions:

CROP SPECIFIC RATES, RESTRICTIONS AND LIMITATIONS FOR CLETHODIM 2E				
CROPS ⁽¹⁾	MINIMUM TIME FROM APPLICATION TO HARVEST (PHI)	USE RATES PER ACRE	CROP OIL CONCENTRATE RATES PER ACRE ⁽²⁾	SPECIAL USE INSTRUCTIONS
				- Do not use more than 16 fl. oz./A (0.25 lb. a.i./A) per application. - Do not make more than 4 applications at the lowest rate, 6-8 fl. oz./A (0.094-0.125 a.i./A), or 2 applications at the highest rate, 16 fl. oz./A per (0.25 lb. a.i./A) year. - Do not make application of more than 32 fl. oz./A (0.5 lb. a.i./A) per acre per year. - For Reduced Rate Control for Small Annual Grasses: Do not make more than 8 applications at 4 fl. oz./A (0.0625 lb. a.i./A) per year.
Sweet Potato, Yam and other tuberous and corm vegetables (except Potato), including: Artichoke - Chinese Jerusalem Cassava - Bitter Sweet Ginger	30 days	6 - 16 fl. oz.	1% v/v in the finished spray volume.	A minimum 14-day interval required for repeat applications. Adding AMS has shown improved grass control for difficult to control species including: quackgrass, rhizome Johnsongrass, red rice, volunteer cereals, volunteer corn, and wild oats. Restrictions: - Do not use more than 16 fl. oz./A (0.25 lb. a.i./A) per application. - Do not make application of more than 32 fl. oz./A (0.5 lb. a.i./A) per acre per year. - Do not make more than 4 applications per year.
Tomato	20 days	6 - 16 fl. oz.	1% v/v in the finished spray volume.	A minimum 14-day interval required for repeat applications. Restrictions: - Do not use more than 16 fl. oz./A (0.25 lb. a.i./A) per application. - Do not make more than 4 applications at the lowest rate, 6-8 fl. oz./A (0.094-0.125 a.i./A), or 2 applications at the highest rate, 16 fl. oz./A (0.25 lb. a.i./A) per year. - Do not make application of more than 32 fl. oz./A (0.5 lb. a.i./A) per acre per year.

N/A - Not Applicable

⁽¹⁾ CLETHODIM 2E is not recommended for use on vegetable crops being grown for seed production unless specific use directions are provided.⁽²⁾ Acceptable crop oil concentrates would be those that contain a minimum of 80% oils and 15% emulsifier. The crop oil concentration must contain either a petroleum or vegetable oil base and meet all the following criteria: a) contain only EPA-exempt ingredients, b) be nonphytotoxic, c) provides good mixing quality and d) be successful in local experience. Highly refined vegetable oils have proven more satisfactory than unrefined vegetable oil. For further information see the "Addition of Adjuvant and Crop Oil Concentrate" section.⁽³⁾ This product can be applied to seedling or established alfalfa grown for seed, hay, silage, green chop or direct grazing.⁽⁴⁾ The minimum use rate is 10 fl. oz./A for weed control in established alfalfa and mint.⁽⁵⁾ In addition to the recommended rate of crop oil concentrate, 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 the CLETHODIM 2E application.**NON-BEARING FOOD CROPS****DO NOT APPLY CLETHODIM 2E TO NON-BEARING FRUIT OR NUT CROPS GROWN FOR ROOT STOCK.**

If CLETHODIM 2E is improperly applied, crop injury to non-bearing fruit and nut crops can occur. Do not apply CLETHODIM 2E directly over the top of these plant types. Rather, direct the 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 one year following an application of CLETHODIM 2E.

COMMON NAME	SCIENTIFIC NAME
Apples	<i>Malus</i> spp.
Berries	<i>Vaccinium</i> spp.
	<i>Rubus</i> spp.
Cherry, Sweet	<i>Prunus avium</i>
Citrus Fruits	<i>Citrus</i> spp.
Grapes	<i>Vitis</i> spp.
Olives	<i>Olea</i> spp.
Peach	<i>Prunus persica</i>
Pears	<i>Pyrus communis</i>
Prunes	<i>Prunus</i> spp.
Stone Fruits	<i>Prunus</i> spp.
Strawberries	<i>Fragaria</i> spp.
Tree Nuts	
Almond	<i>Prunus triloba</i>
Filbert	<i>Corylus maxima</i>
Pecan	<i>Carya illinoensis</i>
Pistachio	<i>Pistacia vera</i>
Walnut	<i>Juglans</i> spp.

CONIFER TREES

CLETHODIM 2E 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	<i>Thuja occidentalis</i>
Cedars	<i>Cedrus</i> spp.
Cypress	<i>Taxodium</i> spp.
Fir, Douglas	<i>Pseudotsuga menziesii</i>
Firs	<i>Abies</i> spp.
Hemlock, Canadian/Eastern	<i>Tsuga Canadensis</i>
Hemlock, Western	<i>Tsuga heterophylla</i>
Pines	<i>Pinus</i> spp.
Spruces	<i>Picea</i> spp.
Yew	<i>Taxus</i> spp.

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; post-harvest croplands; and beneath greenhouse benches and around golf courses.

USE DIRECTIONS FOR ANNUAL GRASSES (EXCEPT FOR IN ESTABLISHED ALFALFA AND MINT)

- Apply only to actively growing grasses at recommended weed heights.
- Apply when the first grass weed species in a mixed grass weed population reaches the recommended growth stage for treatment.
- Use the higher rate under heavy grass pressure and/or when grasses are at maximum heights.
- Do not apply more than 8 fl. oz./A per application to the following crops:
asparagus, carrot, cranberry, cucurbits, flax, fruiting vegetables (except tomato), garden beet, green onion, head and stem brassica vegetables, herbs, hops, leaf petioles, leafy brassica greens, leafy greens, non-bearing food crops, root vegetables, safflower, sesame, and strawberry
- Do not apply more than 6 fl. oz./A of product per application to canola or mustard seed.

GRASS SPECIES	SCIENTIFIC NAME	WEED HEIGHT* (inches)	RATE FL. OZ./A ⁽⁵⁾	HIGH RATE ⁽⁴⁾
Barnyardgrass	<i>Echinochloa crus-galli</i>	2 to 8	6	8
Broadleaf Signalgrass	<i>Brachiaria platyphylla</i>	2 to 6	6	8
Brome				
California	<i>Bromus carinatus</i>	2 to 6	6	8
Cheat	<i>Bromus secalinus</i>	2 to 6	6	8

GRASS SPECIES	SCIENTIFIC NAME	WEED HEIGHT* (inches)	RATE FL. OZ./A ⁽⁵⁾	HIGH RATE ⁽⁴⁾
Downy	<i>Bromus tectorum</i>	2 to 6	6	8
Ripgut	<i>Bromus diandrus</i>	2 to 6	6	8
Canarygrass	<i>Phalaris canariensis</i>	1 to 4	6	8
Crabgrass				
Hairy	<i>Digitaria adscendens</i>	2 to 6**	6	8
Large	<i>Digitaria sanguinalis</i>	2 to 6**	6	8
Smooth	<i>Digitaria ischaemum</i>	2 to 6**	6	8
Southern	<i>Digitaria ciliaris</i>	2 to 6**	6	8
Crowfootgrass	<i>Dactyloctenium aegyptium</i>	2 to 6**	6	8
Fall Panicum	<i>Panicum dichotomiflorum</i>	2 to 8	6	8
Field Sandbur	<i>Cenchrus incertus</i>	2 to 6	6	8
Foxtail				
Giant	<i>Setaria faberi</i>	2 to 12	6	8
Green	<i>Setaria viridis</i>	2 to 8	6	8
Yellow	<i>Setaria glauca</i>	2 to 8	6	8
Goosegrass	<i>Eleusine indica</i>	2 to 6**	6	8
Itchgrass	<i>Rottboellia cochinchinensis</i>	2 to 6	6	8
Junglerice	<i>Echinochloa colona</i>	2 to 6	6	8
Lovegrass (Stinkgrass)	<i>Eragrostis cilianensis</i>	2 to 6	6	8
Rabbitsfootgrass	<i>Polypogon monspeliensis</i>	1 to 4	6	8
Red Rice	<i>Oryza sativa</i>	1 to 3	6	8
Ryegrass				
Hardy	<i>Lolium remotum</i>	2 to 6	6	8
Italian	<i>Lolium multiflorum</i>	2 to 6	6	8
Seedling Johnsongrass	<i>Sorghum halepense</i>	4 to 10	6	8
Shattercane	<i>Sorghum bicolor</i>	6 to 18	6	8
Southwestern Cupgrass	<i>Eriochloa gracilis</i>	2 to 6	6	8
Sprangletop				
Amazon	<i>Leptochloa panicoides</i>	2 to 6	6	8
Bearded	<i>Leptochloa fascicularis</i>	2 to 6	6	8
Mexican	<i>Leptochloa uninervia</i>	2 to 6	6	8
Red	<i>Leptochloa filiformis</i>	2 to 6	6	8
Texas Panicum	<i>Panicum texanum</i>	2 to 6	6	8
Volunteer Cereals ⁽³⁾				
Barley	<i>Hordeum vulgare</i>	2 to 6	6	8
Oats	<i>Avena sativa</i>	2 to 6	6	8
Rye	<i>Secale cereal</i>	2 to 6	6	8
Wheat	<i>Triticum aestivum</i>	2 to 6	6	8
Volunteer Corn ⁽²⁾	<i>Zea mays</i>	4 to 12	4	6
Volunteer Corn (S.R.) ⁽¹⁾	<i>Zea mays</i>	4 to 12	8 (suppression only)	
Volunteer Corn ⁽²⁾	<i>Zea mays</i>	12 to 24	6	8
Volunteer Grain Sorghum	<i>Sorghum bicolor</i>	8 to 12	6	8
Wild Oats	<i>Avena fatua</i>	2 to 6	6	8
Wild Proso Millet	<i>Panicum miliaceum</i>	2 to 10	6	8
Witchgrass	<i>Panicum capillare</i>	2 to 8	6	8
Woolly Cupgrass	<i>Eriochloa villosa</i>	2 to 8	6	8

* Generally occurs between 3-leaf stage and tillering.

