



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, DC 20460**

**OFFICE OF CHEMICAL SAFETY  
AND POLLUTION PREVENTION**

March 28, 2023

Arianna Shorey  
Regulatory Consultant  
UPL NA, Inc.  
c/o Pyxis Regulatory Consulting Inc.  
4110 136th St. Ct. NW  
Gig Harbor, WA 98332

**Subject:** PRIA Label Amendment – Add already approved clethodim uses to label  
**Product Name:** CLETHODIM 2EC HERBICIDE2  
**EPA Registration Number:** 70506-484  
**Application Date:** June 18, 2021  
**Decision Number:** 576639

Dear Arianna Shorey:

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

A stamped copy of your labeling is enclosed for your records. This labeling supersedes all previously accepted labeling. You must submit one copy of the final printed labeling before you release the product for shipment with the new labeling. In accordance with 40 CFR 152.130(c), you may distribute or sell this product under the previously approved labeling for 18 months from the date of this letter. After 18 months, you may only distribute or sell this product if it bears this new revised labeling or subsequently approved labeling. “To distribute or sell” is defined under FIFRA section 2(gg) and its implementing regulation at 40 CFR 152.3.

Should you wish to add/retain a reference to the company’s website on your label, then please be aware that the website becomes labeling under FIFRA and is subject to review by the Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 CFR 156.10(a)(5) lists examples of statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product’s label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the Agency find or if it is brought to our attention that a website contains false or misleading statements or claims


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substantially differing from the EPA approved registration, the website will be referred to the EPA's Office of Enforcement and Compliance.

Your release for shipment of the product constitutes acceptance of these conditions. If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6.

If you have any questions, please contact Francisco Llarena-Arias via email at [llarena-arias.francisco@epa.gov](mailto:llarena-arias.francisco@epa.gov).

Sincerely,



Heather McFarley  
Product Manager 24  
Fungicide and Herbicide Branch  
Registration Division (7505P)  
Office of Pesticide Programs

Enclosure:

- Stamped label

{Note to reviewer: [Text] in brackets denotes optional text. {Text} in braces denotes where in the final label text will appear and notes to reviewer.}

CLETHODIM	GROUP	1	HERBICIDE
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# CLETHODIM 2EC Herbicide2

[ALTERNATE BRAND NAME: SHADOW® HERBICIDE, TRIZENTA HERBICIDE]

ACTIVE INGREDIENT:	% BY WT.
*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: 2.1 lb Clethodim per gallon

## KEEP OUT OF REACH OF CHILDREN WARNING / AVISO

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.)

See [front][back][side][inside] panel for First Aid Instructions and [Leaflet][Booklet] for complete  
Precautionary Statements and Directions for Use.

FIRST AID	
<b>IF IN EYES:</b>	<ul style="list-style-type: none"> <li>Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li> <li>Remove contact lenses, if present, after the first 5 minutes, then continue rinsing.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>
<b>IF ON SKIN OR CLOTHING:</b>	<ul style="list-style-type: none"> <li>Take off contaminated clothing.</li> <li>Rinse skin immediately with plenty of water for 15-20 minutes.</li> <li>Call a poison control center or doctor for further treatment advice.</li> </ul>
<b>IF SWALLOWED:</b>	<ul style="list-style-type: none"> <li>Immediately call a poison control center or doctor.</li> <li><b>DO NOT</b> induce vomiting unless told to do so by a poison control center or doctor.</li> <li><b>DO NOT</b> give any liquid to the person.</li> <li><b>DO NOT</b> give anything by mouth to an unconscious person.</li> </ul>
<b>IF INHALED:</b>	<ul style="list-style-type: none"> <li>Move person to fresh air.</li> <li>If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible.</li> <li>Call a poison control center or doctor for treatment advice</li> </ul>
<p><b>NOTE TO PHYSICIAN:</b> Ingestion of this product or subsequent vomiting can result in aspiration of light hydrocarbon liquid, which can cause pneumonitis. If ingested, probable mucosal damage may contraindicate the use of gastric lavage.</p>	
<p>Have the product container or label with you when calling a poison control center or doctor, or going for treatment.</p> <p><b>FOR 24-HOUR MEDICAL EMERGENCY ASSISTANCE CALL Rocky Mountain Poison and Drug Safety:</b> 1-866-673-6671.</p> <p><b>FOR 24-HOUR CHEMICAL EMERGENCY (Spill, leaks, fire, exposure or accident) CALL CHEMTREC:</b> 1-800-424-9300 or +1-703-527-3887.</p>	