** Length of lateral growth.

⁽¹⁾ Sethoxydim-resistant volunteer corn.

⁽²⁾ Includes Roundup Ready® and Liberty® volunteer corn.

⁽³⁾ The minimum CLETHODIM 2E use rate for control when a cereal grain crop (such as wheat) is interseeded for crop establishment or is planted as wind breaks to aid crop establishment is 8 fl. oz./A.

⁽⁴⁾ Where experience has shown that higher rates are needed for satisfactory control of annual grasses, rates higher than 8 fl. oz./A may be applied in certain geographic areas, cropping situations, or environmental conditions. In these situations, rates from 8 to 16 fl. oz./A can be applied. Do not apply more than 8 fl. oz./A of CLETHODIM 2E per application to the following crops: asparagus, carrot, cranberry, cucurbits, flax, fruiting vegetables (except tomato), garden beet, green onion, head and stem brassica vegetables, herbs, hops, leaf petioles, leafy brassica greens, leafy greens, non-bearing food crops, root vegetables, safflower, sesame, and strawberry. Do not apply more than 6 fl. oz./A of product per application to canola or mustard seed.

(5) 4 fl. oz./A (0.0625 lb. a.i./A); 6 fl. oz./A (0.094 lb. a.i./A); 8 fl. oz./A (0.125 lb. a.i./A).

USE DIRECTIONS FOR ANNUAL & PERENNIAL GRASS CONTROL IN ESTABLISHED ALFALFA AND MINT WITH CLETHODIM 2E

GRASS SPECIES	WEED STAGE	RATE FL. OZ./A	HIGH RATE
Annual & Perennial Grasses Listed in Grass Table	See Table	10	16

Mowing: Achieving the best control of annual grasses can be made by applying CLETHODIM 2E 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. Even though these grasses may be an annual grass, they may require repeated application of CLETHODIM 2E for partial or complete control.

Irrigated Alfalfa and Mint: Irrigation practices can be very critical to the successful use of CLETHODIM 2E in established alfalfa and mint and may be necessary to initiate active growth of the weeds prior to 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: When applying by air in established alfalfa and mint, apply CLETHODIM 2E in a minimum of 10 GPA.

Annual Grass Control: Make application at the grass sizes indicated in the Use Directions for Annual Grass Table and rates indicated above (10 to 16 fl. oz./A). If a grass has been cut, apply CLETHODIM 2E after active growth has resumed and regrowth has reached the minimum height and before it reaches the maximum height indicated. Make application before the alfalfa/mint 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 CLETHODIM 2E may vary from region to region. In addition, some annuals germinate over an extended period of time and because control of small grasses is desired, application 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, such as frost, slower plant growth, or the onset of flowering.

Perennial Grass Control: CLETHODIM 2E effectively controls perennial grasses, such as 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 a perennial crop, such as established alfalfa or mint. 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.

USE DIRECTIONS FOR ANNUAL BLUEGRASS CONTROL WITH CLETHODIM 2E

GRASS SPECIES	WEED STAGE	RATE FL. OZ./A	HIGH RATE
Annual Bluegrass (<i>Poa annua</i>)	to 4-leaf	6*	16

*Use a minimum of 10 fl. oz./A to control annual bluegrass in seedling and established alfalfa and mint.

1. 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).
2. Apply at weed stage indicated on the label, as reduced control can be expected with more mature annual bluegrass.
3. Use the high rate under heavy grass pressure and/or when annual bluegrass is more mature.
4. Always add a crop oil concentrate at 1 qt./A by ground to the finished spray volume.
5. Add a nonionic surfactant containing at least 80% active ingredient at the rate of 1 pt. per 50 gals. (0.25% v/v).

USE DIRECTIONS FOR USE IN ROUNDUP READY FIELD CORN (BURNDOWN)

APPLICATIONS RATES		
GRASS SPECIES	WEED SIZE (Inches)	Rate when applied alone or with glyphosate
Field Corn	Up to 12	3 fl. oz./A

- For control of existing stand of Roundup Ready field corn or volunteer Roundup Ready field corn prior to replanting field 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.
- Adjuvant Recommendations: NIS at 0.25% v/v plus AMS at 2.5 to 4 lbs./A.
- Do not use a COC or MSO with CLETHODIM 2E in this use pattern.

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

- Make application only to actively growing grasses and the recommended weed heights.
- Make application when the first grass weed species in a mixed grass weed population reaches the recommended 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.

Grass Species	Scientific Name	Weed Height (Inches)	Rate Fl. Oz./A ¹
Barnyardgrass	<i>Echinochloa crus-galli</i>	1 to 4	4
Broadleaf Signalgrass	<i>Brachiaria platyphylla</i>	1 to 4	5
Crabgrass			
Large	<i>Digitaria sanguinalis</i>	1 to 3*	4
Large	<i>Digitaria sanguinalis</i>	1 to 4*	5
Smooth	<i>Digitaria ischaemum</i>	1 to 3*	4
Smooth	<i>Digitaria ischaemum</i>	1 to 4*	5
Southern	<i>Digitaria ciliaris</i>	1 to 4*	5
Fall Panicum	<i>Panicum dichotomiflorum</i>	1 to 4	4
Foxtail			
Giant	<i>Setaria faberi</i>	1 to 4	4
Green	<i>Setaria viridis</i>	1 to 4	4
Millet	<i>Setaria italica</i>	1 to 4	5
Yellow	<i>Setaria glauca</i>	1 to 4	4
Seedling Johnsongrass	<i>Sorghum halepense</i>	1 to 6	5
Shattercane	<i>Sorghum bicolor</i>	4 to 10	4
Texas Panicum	<i>Panicum texanum</i>	1 to 4	5
Volunteer Cereals			
Barley	<i>Hordeum vulgare</i>	1 to 4	5
Oats	<i>Avena sativa</i>	1 to 4	5
Wheat	<i>Triticum aestivum</i>	1 to 4	5
Volunteer Corn**	<i>Zea Mays</i>	4 to 12	4
Wild Proso Millet	<i>Panicum miliaceum</i>	1 to 6	4
Wild Oats	<i>Avena fatua</i>	1 to 4	5

* Length of lateral growth.

** Not sethoxydim-resistant corn.

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

USE DIRECTIONS FOR PERENNIAL GRASSES

- Make application only to actively growing grasses at the recommended weed heights.
- Make application when the first grass weed species in a mixed grass weed population reaches the recommended growth stage for treatment.
- Use the higher rate under heavy grass pressure and/or when grasses are at maximum height.
- Do not apply more than 8 fl. oz./A of CLETHODIM 2E per application to the following crops:
asparagus, carrot, cranberry, cucurbits, flax, fruiting vegetables (except tomato), garden beet, green onion, head and stem brassica vegetables, herbs, hops, leaf petioles, leafy brassica greens, leafy greens, non-bearing food crops, root vegetables, safflower, sesame, and strawberry
- Do not apply more than 6 fl. oz./A of product per application to canola or mustard seed.

GRASS SPECIES	WEED HEIGHT (Inches)	RATE FL. OZ./A ⁽¹⁾	HIGH RATE
Bermudagrass (<i>Cynodon dactylon</i>)			
First Application	3 (or up to 6" runners)	8	16
Repeat Application(s) (if regrowth occurs)	3 (or up to 6" runners)	8	16
Fescue, Tall (<i>Festuca arundinacea</i>)			
First Application	4 to 8	8	16
Repeat Application(s) (if regrowth occurs)	4 to 8	8	16
Foxtail Barley (<i>Hordeum jubatum</i>)			
First Application	2 to 6	8	16
Repeat Application(s) (if regrowth occurs)	2 to 6	8	16

GRASS SPECIES	WEED HEIGHT (Inches)	RATE FL. OZ./A ⁽¹⁾	HIGH RATE
Orchardgrass (<i>Dactylis glomerata</i>)			
First Application	4 to 8	8	16
Repeat Application(s) (if regrowth occurs)	4 to 8	8	16
Quackgrass* (<i>Elytrigia repens</i>)			
First Application	4 to 12	8	16
Repeat Application(s) (if regrowth occurs)	4 to 12	8	16
Rhizome Johnsongrass (<i>Sorghum halepense</i>)			
First Application	12 to 24	8	16
Repeat Application(s) (if regrowth occurs)	6 to 18	6	8
Wirestem Muhly (<i>Muhlenbergia frondosa</i>)			
First Application	4 to 8	8	16
Repeat Application(s) (if regrowth occurs)	4 to 8	8	16
Perennial Bluegrass* Roughstalk (<i>Poa trivialis</i>) Kentucky (<i>Poa pratensis</i>)			
First Application	2 to 4	8	16
Repeat Application(s) (if regrowth occurs)	2 to 4	8	16
Bentgrass* (<i>Agrostis</i> spp.)			
First Application	2 to 4	-	16
Repeat Application(s) (if regrowth occurs)	2 to 4	-	16

*Control of quackgrass, perennial bluegrass and bentgrass with this product may be enhanced by adding AMS at 2.5 - 4.0 lbs./A.

⁽¹⁾ 6 fl. oz./A (0.094 lb. a.i./A); 8 fl. oz./A (0.125 lb. a.i./A)

TANK MIXES

The labels for each of the herbicides recommended for tank mixing with CLETHODIM 2E are unique to the characteristics of those products and contain restrictions and limitations that may be more restrictive than CLETHODIM 2E in certain considerations. These may include, but are not limited to:

- 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 may differ;
- Applicator Certification requirements;
- Worker safety rules, i.e., Personal Protective Equipment (PPE), re-entry time, posting;
- Soil characteristics or soil type, e.g., pH, OM;
- Maximum application rate or number or applications allowed per season;
- Rain free period required;
- Application timing, e.g., pre-harvest interval;
- Do not exceed the total season rates.

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

TANK MIX APPLICATION OF CLETHODIM 2E AND BROADLEAF HERBICIDES FOR CONTROL OF GRASSES AND BROADLEAF WEEDS

- Make application only to actively growing grass and broadleaf weeds at recommended height or growth stage listed on each label.
- Make application when the first grass or broadleaf weed species in a mixed population reaches the recommended height or growth stage for treatment.
- Make application under favorable soil moisture and humidity that exist a few days after rainfall or within seven (7) days after irrigation.
- Always add the appropriate adjuvant to the spray mix at the rate recommended for each specific tank mix combination.
- Tank mix application can 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, apply a second application of CLETHODIM 2E as specified in the respective size and rate tables.
- Do not tank mix CLETHODIM 2E when broadleaf weeds are tall and/or dense enough to prevent proper grass coverage.

MIXING INSTRUCTIONS

Use the jar test to verify mixing and compatibility properties. Maintain agitation throughout the spray application. Unsatisfactory weed control may result due to improper mixing if continuous agitation is not maintained during application.

CLETHODIM 2E Tank Mix: Add 1/2 the required water to the spray tank and begin agitation. Add the required amount of CLETHODIM 2E and mix thoroughly. Then add the required amount of tank mix partner and continue mixing. Finally, add the required amount of crop oil concentrate and/or nitrogen fertilizer and the remaining water.

ANTAGONISM INFORMATION

Tank mixes of CLETHODIM 2E with post-emergence broadleaf herbicides have shown some reduction or failure to control certain grass species, which would have otherwise been controlled by CLETHODIM 2E alone. Activity of the post-emergence broadleaf herbicide in the tank mix is not affected.

ALFALFA**Table 1. CLETHODIM 2E TANK MIXES WITH BROADLEAF HERBICIDES FOR ALFALFA**

(See Use Direction tables above for specific grasses and growth stages.)

PRODUCT ²	APPLICATION RATES/ACRE ¹			
	ANNUAL GRASSES	PERENNIAL GRASSES	CROP OIL CONCENTRATE ³	
			GROUND	AIR
CLETHODIM 2E + 2,4-DB ⁴	10 - 16 fl. oz. + See 2,4-DB label.	10 - 16 fl. oz. + See 2,4-DB label.	1%	1%
CLETHODIM 2E + PURSUIT DG ⁵ or PURSUIT ⁵	10 - 16 fl. oz. + 1.08 - 2.16 oz. or 3 - 6 fl. oz.	-	1%	1%
CLETHODIM 2E + BUCTRIL® 2L ⁶ or BUCTRIL GEL ^{6,7}	10 - 16 fl. oz. + 1.0 - 1.5 pts. or 0.5 - 0.75 pt.	-	0.5%	0.5%

¹ If grass regrowth occurs or an additional flush of new grass emerges, apply a second application of CLETHODIM 2E alone - without a tank mix herbicide, according to the appropriate size and rate directions.

² 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 recommended in these situations.

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

⁴ CLETHODIM 2E 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.

⁵ Before using this tank mix, read and understand the PURSUIT or PURSUIT DG labels for geographical restrictions and restrictions regarding alfalfa growth stage and type. Failure to do so can result in crop injury to alfalfa. DO NOT feed, graze or harvest alfalfa for 30 days following an application of PURSUIT to alfalfa.

⁶ States of Colorado, Idaho, Montana, Nevada, Oregon, Utah, Washington, Wyoming and the western halves of Kansas, Nebraska, North Dakota, and South Dakota: The tank mix of CLETHODIM 2E plus BUCTRIL or BUCTRIL GEL must be applied in the fall or spring to seedling alfalfa when the majority of the field has a minimum of 2 trifoliolate. Unacceptable crop injury can occur to alfalfa seedlings less than the 2 trifoliolate leaf stage. BUCTRIL or BUCTRIL GEL plus CLETHODIM 2E applications made when temperatures are expected to exceed 80°F 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 trifoliolate leaves. Unacceptable crop injury may occur to alfalfa in the 2 trifoliolate or smaller stage growth, when alfalfa stand is uneven and conditions favor leaf burn. When applications of CLETHODIM 2E plus BUCTRIL or BUCTRIL GEL are made when temperatures are expected to exceed 70°F and three days following such application can result in unacceptable crop injury. Crop leaf burn can occur following CLETHODIM 2E plus BUCTRIL or BUCTRIL GEL applications. Warm, humid conditions may enhance leaf burn. However, new crop growth will not be affected.

⁷ Do not make application when alfalfa is under moisture, temperature, insect or disease stress or has been stressed by other pesticide carryover or application.

CANOLA**Table 2. REDUCED RATE CLETHODIM 2E TANK MIXES WITH BROADLEAF HERBICIDES FOR CANOLA**

(See Use Direction tables above for specific grasses and growth stages.)

Not for use in California unless accompanied by a supplemental label.

PRODUCT	APPLICATION RATES/ACRE			
	ANNUAL GRASSES ¹	PERENNIAL GRASSES	AMMONIUM SULFATE	
			GROUND	AIR

CLETHODIM 2E ² + LIBERTY ³	4 - 5 fl. oz. + 34 fl. oz.	-	3.0 lbs.	3.0 lbs.
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¹ 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.

² Do not apply CLETHODIM 2E tank mix during or after bolting or flowering or crop injury could occur.

³ For use only on Liberty® canola.

COTTON

Table 3. CLETHODIM 2E TANK MIXED WITH COBRA HERBICIDE AND MSMA APPLIED POST-DIRECTED TO COTTON

PRODUCT ²	APPLICATION RATES/ACRE ¹		CROP OIL CONCENTRATE ³	COMMENTS
	ANNUAL GRASSES	PERENNIAL GRASSES	GROUND	
CLETHODIM 2E ⁴ + COBRA HERBICIDE + MSMA (4.0 lbs./gal.) or MSMA (6.6 lbs./gal.)	6 - 8 fl. oz.	8 - 16 fl. oz.	1% v/v	Reduce broadcast rate in proportion to the band area actually treated.
	See COBRA HERBICIDE product label for rates to control broadleaf weeds and height limitations for cotton. See CLETHODIM 2E label for weed height and species controlled.			
	See MSMA label for rates to control broadleaf weeds and height limitations for cotton. See CLETHODIM 2E label for weed height and species controlled.			

¹ If grass regrowth occurs or an additional flush of new grass emerges, apply a second application of CLETHODIM 2E alone - without a tank mix herbicide - according to the appropriate size and rate directions.

² 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 recommended in these situations.

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

⁴ If 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 can result and a second non-post directed application of CLETHODIM 2E may be necessary.

Table 4. CLETHODIM 2E TANK MIXED WITH BUCTRIL 4 EC TO CONTROL EMERGED WEEDS IN BXN COTTON AS A BROADCAST APPLICATION

PRODUCT ²	APPLICATION RATE/ACRE ¹	CROP OIL CONCENTRATE ³	COMMENTS ⁷
	ANNUAL GRASSES		
CLETHODIM 2E + BUCTRIL 4 EC ^{4,5,6}	8 - 16 fl. oz. Refer to BUCTRIL 4 EC label for rates to control broadleaf weeds and height limitations for cotton.	1 qt./A	See charts for grasses controlled.

¹ If grass regrowth occurs or an additional flush of new grass emerges, apply a second application of CLETHODIM 2E at the recommended rate with the appropriate amount of crop oil concentrate in a non-BUCTRIL tank mix.

² 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.

³ Always add a crop oil concentrate 1 qt./A by ground in the finished spray solution.

⁴ Applications of BUCTRIL 4 EC can be made only to cotton that has been genetically modified for crop tolerance to post-emergence over-the-top applications of bromoxynil.

⁵ Do not apply the CLETHODIM 2E plus BUCTRIL tank mix within 75 days of harvest.

⁶ Do not exceed 2 applications of BUCTRIL before cotton is 12 inches tall and one application after 12 inches tall.

⁷ Use a minimum of 10 gallons of spray solution per acre.