For Product Use Information Call 1-800-438-6071

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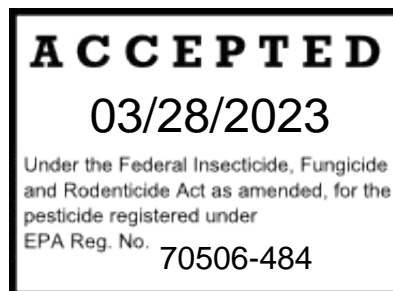
[Batch Code will be placed on the container.]

Produced For:

UPL NA, Inc.

630 Freedom Business Center, Suite 402

King of Prussia, PA 19406



EPA Est. No.:

NET CONTENTS:

## PRECAUTIONARY STATEMENTS

### HAZARDS TO HUMANS & DOMESTIC ANIMALS

**WARNING:** Causes substantial but temporary eye irritation. Avoid contact with skin. **DO NOT** get in eyes, on clothing or on skin. Harmful if swallowed or inhaled. Avoid breathing vapors or spray mist. Prolonged or frequent repeated skin contact may cause allergic reactions in some individuals.

### PERSONAL PROTECTIVE EQUIPMENT (PPE)

**Applicators and other handlers must wear:**

- Long-sleeved shirt and long pants;
- Chemical-resistant gloves made of any waterproof material (Barrier Laminate and/or Viton  $\geq$  14 mils);
- Shoes plus socks; and
- Protective eyewear.

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

### User Safety Requirements

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 hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and change into 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 STATEMENT

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 any waterproof material (Barrier Laminate and/or Viton  $\geq$  14 mils);
- Shoes plus socks; and
- 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, forests, 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.

### GENERAL INFORMATION

This product is a selective postemergence herbicide for control of annual and perennial grasses. **CLETHODIM 2EC Herbicide2** does not control sedges or broadleaf weeds and is not for use on vegetable crops being grown for seed production unless specific instructions are included in this labeling.

Repeated use of **CLETHODIM 2EC Herbicide2** (or similar postemergence 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. Biotypes are naturally occurring individuals of a species that are identical in appearance but have slightly different genetic compositions; the mode of action of an herbicide is the chemical interaction that interrupts a biological process necessary for plant growth and development.

If poor performance occurs and cannot be attributed to adverse weather or application conditions, a resistant biotype may be present. Where other control strategies, including crop rotation, mechanical removal, and other classes of herbicides are not used in fields from year to year, this is most likely to occur.

Avoid contact of this product with desirable grass crops, including, corn, rice, sorghum, small grains, or turf as these and other grass crops will be injured or killed. Minor leaf spotting can 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.

### RESTRICTIONS

- Aerial applications for all tree fruits and tree nuts uses are prohibited.
- **DO NOT** apply if rain is expected within 1 hour of application, as control may be unsatisfactory.
- **DO NOT** apply a postemergence broadleaf herbicide within one day following application of **CLETHODIM 2EC Herbicide2** or reduced grass control may result.
- **DO NOT** apply under conditions of stress. Applying **CLETHODIM 2EC Herbicide2** under conditions that do not promote active grass growth will reduce herbicide effectiveness. These conditions include, drought, excessive water, low humidity and extremes in temperature, and grasses either partially controlled or stunted from prior pesticide applications. Grasses under these kinds of stressful conditions will not absorb and translocate **CLETHODIM 2EC Herbicide2** effectively, and will be less susceptible to herbicide activity.
- [Application on Long Island, New York is restricted to no more than 14.8 fl oz (0.242 lb ai) of **CLETHODIM 2EC Herbicide2** per acre per year.]