Table 5. CLETHODIM 2E TANK MIXED WITH GLYPHOSATE TO CONTROL EMERGED GRASSES IN COTTON AS A BROADCAST APPLICATION

PRODUCT	APPLICATION RATE/ACRE ¹		ADJUVANT		COMMENTS
	ANNUAL GRASSES	PERENNIAL GRASSES	Glyphosate formulation with built in adjuvant	Glyphosate formulation without built in adjuvant	
CLETHODIM 2E + GLYPHOSATE	6 - 8 fl. oz. See glyphosate label for rates to control broadleaf weeds and height limitations for cotton	8 - 16 fl. oz.	Nonionic surfactant @ 0.125 to 0.25% v/v plus ammonium sulfate @ 8.5 to 17 lbs. per 100 gallons carrier.	Crop oil concentrate @ 1 pt./A plus Ammonium sulfate @ minimum of 8.5 to 17 lbs. per 100 gals. carrier.	See charts for grasses controlled. Use a minimum of 10 gals. of spray solution per acre.

¹ If grass regrowth occurs or an additional flush of new grass emerges, apply a second application of CLETHODIM 2E at the recommended rate with the appropriate amount of crop oil.

DRY SHELLED AND SUCCULENT BEAN

Not for use in California unless accompanied by a supplemental label.

Table 6. CLETHODIM 2E TANK MIXES WITH BROADLEAF HERBICIDES FOR DRY SHELLED AND SUCCULENT BEANS
(See Use Direction tables above for specific grasses and growth stages.)

PRODUCT ²	APPLICATION RATES/ACRE ¹			
	ANNUAL GRASSES	PERENNIAL GRASSES	CROP OIL CONCENTRATE ³ (V/V)	
			GROUND	AIR
CLETHODIM 2E ² + BENTAZON 4	8 - 10 fl. oz. + 1.0 - 2.0 pts./A	10 - 16 fl. oz. + 1 to 2 pts.	1%	1%

¹ If grass regrowth occurs or an additional flush of new grass emerges, make a second application of CLETHODIM 2 EC alone - without a tank mix herbicide - according to the appropriate size and rate directions.

² Broadleaf weed control can 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 recommended in these situations.

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

FLAX

Not for use in California unless accompanied by a supplemental label.

Table 7. REDUCED RATE CLETHODIM 2E TANK MIXES WITH BROADLEAF HERBICIDES FOR FLAX
(See Use Direction tables above for specific grasses and growth stages.)

PRODUCT	APPLICATION RATES/ACRE			
	ANNUAL GRASSES ¹	PERENNIAL GRASSES	CROP OIL CONCENTRATE	
			GROUND	AIR
CLETHODIM 2E + BRONATE ADVANCED ^{2,3}	4 - 5 fl. oz. + 11.4 fl. oz.	-	1 pt.	1 pt.
CLETHODIM 2E + BRONATE ^{2,3}	4 - 5 fl. oz. + 0.9 pt.	-	1 pt.	1 pt.
CLETHODIM 2E + BUCTRIL ^{2,3}	4 - 5 fl. oz. + 1.0 pt.	-	1 pt.	1 pt.
CLETHODIM 2E + RHONOX ^{2,3}	4-5 fl. oz. + 0.25 - 0.5 pt.	-	1 pt.	1 pt.

¹ 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.

² Do not apply CLETHODIM 2E tank mix during or after the bud stage or to ornamental flax as crop injury can occur

³ Do not apply tank mixes when temperatures are expected to exceed 85°F at or for 3 days following application as crop injury can occur.

SOYBEAN**Table 8. CLETHODIM 2E TANK MIXES³ TO CONTROL ANNUAL GRASSES WHEN USED AS A BURNDOWN IN NO-TILL SOYBEANS**

PRODUCT	PRODUCT RATE/ACRE ¹	GRASS HEIGHT (Inches)	CROP OIL CONCENTRATE ² +	28%N OR 32%N qts./A OR 2.5 - 4.0 lbs. AMS
CLETHODIM 2E + 2,4-D ESTER* ³	3 fl. oz.	Foxtail 1 to 3 Fall Panicum 1 to 3	1 qt./A	1 - 2 qts. or 2.5 - 4.0 lbs. AMS
	4 fl. oz.	Foxtail 1 to 4 Fall Panicum 1 to 4	1 qt./A	1 - 2 qts. or 2.5 - 4.0 lbs. AMS
	6 - 8 fl. oz. + 0.5 lb. a.i.	(See Grass Chart for grasses claimed.)	1 qt./A	1 - 2 qts. or 2.5 - 4.0 lbs. AMS

* 2, 4-D ester should NOT be used where drift sensitive crops may be grown.

¹ Apply a second application of CLETHODIM 2E, according to the appropriate size and rate directions, if regrowth occurs or an additional flush of new grass emerges.

² Always use a crop oil concentrate at the listed rate in the finished spray volume.

³ The following products can be tank mixed with CLETHODIM 2E plus 2,4-D ester: DUAL MAGNUM, PROWL, SENCOR®, and SENCOR plus Dual Magnum.

Table 9. CLETHODIM 2E TANK MIXES WITH BROADLEAF HERBICIDES FOR SOYBEAN

(See Use Direction tables above for specific grasses and growth stages.)

PRODUCT ²	APPLICATION RATES/ACRE ¹			
	ANNUAL GRASSES	PERENNIAL GRASSES	CROP OIL CONCENTRATE ³ (V/V)	
			GROUND	AIR
CLETHODIM 2E + COBRA	6 - 8 fl. oz. + 12.5 fl. oz.	8 - 16 fl. oz. + 12.5 fl. oz.	0.5 to 1%	1%
CLETHODIM 2E + BENTAZON 4	8 - 10 fl. oz. + 1 - 2 pts.	10 - 16 fl. oz. + 1 - 2 pts.	1%	1%
CLETHODIM 2E + Glyphosate (For use on Roundup Ready soybeans only.)	6 - 8 fl. oz. + See Glyphosate label for specific application rates.	8 - 16 fl. oz. + See Glyphosate label for specific application rates.	0.5 to 1% ⁴	1% ⁴
CLETHODIM 2E + Flexstar HL ⁶	6 - 8 fl. oz. + See Flexstar HL label for specific application rates.	8 - 16 fl. oz. + See Flexstar HL label for specific application rates.	1%	1%
CLETHODIM 2E + Classic 25DG	8 - 10 fl. oz. + 0.5 - 0.75 oz.	10 - 16 fl. oz. + 0.5 - 0.75 oz.	1%	1%
CLETHODIM 2E ⁵ + PURSUIT 70 DG	6 - 8 fl. oz. + 4 fl. oz.	8 - 16 fl. oz. + 4 fl. oz.	1%	1%
CLETHODIM 2E ⁵ + COBRA + CLASSIC 25DG	8 - 10 fl. oz. + 6 - 8 fl. oz. + 0.5 - 0.75 oz.	-	0.5%	1%
CLETHODIM 2E ⁵ + COBRA + BENTAZON 4	8 - 10 fl. oz. + 6 - 10 fl. oz. + 1 - 1.5 pts.	-	0.5%	1%
CLETHODIM 2E ⁵ + COBRA + PURSUIT 70 DG	8 - 10 fl. oz. + 6 - 10 fl. oz. + 4 fl. oz.	-	0.5%	1%
CLETHODIM 2E ⁵ + STORM	8 - 10 fl. oz. + 1.5 pts.	-	0.5%	1%
CLETHODIM 2E ⁵ + RESOURCE® + PURSUIT 70 DG	8 - 10 fl. oz. + 4 fl. oz. + 4 fl. oz.	-	1%	1%
CLETHODIM 2E ⁵ + RESOURCE + BENTAZON 4	8 - 10 fl. oz. + 4 fl. oz. + 1 pt.	-	1%	1%
CLETHODIM 2E ⁵ + RESOURCE	8 - 10 fl. oz. + 4 fl. oz.	-	1%	1%

PRODUCT ²	APPLICATION RATES/ACRE ¹			
	ANNUAL GRASSES	PERENNIAL GRASSES	CROP OIL CONCENTRATE ³ (V/V)	
			GROUND	AIR
CLASSIC	0.5 oz.			
CLETHODIM 2E ⁵ + COBRA + RESOURCE	6 - 8 fl. oz. + 6 fl. oz. + 4 fl. oz.	-	0.5%	1%
CLETHODIM 2E ⁵ + FIRSTRATE®	6 - 8 fl. oz. + 0.3 oz.	8 - 16 fl. oz. + 0.3 oz.	1%	-
CLETHODIM 2E ⁵ + COBRA + FIRSTRATE®	6 - 8 fl. oz. + 6 - 8 fl. oz. + 0.3 oz.	8 - 16 fl. oz. + 6 - 8 fl. oz. + 0.3 oz.	1%	-
CLETHODIM 2E ⁵ + RAPTOR (1 AS)	6 - 8 fl. oz. + 4 - 5 fl. oz.	-	1%	-
CLETHODIM 2E ⁵ + COBRA + RAPTOR (1 AS)	6 - 8 fl. oz. + 6 - 8 fl. oz. + 4 - 5 fl. oz.	-	1%	-
CLETHODIM 2E ⁵ + SYNCHRONY® STS™	6 - 8 fl. oz. ⁷ + 0.5 oz.	-	1 qt.	-
CLETHODIM 2E ⁵ + COBRA + SYNCHRONY STS	6 - 8 fl. oz. ⁷ + 4 - 8 fl. oz. + 0.5 oz.	-	1 pt.	-
CLETHODIM 2E ⁵ + RESOURCE	6 - 8 fl. oz. + 4 - 12 fl. oz.	-	1 qt.	-
CLETHODIM 2E ⁵ + FRONTROW™	8 - 10 fl. oz. + Refer to FRONTROW label for use rates.	-	1%	-
CLETHODIM 2E + FIRSTRATE + FLEXSTAR HL ⁶	6 - 8 fl. oz. + 0.3 oz. + Refer to the FLEXSTAR HL label for specific application rates.	8 - 16 fl. oz. + 0.3 oz. + Refer to the FLEXSTAR HL label for specific application rates.	1%	-

¹ If grass regrowth occurs or an additional flush of new grass emerges, make a second application of CLETHODIM 2E alone - without a tank mix herbicide – according to the appropriate size and rate directions.