- **DO NOT** plant rotational crops until 30 days after application of **CLETHODIM 2EC Herbicide2** unless the crop is listed on the **CLETHODIM 2EC Herbicide2** label.

## PRECAUTIONS

- See “CROP SPECIFIC INSTRUCTIONS AND RESTRICTIONS” table for crop specific application rates and restrictions.
- It is the pesticide user’s responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.
- Tank-mixes of **CLETHODIM 2EC Herbicide2** and broadleaf herbicides may result in reduced grass control. If grass regrowth occurs, an additional application of this product may be necessary.
- This product is not advised for use on vegetable crops being grown for seed production unless specific use directions are provided.
- While all the vegetable crops on this label have been tested and are resistant to **CLETHODIM 2EC Herbicide2**, not all specialty varieties of these crops have been tested. Before applying **CLETHODIM 2EC Herbicide2** to specialty varieties of vegetable crops on this label, it is advised that crop resistance 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.
- Optimal perennial grass control can be obtained if rhizomes or stolons are cut up by preplant tillage practices (disking, plowing, etc.) to stimulate maximum emergence of grass shoots. Cultural practices, including continuous no-tillage in which the perennial grass rhizomes or stolons are not cut up, result in a very staggered, non-uniform weed emergence. No fewer than two (2) **CLETHODIM 2EC Herbicide2** applications per year are advised at the appropriate weed-growth stage rate under continuous no-till conditions, due to this non-uniform weed emergence.
- Grass crops including, corn, rice, sorghum, small grains, or turf, etc. are highly sensitive to **CLETHODIM 2EC Herbicide2**.

## HERBICIDE RESISTANCE MANAGEMENT

For resistance management, Clethodim 2EC Herbicide2 is a Group 1 herbicide. Any weed population may contain or develop plants naturally resistant to Clethodim 2EC Herbicide2 and other Group 1 herbicides. Weed species with acquired resistance to Group 1 may eventually dominate the weed population if Group 1 herbicides are used repeatedly in the same field. Appropriate resistance-management strategies should be followed.

To delay herbicide resistance, take one or more of the following steps:

- Rotate the use of Clethodim 2EC Herbicide2 or other Group 1 herbicides within a growing season sequence or among growing seasons with different herbicide groups that control the same weeds in a field. Whenever possible incorporate multiple weed control practices including mechanical cultivation, biological management practices, and crop rotation.
- Use tank mixtures with herbicides from a different group if such use is permitted; where information on resistance in target weed species is available, use the less resistance-prone partner at a rate that will control the target weed(s) equally as well as the more resistance-prone partner. Consult your local extension service or certified crop advisor if you are unsure as to which active ingredient is currently less prone to resistance.
- Adopt an integrated weed-management program for herbicide use that includes scouting and uses historical information related to herbicide use and crop rotation, and that considers tillage (or other mechanical control methods), cultural (e.g. higher crop seeding rates; precision fertilizer application method and timing to favor the crop and not the weeds), biological (weed-competitive crops or varieties) and other management practices.
- Scout fields before application to identify the weed species present and their growth stage to determine if the intended application will be effective. Scout after herbicide application to monitor weed populations for early signs of resistance development. Indicators of possible herbicide resistance include: (1) failure to control a weed species normally controlled by the herbicide at the dose applied, especially if control is achieved on adjacent weeds; (2) a spreading patch of non-controlled plants of a particular weed species; (3) surviving plants mixed with controlled individuals of the same species. If resistance is suspected, prevent weed seed production in the affected area by an alternative herbicide from a different group or by a mechanical method including hoeing or tillage. Prevent movement of resistant weed seeds to other fields by cleaning harvesting and tillage equipment when moving between fields, and planting clean seed.
- If a weed pest population continues to progress after treatment with this product, discontinue use of this product and switch to another management strategy or herbicide with a different mode of action (MOA), if available. Treat weed escapes with an herbicide with a different MOA or use non-chemical methods to remove escapes. To the extent possible **DO NOT** allow weed escapes to produce seeds, roots, or tubers.

- Contact your local sales representative, crop advisor, or extension agent 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. Contact UPL NA at 1-800-438-6071.

## APPLICATION INFORMATION

### Timing

Make application of **CLETHODIM 2EC Herbicide2** postemergence to actively growing grasses according to the rate table specifications. **DO NOT** make application to grass plants stressed by insufficient moisture or hot or cold temperature. Applications to grass plants exceeding specified growth stages may result in unsatisfactory control. **DO NOT** make applications when this occurs.

When irrigation is used to supplement limited rainfall in arid regions, apply **CLETHODIM 2EC Herbicide2** as soon as possible, after an 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 SPECIFICATIONS
<b>Alfalfa; Clover; Corn, Field; Cotton; Fallow Land (and other non-producing agricultural areas); Mint (peppermint, tops and spearmint, tops); Peanuts; Potatoes; Soybeans; Sugar beets; Sunflower [(Crop Group 20B)]</b>	Unless otherwise specified*, 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. Alternatively, 0.25% v/v of non-ionic surfactant (NIS) may be used.**  1-to-2 qt/A liquid fertilizer (10-34-0, 28% N or 32% N) or an equivalent amount of spray grade ammonium sulfate (AMS) (2.5 to 4.0 lb/A) may be added to <b>CLETHODIM 2EC Herbicide2</b> applications in addition to the specified rate of crop oil concentrate or NIS. 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.
<b>Artichoke (Globe); Beans &amp; Peas, Dry Shelled [(Crop Group 6C)]; Beans, Succulent Shelled [(Crop Group 6B)]; Brassica, Head and Stem [(Crop Group 5-16)]; Brassica, Leafy Greens (except radish (leaves), turnip (greens), watercress); Crop Group 4-16B]; Bushberries [(Crop Group 13-07B)]; Caneberries [(Crop Group 13-07A)]; Canola; Carrot; Cranberry; Flax; Fruiting Vegetables (except tomato, okra); Crop Group 8-10]; Garden Beets; Herbs [(Crop Group 19A)]; Hops; Head and Stem Leafy Greens [(Crop Group 4-16A)]; Leaf Petioles [(Crop Group 22B)]; Edible Podded Legume Vegetables [(Crop Group 6A)]; Melons [(Crop Group 9A)]; Mustard Seed; Mustard Spinach; Okra; Onions, Dry Bulb [(Crop Group 3-07A)]; Onions, Green [(Crop Group 3-07B)]; Radishes and Radish Leaves; Root Vegetables (except carrot, garden beet, radish, sugar beet); Crop Group 1B]; Safflower; Sesame; Squash/Cucumber [(Crop Group 9B)]; Stalk and Stem Vegetables [(Crop Group 22A)]; Strawberries; Tomatoes; Tuberos and Corm Vegetables (except potato); Crop Group 1C]; Turnip Greens; Watercress</b>	Add a nonionic surfactant containing at least 80% active ingredient at the rate of 1 pint per 50 gallons (0.25% v/v). <b>DO NOT</b> add a liquid fertilizer for these crops.

<b>Berry, Low Growing (except cranberry, strawberry [; Crop Group 13-07G]); Pome Fruit [(Crop Group 11-10)]; Stevia (dried leaves); Stone Fruit [(Crop Group 12-12)]; Tree Nuts [(Crop Group 14-12)]; Conifer Trees; Ornamental Plants and Non-Bearing Fruit and Nut Crops</b>	Add a nonionic surfactant containing at least 80% active ingredient at the rate of 1 pint per 50 gallons (0.25% v/v). <b>DO NOT</b> use a crop oil concentrate as it could injure flowers and foliage.
<b>Non-Crop or Non-Planted Areas</b>	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.