² Broadleaf weed control can 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 recommended in these situations.

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

⁴ When CLETHODIM 2E is tank mixed with glyphosate, the addition of 2.5 lbs. ammonium sulfate is required. If the glyphosate formulation has a standalone build-in adjuvant, add 0.125% v/v nonionic surfactant in place of crop oil concentrate. Add 0.5% to 1% crop oil concentrate for ground application and 1% v/v for aerial application, if the glyphosate formulation does not have a build-in adjuvant system.

⁵ When CLETHODIM 2E is tank mixed with PURSUIT, RESOURCE, STORM, FIRSTRATE, SYNCHRONY, RAPTOR, FRONTROW, COBRA plus CLASSIC, COBRA plus BENTAZON 4, COBRA plus PURSUIT, COBRA plus FIRSTRATE, COBRA plus SYNCHRONY, and COBRA plus RAPTOR, the addition of 1 - 2 qts./A of liquid fertilizer (10-34-0, 28%N, or 32%N) is recommended. 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.

⁶ Refer to FLEXSTAR HL label for geographic and rotational restrictions.

⁷ 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.

Table 10. REDUCED RATE CLETHODIM 2E TANK MIXES WITH BROADLEAF HERBICIDES FOR SOYBEAN
(See table for DIRECTIONS FOR REDUCED RATE TO CONTROL SMALL ANNUAL GRASSES.)

PRODUCT	APPLICATION RATES/ACRE ¹			
	ANNUAL GRASSES ²	PERENNIAL GRASSES	CROP OIL CONCENTRATE ^{3, 4} (V/V)	
			GROUND	AIR
CLETHODIM 2E + FIRSTRATE	4 - 8 fl. oz. + 0.3 oz.	-	1%	1%
CLETHODIM 2E + PURSUIT 70 DG	4 - 6 fl. oz. + 1.44 oz.	-	1%	1%

¹ Make a second application of CLETHODIM 2E alone - without a tank mix herbicide - according to the appropriate size and rate directions if grass regrowth occurs or an additional flush of new grass emerges.

² Annual grasses and sizes controlled with these tank mixtures are those that are identified in the USE DIRECTIONS FOR SMALL ANNUAL GRASSES table.

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

⁴ When CLETHODIM 2E is tank mixed at reduced rates, the addition of 1 - 2 qts./A of liquid fertilizer (10-34-0, 28%N, or 32%N) is required. 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.

USE DIRECTIONS FOR ROUNDUP READY VOLUNTEER CORN CONTROL IN ROUNDUP READY SOYBEANS WITH CLETHODIM 2E HERBICIDE TANK MIX

Roundup Ready Volunteer Corn Height (Inches)	CLETHODIM 2E Rate Fl. Oz./A	Glyphosate ⁽¹⁾ rate for formulations <u>with</u> built in adjuvant	Adjuvant
<12	4	1.0 to 2.0 lbs. a.i./A (Approximately equivalent to 22 to 44 fl. oz./A of ROUNDUP weather MAX.)	Nonionic surfactant @ 0.125 to 0.25% v/v plus ammonium sulfate @ 8.5 to 17 lbs. per 100 gals. of carrier.
12 to 18	5		
18 to 24	6		
Roundup Ready Volunteer Corn Height (Inches)	CLETHODIM 2E Rate Fl. Oz./A	Glyphosate ⁽¹⁾ rate for formulations <u>without</u> built in adjuvant	Adjuvant
<12	4	Up to 2.0 lbs. a.i./A (Equivalent to 32 to 64 fl. oz./A of ROUNDUP Original.)	Crop oil concentrate @ 1 pt./A plus ammonium sulfate @ 8.5 to 17 lbs. per 100 gals. of carrier.
12 to 18	5		
18 to 24	6		

⁽¹⁾ Glyphosate formulation must be labeled for use on Roundup Ready soybeans.

PEANUT (Including Perennial)**Table 11. CLETHODIM 2E TANK MIXES WITH BROADLEAF HERBICIDES FOR PEANUT**
(See Use Direction tables above for specific grasses and growth stages.)

PRODUCT ²	APPLICATION RATES/ACRE ¹			
	ANNUAL GRASSES ²	PERENNIAL GRASSES	CROP OIL CONCENTRATE ³ (V/V)	
			GROUND	AIR
CLETHODIM 2E + BENTAZON 4	8 - 10 fl. oz. + 1.0 - 2.0 pts.	-	1%	1%
CLETHODIM 2E + STORM	8 - 10 fl. oz. + 1.5 pts.	-	1%	1%

¹ Make a second application of CLETHODIM 2E alone - without a tank mix herbicide - according to the appropriate size and rate directions, if grass regrowth occurs or an additional flush of new grass emerges.

² 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 recommended in these situations.

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

USE DIRECTIONS FOR GRASS SUPPRESSION FOR HARVEST EFFICIENCY IN PEANUT WITH CLETHODIM 2E			
GRASS SPECIES	WEED STAGE	RATE FL. OZ./A	HIGH RATE
Annual and perennial grasses that exceed height claimed for control on height charts "USE DIRECTIONS FOR ANNUAL"	Up to and including grasses in the seed head stage.	16	32

GRASSES” & “USE DIRECTIONS FOR PERENNIAL GRASSES”			
Do not apply as part of a tank mix when applying CLETHODIM 2E for grass suppression.			
Add a crop oil concentrate at 1 qt./A by ground to the finished spray volume.			

SUGAR BEET**Table 12. CLETHODIM 2E TANK MIXED WITH SPUR (clopyralid) APPLIED TO SUGAR BEETS**

(See USE DIRECTIONS tables above for specific grasses and growth stages.)

PRODUCT ²	APPLICATION RATES/ACRE ¹		
	ANNUAL GRASSES	PERENNIAL GRASSES	CROP OIL CONCENTRATE ³ (V/V)
			GROUND AIR
CLETHODIM 2E + SPUR	6 - 8 fl. oz.	8 - 16 fl. oz.	1%
	See the SPUR label for rates. Refer to the CLETHODIM 2E label for weed height and species controlled.		

¹ Make a second application of CLETHODIM 2E alone - without a tank mix herbicide - according to the appropriate size and rate directions, if grass regrowth occurs or an additional flush of new grass emerges.

² 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 recommended in these situations.

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

Table 13. CLETHODIM 2E TANK MIXED WITH BETANEX OR BETAMIX APPLIED TO SUGAR BEET

PRODUCT ²	WEEDS CONTROLLED		WEED HEIGHT (Inches)	APPLICATION RATES/ACRE ¹
	COMMON NAME	SCIENTIFIC NAME		
CLETHODIM 2E ³ + BETANEX or BETAMIX	Barnyardgrass	<i>Echinochloa crus-galli</i>	1 to 3	8 fl. oz.
	Foxtail	<i>Setaria</i> spp.	1 to 3	
	Foxtail Millet	<i>Setaria italica</i>	1 to 3	
	Wild Oat	<i>Avena fatua</i>	1 to 3	
	Wild Proso Millet	<i>Panicum miliaceum</i>	1 to 3	
			See BETANEX OR BETAMIX label for rates to control broadleaf weeds. No additives are recommended in this tank mix.	

¹ Do not use crop oil concentrate. No additives are recommended in this tank mix.

² 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 recommended in these situations.

³ Make a second application of CLETHODIM 2E at the full label rate with appropriate rate of crop oil concentration, if grass regrowth occurs or an additional flush of new grass emerges.

Table 14. CLETHODIM 2E PLUS BETANEX OR BETAMIX TANK MIX FOR THREE SEQUENTIAL APPLICATIONS FOR ANNUAL GRASS CONTROL (MICRO-RATE APPLICATION)

PRODUCT	APPLICATION RATES/ACRE ¹			
	ANNUAL GRASSES	GRASSES CONTROLLED (inches)	METHYLATED SEED OIL ² (V/V)	
			GROUND	AIR
CLETHODIM 2E + BETANEX or BETAMIX	2 - 3 fl. oz. + 0.8 - 12 fl. oz. ³ or 0.8 - 12 fl. oz. ³	Green Foxtail (1-2) Yellow Foxtail (1-2) Barnyardgrass (1-2) Wild Oat (1-2) Volunteer Cereals (1-2)	1.5%	1.5%

¹ 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 recommended in these situations.

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

³ When sugar beets are in the cotyledon to 4-leaf stage, use 8 fl. oz./A rate. This rate can be increased up to 12 fl. oz./A when the smallest sugar beet plants in the field are in the 4 true leaf stage or larger.