\* For clover and field corn **DO NOT** use a crop oil concentrate.

\*\* Non-ionic surfactant (NIS) in this case refers to an adjuvant containing at least 80% non-ionic surfactant. Crop oil concentrate in this case refers to both crop oil concentrate and crop oil concentrate blends. Acceptable crop oil concentrates would be those that contain a minimum of 80% oils and 15% emulsifier. Acceptable crop oil concentrate blends would be those that contain a minimum of 60% oils and 25-40% surfactants and emulsifiers. 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. This product may be applied to seedling or established alfalfa grown for seed, hay, silage, green chop or direct grazing.

The use of adjuvants can increase crop injury of tank-mix partners. Consult the tank-mix partner label for further guidance.

When an adjuvant is to be used with this product, UPL NA Inc. advises the use of a Chemical Producers and Distributors Association certified adjuvant.

### GROUND APPLICATION

To ensure complete coverage, it is essential to use sufficient spray volumes and pressure. Use a minimum of 5 gallons and a maximum of 40 gallons of spray solution per acre. A minimum of 10 gallons per acre is required under the following conditions: ultra-narrow row cotton, narrow row soybeans, broadleaf herbicide tank-mixes, perennial grasses, volunteer corn, drought or stress conditions, heavy grass pressure or when grasses are at or near maximum height. Failure to use a minimum of 10 gallons per acre under these conditions can result in poor coverage and reduced grass control requiring repeat application. Ensure spray pressures reflects a minimum of 30 psi and a maximum of 60 psi at the nozzle. **DO NOT** use flood nozzles.

Apply a minimum application of 20 gallons of spray solution per acre to onions (dry bulbs and green), garlic and shallots (dry bulbs and green).

### AIR APPLICATION

Use a minimum of 3 gallons of spray solution per acre unless otherwise directed in this label. If grass or crop foliage becomes dense, increase spray volumes up to 10 gallons.

For onions (dry bulbs and green), garlic or shallots (dry bulbs and green): **DO NOT** exceed 7.4 fl oz (0.121 lb ai)/A in a single application when applying by air. [In California when applying by air to onions, make garlic or shallots applications in a minimum of 20-gallon spray solution per acre.]

NOTE: Crop injury can occur when this product 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 2EC Herbicide2** is applied as a spot treatment, **DO NOT** exceed the maximum rate allowed on a "per acre" basis or crop injury could occur.

### CHEMIGATION – ONIONS (Dry Bulbs and Green) AND GARLIC

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.



## **SPRINKLER IRRIGATION APPLICATION**

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

Apply **CLETHODIM 2EC Herbicide2** at the high rate specified for annual grasses (14.8 fl oz; 0.242 lb ai) 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 2EC Herbicide2** in 0.1 to 0.2 acre-inch of water, either at the end of a regular irrigation set or as a separate application not associated with a regular irrigation using the least amount of water that provides proper distribution and coverage. Application of more than label specified quantities of irrigation water per acre may result in decreased product performance by removing the chemical from the zone of effectiveness. Use a metering device to inject the **CLETHODIM 2EC Herbicide2** 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.

### **General 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, 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.

### **Sprinkler Chemigation Precautions**

1. 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.
2. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
3. 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.
4. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
5. 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.
6. Systems must use a metering pump; 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.
7. **DO NOT** apply when wind speed favors drift beyond the area intended for treatment.

### **Chemigation Systems Connected to Public Water Systems**

1. 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 regular serves an average of at least 25 individuals daily at least 60 days out of the year.
2. Chemigation systems connected to public water systems must contain a functional, reduced-pressure zone, back flow preventer (RPZ) or the functional equivalent in the water supply line upstream from the point of pesticide introduction. As an option to the RPZ, the water from the public water system must be discharged into a reservoir tank prior to pesticide introduction. There shall be a complete physical break (air gap) between the flow outlet end of the fill pipe and the top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe.
3. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection.

4. The pesticide injection pipeline must 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.
5. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops, or in cases where there is no water pump, when the water pressure decreases to the point where pesticide distribution is adversely affected.
6. Systems must use a metering pump; 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.
7. **DO NOT** apply when wind speed favors drift beyond the area intended for treatment.

## **SPRAY DRIFT**

### **Aerial Applications:**

- **DO NOT** release spray at a height greater than 10 ft 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 1/2 swath displacement upwind at the downwind edge of the field.
- Nozzles must be oriented so the spray is directed toward the back of the aircraft.
- **DO NOT** apply when wind speeds exceed 10 miles per hour at the application site.
- **DO NOT** apply during temperature inversions.

### **Ground Boom Applications:**

- 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 nozzles 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 the potential for spray drift.

**SHIELDED SPRAYERS**

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

**TEMPERATURE AND HUMIDITY**

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

**TEMPERATURE INVERSIONS**

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

**WIND**

Drift potential generally increases with wind speed. AVOID APPLICATIONS DURING GUSTY WIND CONDITIONS.

Applicators need to be familiar with local wind patterns and terrain that could affect spray drift.

## CROP SPECIFIC USE INSTRUCTIONS AND RESTRICTIONS FOR CLETHODIM 2EC Herbicide<sup>2</sup>

CROPS <sup>(1)</sup>	APPLICATION TIMING AND PRE-HARVEST INTERVAL (PHI)	USE RATES PER ACRE <sup>(2)</sup>	ADJUVANT RATES PER ACRE <sup>(3)</sup>	SPECIAL USE INSTRUCTIONS
<b>Alfalfa Established<sup>(5)</sup></b> <i>including:</i> Birdsfoot trefoil Holy Clover Sainfoin	15 days before grazing, feeding or harvesting (cutting) for forage or hay.	<b>Annual Grasses:</b> 5.5-7.4 fl oz (0.091-0.121 lb ai)  <b>Perennial Grasses:</b> 5.5-14.8 fl oz (0.091-0.242 lb ai)	<b>Non-Ionic Surfactant:</b> 0.25% v/v OR <b>Crop Oil Concentrate/ Methylated Seed Oil:</b> 1 qt/A or 1% v/v + <b>Ammonium Sulfate<sup>(4)</sup>:</b> 2.5-4 lb/A	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. Refer to tank mix partners for specific directions and restrictions. <b>RESTRICTIONS:</b> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 14.8 fl oz (0.242 lb ai) per acre per application.</li> <li>• For annual grasses, <b>DO NOT</b> apply more than 4 applications per year.</li> <li>• For perennial grasses, <b>DO NOT</b> apply more than 2 applications per year.</li> <li>• <b>DO NOT</b> apply more than 29.6 fl oz (0.485 lb ai) per acre per year.</li> <li>• <b>DO NOT</b> make repeat applications less than 14-days apart.</li> <li>• <b>DO NOT</b> apply <b>CLETHODIM 2EC Herbicide<sup>2</sup></b> and 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.</li> </ul>
<b>Alfalfa Seedling<sup>(5)</sup></b>	15 days before grazing, feeding or harvesting (cutting) for forage or hay.	<b>Annual Grasses:</b> 4.2-7.4 fl oz (0.068-0.121 lb ai)  <b>Perennial Grasses:</b> 5.5-14.8 fl oz (0.091-0.242 lb ai)	<b>Non-Ionic Surfactant:</b> 0.25% v/v OR <b>Crop Oil Concentrate/ Methylated Seed Oil:</b> 1 qt/A or 1% v/v + <b>Ammonium Sulfate<sup>(4)</sup>:</b> 2.5-4 lb/A	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. Refer to tank mix partners for specific directions and restrictions. <b>RESTRICTIONS:</b> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 14.8 fl oz (0.242 lb ai) per acre per application.</li> <li>• <b>DO NOT</b> apply more than 2 applications per year.</li> <li>• <b>DO NOT</b> apply more than 29.6 fl oz (0.485 lb ai) per acre per year.</li> <li>• <b>DO NOT</b> make repeat applications less than 14-days apart.</li> <li>• <b>DO NOT</b> apply <b>CLETHODIM 2EC Herbicide<sup>2</sup></b> and 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.</li> </ul>
<b>Artichoke (Globe)[*]</b>  [*Not for use in [California][CA].]	5 days	<b>Annual Grasses:</b> 4.1-7.4 fl oz (0.068-0.121 lb ai)  <b>Perennial Grasses:</b> 5.5-7.4 fl oz (0.091-0.121 lb ai)	<b>Non-Ionic Surfactant:</b> 0.25% v/v	<b>RESTRICTIONS:</b> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 7.4 fl oz (0.121 lb ai) per acre per application.</li> <li>• <b>DO NOT</b> apply more than 4 applications per year.</li> <li>• <b>DO NOT</b> apply more than 29.6 fl oz (0.485 lb ai) per acre per year.</li> <li>• <b>DO NOT</b> make repeat applications less than 14-days apart.</li> </ul>