DIRECTIONS FOR USE WITH MICRO-RATE APPLICATIONS TO SUGAR BEETS

Multiple micro-rate applications of CLETHODIM 2E in tank mixtures with reduced rates of BETANEX or BETAMIX and methylated seed oils can be applied by air or ground equipment to sugar beets to control early germinating annual grasses listed above. Do not exceed the rate of 0.12 lb. a.i./A broadcast application for BETANEX or BETAMIX when in combination with these spray adjuvants. Note that maximum rate allowed varies depending on crop growth stage. The use of wetting agents or spray adjuvants with conventional rates (0.73 - 1.22 lbs. a.i./A) or multiple low rate (0.24 to 0.73 lb. a.i./A) applications of BETANEX or BETAMIX is prohibited on the BETANEX and BETAMIX master label. Favorable climatic conditions, i.e., good conditions for plant growth and development, are essential for adequate weed control. All use precautions and restrictions on the BETANEX and BETAMIX master labels must be followed.

DIRECTIONS FOR USING MICRO-RATE MULTIPLE APPLICATIONS OF CLETHODIM 2E TANK MIXES

Apply CLETHODIM 2E in broadcast applications only at a rate of 2 - 3 fl. oz./A in tank mixture with either BETANEX or BETAMIX following the directions for use on the tank mix partner label. A minimum of three sequential applications of 2 fl. oz./A or a minimum of 2 sequential applications of 3 fl. oz./A should be utilized for CLETHODIM 2E tank mixtures. A minimum of 3 sequential applications of BETANEX or BETAMIX should be used. Accurate timing is essential. Immediately after weeds emerge, make initial application and make repeat applications on 5- to 7-day intervals. Return to conventional application rates of CLETHODIM 2E, 6 - 8 fl. oz./A, and add rates of BETANEX or BETAMIX as directed on their label, if weed control is not adequate due to climatic conditions, spray coverage or other factors. A spray adjuvant is not recommended when using conventional rates of BETANEX or BETAMIX in tank mixtures with CLETHODIM 2E.

Use Precautions for Micro-Rate Applications:**(See CLETHODIM 2E, BETANEX and BETAMIX master label for further use precautions)**

Even with favorable climatic conditions, not all weeds will be adequately controlled. If multiple micro-rate applications do not adequately control weeds, conventional rates of CLETHODIM 2E, BETANEX or BETAMIX and/or hand labor may be required. 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. If the BETANEX or BETAMIX rate exceeds 0.12 lb. a.i./A broadcast, methylated seed oils must not be added. This addition of methylated seed oils could increase the possibility of crop injury at dosage rates greater than 0.12 lb. a.i./A.

GROUND APPLICATION

It is essential to use sufficient spray volumes and pressure to ensure complete coverage. Use a minimum of 10 gallons and maximum of 20 gallons spray solution per acre. Spray pressures should reflect a minimum of 30 PSI and a maximum of 60 PSI at the nozzle. Do not use flood nozzles.

AERIAL APPLICATION

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

Table 15. TANK MIX APPLICATION OF CLETHODIM 2E AND FUNGICIDES FOR CONTROL OF GRASS WEEDS AND DISEASES IN SUGAR BEET

PRODUCT ²	APPLICATION RATES/ACRE ¹		
	ANNUAL GRASSES	PERENNIAL GRASSES	CROP OIL CONCENTRATE ³ (V/V)
CLETHODIM 2E + EMINENT®	6 - 8 fl. oz. + 13 fl. oz.	8 - 16 fl. oz. + 13 fl. oz.	1%

¹ Make a second application of CLETHODIM 2E at the full label rate with appropriate rate of crop oil concentration, if grass regrowth occurs or an additional flush of new grass emerges.

² Refer to CLETHODIM 2E and fungicide label for rates and weeds and diseases controlled.

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

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

PRODUCT ²	APPLICATION RATES/ACRE ¹			CROP					
	ANNUAL GRASSES	PERENNIAL GRASSES	CROP OIL CONCENTRATE (V/V) ³	Alfalfa ⁴	Cotton	Mint ^{4,5}	Peanut	Soybean	Sunflower
CLETHODIM 2E + Orthene 75S or Orthene 97	6 - 8 fl. oz. + 0.33 - 1.33 lbs. or 0.25 - 1.0 lb.	8 - 16 fl. oz. + 0.33 - 1.33 lbs. or 0.25 - 1.0 lb.	1%		x	x	x		
CLETHODIM 2E + Orthene 90 S ⁶	6 - 8 fl. oz. + 0.25 - 1.0 lb.	8 - 16 fl. oz. + 0.25 - 1.0 lb.	1%		x	x	x	x	
CLETHODIM 2E + DANITOL® 2.4 EC	6 - 8 fl. oz. + 10 ⅓ - 16 fl. oz.	8 - 16 fl. oz. + 10 ⅓ - 16 fl. oz.	1%		x		x		
CLETHODIM 2E + ASANA XL®	6 - 8 fl. oz. + See ASANA XL label.	8 - 16 fl. oz. + See ASANA XL label.	1%						x

PRODUCT ²	APPLICATION RATES/ACRE ¹			CROP					
	ANNUAL GRASSES	PERENNIAL GRASSES	CROP OIL CONCENTRATE (V/V) ³	Alfalfa ⁴	Cotton	Mint ^{4, 5}	Peanut	Soybean	Sunflower
CLETHODIM 2E + WARRIOR	6 - 8 fl. oz. + See WARRIOR label.	8 - 16 fl. oz. + See WARRIOR label.	1%						x
CLETHODIM 2E + WARRIOR	10 - 16 fl. oz. ⁷ + See WARRIOR label.	10 - 16 fl. oz. + See WARRIOR label.	1%	x					
CLETHODIM 2E + BAYTHROID	10 - 16 fl. oz. ⁷ + See BAYTHROID label.	10 - 16 fl. oz. + See BAYTHROID label.	1%	x					
CLETHODIM 2E + DIMETHOATE	10 - 16 fl. oz. ⁷ + See Dimethoate label.	10 - 16 fl. oz. + See Dimethoate label.	1%	x					
CLETHODIM 2E + LORSBAN	10 - 16 fl. oz. ⁷ + See LORSBAN label.	10 - 16 fl. oz. + See LORSBAN label.	1 - 2 pts. ⁸	x					
CLETHODIM 2E + POUNCE	10 - 16 fl. oz. ⁷ + See POUNCE label.	10 - 16 fl. oz. + See POUNCE label.	1%	x					

¹ Make a second application of CLETHODIM 2E alone - without a tank mix insecticide - according to the appropriate size and rate directions, if grass regrowth occurs or an additional flush of new grass emerges.

² Refer to CLETHODIM 2E and insecticide label for rates and weeds and insects controlled.

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

⁴ Certain insecticides can cause temporary phytotoxic symptoms on alfalfa and mint foliage.

⁵ Rates for CLETHODIM 2E for annual grass control in baby mint should be 6 - 8 fl. oz./A; minimum of 8 fl. oz./A for annual grass control in established mint and 8 - 16 fl. oz./A for perennial grass control. Add a crop oil concentrate at the rate of 1.0 - 2.0 pts./A.

⁶ Insecticide tank mix use with ORTHENE 90 S in soybeans is permitted only in a state having an approved Section 24(c) registration for ORTHENE 90 S use in soybeans.

⁷ The rate for CLETHODIM 2E for annual grass control in seedling alfalfa should be 6 - 8 fl. oz./A.

⁸ For CLETHODIM 2E plus LORSBAN tank mix, reduce the adjuvant rate down to 1.0 pt./A when the LORSBAN rate is 1.0 pt./A or higher.

FALLOW LAND DIRECTIONS FOR USE

CLETHODIM 2E can be used to control annual and perennial grasses in land that has been left fallow the previous year and on other non-producing agricultural areas. Apply CLETHODIM 2E at 6 - 8 fl. oz./A for annual grasses and 8 - 16 fl. oz./A for perennial grasses. CLETHODIM 2E can be tanked mixed with 2,4-D ester or BANVEL SGF for broad spectrum control when both grass and broadleaf weeds are the target pest. Apply a minimum of 8 fl. oz./A CLETHODIM 2E when both annual and perennial grasses occur in the same field.

- Use a minimum spray volume of 5 gallons/A for aerial applications and 15 gallons/A for ground applications.
- Make application only to actively growing grasses when the first grass reaches the recommended weed height as specified by the Use Directions for Annual and Perennial Grasses section of this label.
- Annual grasses that emerge after the CLETHODIM 2E application will not be controlled and a second application could be necessary.
- Control of perennial grasses may require more than one (1) application in non-tilled areas.
- Do not plant any crop for 30 days after application unless clethodim is registered for use on that crop.
- Do not apply to grasses that have tillered, formed seed-heads or exceeded recommended growth stage.
- Do not use flood jet nozzles.
- Do not apply to drought stressed grasses.
- Do not mow area for two (2) weeks prior to or after the CLETHODIM 2E application.

Table 17. CLETHODIM 2E IN TANK MIXES TO CONTROL ANNUAL AND PERENNIAL GRASSES IN FALLOW LAND

PRODUCT	APPLICATION RATES/ACRE ¹		CROP OIL CONCENTRATE ²	
	ANNUAL GRASSES	PERENNIAL GRASSES	GROUND	AIR
CLETHODIM 2E	6 - 8 fl. oz.	8 - 16 fl. oz.	1%	1%

+ 2,4-D ester or BANVEL SGF	+ See 2,4-D ester label for rates. or See BANVEL SGF label for rates.		
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¹ See CLETHODIM 2E label for weed height and species control. Review BANVEL SGF and 2,4-D labels for use rates, weeds controlled and crop restrictions.

² 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.

USE DIRECTIONS FOR GRASS SUPPRESSION IN NON-CROP AREAS WITH CLETHODIM 2E			
GRASS SPECIES	WEED STAGE	RATE FL. OZ./ACRE	HIGH RATE
Annual and perennial grasses that exceed height claimed for control on height chart above.	Up to and including grasses in the seed head stage.	12	16
Do not apply as part of a tank mix when applying CLETHODIM 2E for grass suppression.			
Add a crop oil concentrate at 1 qt./A by ground to the finished spray volume.			

Table 18. CLETHODIM 2E 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	
CLETHODIM 2E	10 - 12 fl. oz./A	Tall Fescue	<i>Festuca arundinacea</i>	4 to 6 inches tall (40 - 60% green-up)
ADJUVANT: CLETHODIM 2E must be applied with a crop oil concentrate at 1 qt./A, plus a spray grade ammonium sulfate (AMS) at 2.5 - 4 lbs./A.				
Recommended Mixing Order: Thoroughly mix spray grade ammonium sulfate in water, add CLETHODIM 2E, then add crop oil concentrate.				

SPECIAL APPLICATION RESTRICTIONS/PRECAUTIONS

- Burn or mow fields a minimum of 3 weeks prior to application to remove excess crop residue. Make application in the spring at 40 - 60% tall fescue green-up, prior to emergence of warm-season grasses. Do not mow area for two (2) weeks after the CLETHODIM 2E application.
- Make application in a minimum of 15 - 20 gallons water per acre at a spray pressure of 40 - 60 PSI at the nozzle. Apply using flat fan or hollow cone nozzles. Do not use flood jet nozzles.
- Make application only to fields that have warm season grasses established for two (2) years. Application of CLETHODIM 2E to emerged warm-season grasses may cause injury. Do not make applications to warm-season grasses grown for seed.
- Do not graze treated fields or feed treated forage and/or hay to livestock. Do not plant any crop for 30 days after application, unless clethodim is registered for use on that crop.
- **NOTE:** CLETHODIM 2E applications are most effective if applied when average nighttime temperatures are consistently greater than or equal to 47°F.

Table 19. CLETHODIM 2E FOR THE SUPPRESSION OF TALL FESCUE SEED-HEADS IN NON-PRODUCING AGRICULTURAL AREAS

PRODUCT	PRODUCT RATE	SUPPRESSION	APPLICATION TIMING
CLETHODIM 2E	1 1/2 - 2 fl. oz./A	Tall Fescue Seed-Heads (<i>Festuca arundinacea</i>)	(50 - 90% Tall Fescue green-up)
ADJUVANT: CLETHODIM 2E must be applied with a crop oil concentrate at 1 qt./A, plus a spray grade ammonium sulfate (AMS) at 2.5 - 4 lbs./A.			
Recommended Mixing Order: Thoroughly mix spray grade ammonium sulfate in water, add CLETHODIM 2E, then add crop oil concentrate.			
SPECIAL APPLICATION RESTRICTIONS/PRECAUTIONS • Make application at 50 - 90% tall fescue green-up. • If less tall fescue green matter is present, use the higher CLETHODIM 2E rate. • Do not mow area for two (2) weeks after the CLETHODIM 2E application. • Make application in a minimum of 15 - 20 gallons water per acre at a spray pressure of 40 - 60 PSI at the nozzle. Make application using flat fan or hollow cone nozzles. Do not use flood nozzles. • 2,4-D ester may be added to this tank mix for broadleaf control (see 2,4-D ester label for weeds controlled.) • Do not graze treated fields or feed treated forage and/or hay to livestock. Do not plant any crop for 30 days after application unless clethodim is registered for use on that crop.			

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

- Make application only to actively growing grass and broadleaf weeds at recommended height or growth stage listed on each label.
- Make application under favorable soil moisture and humidity, which exist a few days after rainfall or within seven days after irrigation.
- Tank mix applications may sometimes result in reduced grass control. Make a second application of CLETHODIM 2E as specified in the respective size and rate tables if regrowth occurs or an additional flush of new grass emerges.
- Do not tank mix CLETHODIM 2E when broadleaf weeds are tall and/or dense enough to prevent proper grass coverage.
- This tank mix may be applied post-emergence to ROUNDUP READY soybeans up through the full flowering stage. Do not make application less than 60 days before harvest.
- Severe injury or destruction will result unless contact is avoided with foliage, green stems, or fruit crops, or any desirable plants and trees, other than soybeans with ROUNDUP READY gene.
- Do not allow the CLETHODIM 2E 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 is 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 will allow spray drift to occur, such as combinations of spray pressure and nozzle type that will result in fine particles (mist) that are likely to drift.

DIRECTIONS FOR USE IN ORNAMENTALS

CLETHODIM 2E can be used for ornamental plant uses to control labeled grass weeds in greenhouse, lathhouses, shadehouses, and around outdoor ornamentals, including nurseries, parks, roadside plants, and structure landscapes.

IMPORTANT: CLETHODIM 2E successfully controls weeds in newly transplanted and established non-grassy ornamentals. Plant tolerance to CLETHODIM 2E at labeled rates has been found to be acceptable for the indicated genera and species listed below. It is recommended that the user determine if herbicide can be used safely on a few plants prior to widespread application, due to variability within species, crop growth stage, environmental conditions, and application techniques. Neither the seller nor the manufacturer of CLETHODIM 2E have investigated the safety factor to ornamental plants not listed on this label.

The following plants have shown a tolerance for CLETHODIM 2E applications:

ORNAMENTAL TREES

COMMON NAME	SCIENTIFIC NAME
Alder, Red	<i>Alnus rubra</i>
Ash	<i>Fraxinus</i> spp.
Basswood	<i>Tilia</i> spp.
Birch, European White	<i>Betula pendula</i>
Birch, River	<i>Betula nigra</i>
Birch, White	<i>Betula papyrifera</i>
Crabapple, Flowering	<i>Malus halliana</i>
Dogwood, Flowering	<i>Cornus florida</i>
Golden Chain Tree	<i>Laburnum anagyroides</i>
Maples	<i>Acer</i> spp.
Mulberry, White	<i>Morus alba</i>
Oaks	<i>Quercus</i> spp.
Olive, Wild	<i>Elaeagnus angustifolia</i>
Redbud, Eastern	<i>Cercis Canadensis</i>
Sweet Gum, American	<i>Liquidambar styraciflua</i>

GARDEN FLOWERS AND PLANTS

COMMON NAME	SCIENTIFIC NAME
Ageratum	<i>Ageratum</i> spp.
Alyssum*, Sweet	<i>Lobularia maritima</i>
Asparagus Fern	<i>Asparagus setaceus</i>
Bleeding Heart	<i>Dicentra spectabilis</i>
Cast Iron Plant	<i>Aspidistra elatior</i>
Chrysanthemum	<i>Chrysanthemum</i> spp.
Cinquefoil	<i>Potentilla</i> spp.
Coleus	<i>Coleus</i> spp.
Coralbells	<i>Heuchera sanguinea</i>
Cranesbill	<i>Geranium</i> spp.
Dahlia	<i>Dahlia</i> spp.
Daisy, Trailing African	<i>Osteospermum fruticosum</i>
Daylily	<i>Hemerocallis</i> spp.
Dusty Miller	<i>Senecio cineraria</i>
Euonymus	<i>Euonymus</i> spp.

COMMON NAME	SCIENTIFIC NAME
Gazania	<i>Gazania</i> spp.
Geranium, House	<i>Pelargonium hortorum</i>
Heather, False	<i>Cuphea hyssopifolia</i>
Hosta	<i>Hosta fortune</i>
Iris	<i>Iris</i> spp.
Jasmine Tobacco	<i>Nicotiana glauca</i>
Loosestrife	<i>Lythrum salicaria</i>
Marigold	<i>Tagetes</i> spp.
Partridgeberry	<i>Mitchella repens</i>
Petunia*	<i>Petunia hybrida</i>
Phlox	<i>Phlox</i> spp.
Pinks	<i>Dianthus</i> spp.
Portulaca	<i>Portulaca grandiflora</i>
Salvia	<i>Salvia</i> spp.
Saxifrage	<i>Saxifraga</i> spp.
Sedum	<i>Sedum</i> spp.
Selloum	<i>Philodendron selloum</i>
Snapdragon*	<i>Antirrhinum majus</i>
Sweet Flag	<i>Acorus gramineus</i>
Tickseed	<i>Coreopsis grandiflora</i>
Touch-Me-Not	<i>Impatiens</i> spp.
Verbena	<i>Verbena</i> spp.
Violet	<i>Viola</i> spp.
Yarrow, Common	<i>Achillea millefolium</i>
Zinnia	<i>Zinnia elegans</i>

*Slight foliage or flower speckling has been observed on these species.

GROUND COVERS

COMMON NAME	SCIENTIFIC NAME
Bugleweed, Carpet	<i>Ajuga reptans</i>
Ivy, English	<i>Hedera helix</i>
Japanese Spurge	<i>Pachysandra terminalis</i>
Lilyturf	<i>Liriope muscari</i>
Moneywort	<i>Lysimachia nummularia</i>
Mondo Grass, White	<i>Ophiopogon jaburan</i>
Mondo Grass, Dwarf	<i>Ophiopogon japonicus</i>
Periwinkle, Common	<i>Vinca minor</i>

SHRUBS

COMMON NAME	SCIENTIFIC NAME
Abelia	<i>Abelia</i> spp.
Anise, Purple	<i>Illicium floridanum</i>
Aucuba	<i>Aucuba</i> spp.
Azalea*	<i>Rhododendron</i> spp.
Bamboo	<i>Bambusa</i> spp.
Barberry, Japanese	<i>Berberis thunbergii</i>
Barberry, Magellan	<i>Berberis buxifolia</i>
Bayberry	<i>Myrica pensylvanica</i>
Bottlebrush	<i>Callistemon citrinus</i>
Boxwood, Common	<i>Buxus sempervirens</i>
Camellia, Common	<i>Camellia japonica</i>
Candytuft	<i>Iberis sempervirens</i>
Cleyera	<i>Cleyera japonica</i>
Coralberry	<i>Ardisia crenata</i>
Crape Myrtle	<i>Lagerstroemia indica</i>
Coyote Brush	<i>Baccharis pilularis</i>
Fig, Creeping	<i>Ficus pumila</i>
Gardenia	<i>Gardenia</i> spp.
Holly	<i>Ilex</i> spp.
Honeysuckle	<i>Lonicera</i> spp.
Indian Hawthorn	<i>Raphiolepis indica</i>
Jasmine	<i>Jasminum</i> spp.
Jasmine, Asiatic	<i>Trachelospermum asiaticum</i>
Jasmine, Star	<i>Trachelospermum jasminoides</i>
Juniper	<i>Juniperus</i> spp.

COMMON NAME	SCIENTIFIC NAME
Lantana	<i>Lantana</i> spp.
Nandina* Bamboo, Heavenly	<i>Nandinia domestica</i>
Oleander, Common	<i>Nerium oleander</i>
Oregon Grape	<i>Mahonia aquifolium</i>
Photinia	<i>Photinia</i> spp.
Pittosporum	<i>Pittosporum</i> spp.
Podocarpus	<i>Podocarpus</i> spp.
Privet	<i>Ligustrum</i> spp.
Pyracantha	<i>Pyracantha</i> spp.
Rhododendron	<i>Rhododendron</i> spp.
Rose	<i>Spiraea bumalda</i>
Sweet Olive	<i>Osmanthus fragrans</i>
Viburnum	<i>Viburnum tinus</i>
Wisteria	<i>Wisteria</i> spp.
Yellow Sage/Shrub Verbena	<i>Lantana camara</i>

*Slight foliage or flower speckling has been observed on these species.

USE DIRECTIONS FOR ANNUAL GRASSES IN ORNAMENTALS

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

GRASS SPECIES	SCIENTIFIC NAME	WEED* HEIGHT (Inches)	RATE FL. OZ./ACRE ¹	HIGHRATE ²
Barnyardgrass	<i>Echinochloa crus-galli</i>	2 - 8	8	16
Broadleaf Signalgrass	<i>Brachiaria platyphylla</i>	2 - 6	8	16
Brome				
California	<i>Bromus carinatus</i>	2 - 6	8	16
Cheat	<i>Bromus secalinus</i>	2 - 6	8	16
Downy	<i>Bromus tectorum</i>	2 - 6	8	16
Ripgut	<i>Bromus diandrus</i>	2 - 6	8	16
Canarygrass	<i>Phalaris canariensis</i>	1 - 4	8	16
Crabgrass				
Hairy	<i>Digitaria adscendens</i>	2 - 6**	8	16
Large	<i>Digitaria sanguinalis</i>	2 - 6**	8	16
Smooth	<i>Digitaria ischaemum</i>	2 - 6**	8	16
Southern	<i>Digitaria ciliaris</i>	2 - 6**	8	16
Crowfootgrass	<i>Dactyloctenium aegyptium</i>	2 - 6**	8	16
Fall Panicum	<i>Panicum dichotomiflorum</i>	2 - 8	8	16
Field Sandbur	<i>Cenchrus incertus</i>	2 - 6	8	16
Foxtail				
Giant	<i>Setaria faberi</i>	2 - 12	8	16
Green	<i>Setaria viridis</i>	2 - 8	8	16
Yellow	<i>Setaria glauca</i>	2 - 8	8	16
Goosegrass	<i>Eleusine indica</i>	2 - 6**	8	16
Itchgrass	<i>Rottboellia cochlin</i>	2 - 6	8	16
Junglerice	<i>Echinochloa colona</i>	2 - 6	8	16
Lovegrass (Stinkgrass)	<i>Eragrostis cilianensis</i>	2 - 6	8	16
Rabbitsfootgrass	<i>Polypogon monspeliensis</i>	1 - 4	8	16
Red Rice	<i>Oryza sativa</i>	1 - 3	8	16
Ryegrass				
Hardy	<i>Lolium remotum</i>	2 - 6	8	16
Italian	<i>Lolium multiflorum</i>	2 - 6	8	16
Seedling Johnsongrass	<i>Sorghum halepense</i>	4 - 10	8	16
Shattercane	<i>Sorghum bicolor</i>	6 - 18	8	16
Southwestern Cupgrass	<i>Eriochloa gracilis</i>	2 - 6	8	16
Sprangletop				
Amazon	<i>Leptochloa panicoides</i>	2 - 6	8	16
Bearded	<i>Leptochloa fascicularis</i>	2 - 6	8	16
Mexican	<i>Leptochloa uninervia</i>	2 - 6	8	16

GRASS SPECIES	SCIENTIFIC NAME	WEED* HEIGHT (Inches)	RATE FL. OZ./ACRE ¹	HIGHRATE ²
Red	<i>Leptochloa filiformis</i>	2 - 6	8	16
Texas Panicum	<i>Panicum texanum</i>	2 - 6	8	16
Volunteer Cereals				
Barley	<i>Hordeum vulgare</i>	2 - 6	8	16
Oats	<i>Avena sativa</i>	2 - 6	8	16
Rye	<i>Secale cereale</i>	2 - 6	8	16
Wheat	<i>Triticum aestivum</i>	2 - 6	8	16
Volunteer Corn	<i>Zea mays</i>	4 - 12	6	8
Volunteer Corn	<i>Zea mays</i>	12 - 24	8	16
Volunteer Grain Sorghum	<i>Sorghum bicolor</i>	8 - 12	8	16
Wild Oats	<i>Avena fatua</i>	2 - 6	8	16
Wild Proso Millet	<i>Panicum miliaceum</i>	2 - 10	8	16
Witchgrass	<i>Panicum capillare</i>	2 - 8	8	16
Woolly Cupgrass	<i>Eriochloa villosa</i>	2 - 8	8	16

* Generally occurs between 3-leaf stage and tillering.

** Length of lateral growth.

¹ 8 fl. oz./A = approximately 0.2 fl. oz./1,000 sq. ft.

² 16 fl. oz./A = approximately 0.4 fl. oz./1,000 sq. ft.

Add a nonionic surfactant containing at least 80% active ingredient at the rate of 1 pt. per 50 gallons (0.25% v/v).

USE DIRECTIONS FOR PERENNIAL GRASSES

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

GRASS SPECIES	WEED HEIGHT (Inches)	RATE FL. OZ./ACRE ¹	HIGH RATE ²
Bermudagrass (<i>Cynodon dactylon</i>)			
First Application	3 (or up to 6" runners)	8	16
Repeat Application(s) (if regrowth occurs)	3 (or up to 6" runners)	8	16
Quackgrass (<i>Elytrigia repens</i>)			
First Application	4 - 8	8	16
Repeat Application(s) (if regrowth occurs)	4 - 8	8	16
Rhizome Johnsongrass (<i>Sorghum halepense</i>)			
First Application	12 - 24	8	16
Repeat Application(s) (if regrowth occurs)	6 - 18	6	8
Wirestem Muhly (<i>Muhlenbergia frondosa</i>)			
First Application	4 - 8	8	16
Repeat Application(s) (if regrowth occurs)	4 - 8	8	16

¹ 8 fl. oz./A = approximately 0.2 fl. oz./1,000 sq. ft.

² 16 fl. oz./A = approximately 0.4 fl. oz./1,000 sq. ft.

Add a nonionic surfactant containing at least 80% active ingredient at the rate of 1 pt. per 50 gallons (0.25% v/v).

STORAGE AND DISPOSAL

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

PESTICIDE STORAGE: Store product in original container only. Store in a cool, dry place. Do not store diluted spray. Open dumping is prohibited.

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

CONTAINER HANDLING:

Containers equal to or less than 5 gallons: Nonrefillable container. Do not 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 a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling, if available, or puncture and dispose of in a sanitary landfill or by incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

Containers greater than 5 gallons: Nonrefillable container. Do not 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 a mix

tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Offer for recycling, if available, or puncture and dispose of in a sanitary landfill or by incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

REFILLABLE CONTAINERS: Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. 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, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

IMPORTANT INFORMATION READ BEFORE USING PRODUCT

CONDITIONS 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.

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