**CROP SPECIFIC USE INSTRUCTIONS AND RESTRICTIONS FOR CLETHODIM 2EC Herbicide<sup>2</sup>**

CROPS <sup>(1)</sup>	APPLICATION TIMING AND PRE-HARVEST INTERVAL (PHI)	USE RATES PER ACRE <sup>(2)</sup>	ADJUVANT RATES PER ACRE <sup>(3)</sup>	SPECIAL USE INSTRUCTIONS
<p><b>Beans, Dry Shelled [(Crop Group 6C)]</b>  <i>including:</i>                      Bean (<i>Lupinus</i> spp.)                      Grain                      Sweet                      White                      White Sweet                      Bean (<i>Phaseolus</i> spp.)                      Field                      Kidney                      Lima (dry)                      Navy                      Pinto                      Tepary                      Bean (<i>Vigna</i> spp.)                      Adzuki Bean                      Black-eyed Pea                      Catjang                      Cowpea                      Crowder Pea                      Moth Bean                      Mung Bean                      Rice Bean                      Southern Pea                      Urd Bean                      Broad (dry) Bean                      Chickpea (garbanzo)                      Guar                      Lablab Bean                      Lentil</p>	<p align="center">30 days</p>	<p><b>Annual Grasses:</b>                      4.1-7.4 fl oz                      (0.068-0.121 lb ai)</p> <p><b>Perennial Grasses:</b>                      5.5-14.8 fl oz                      (0.091-0.242 lb ai)</p>	<p><b>Non-Ionic Surfactant:</b>                      0.25% v/v</p>	<p>For reduced rates for the control of small annual grasses, refer to the appropriate Table.</p> <p>Refer to tank mix partners for specific directions and restrictions.</p> <p><b>RESTRICTIONS:</b></p> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 14.8 fl oz (0.242 lb ai) per acre per application.</li> <li>• For annual grasses, <b>DO NOT</b> make more than 4 applications per year.</li> <li>• For perennial grasses, <b>DO NOT</b> make more than 2 applications per year.</li> <li>• <b>DO NOT</b> apply more than 29.6 fl oz (0.485 lb ai) per acre per year.</li> <li>• For Reduced Rate Control for Small Annual Grasses: <b>DO NOT</b> make more than 4 applications at 3.7 fl oz (0.061 lb ai) per acre per year. [(Not approved for this use in [California][CA].)]</li> <li>• <b>DO NOT</b> make repeat applications less than 14-days apart.</li> </ul>
<p><b>Bean, Succulent Shelled [(Crop Group 6B)]</b>  <i>including:</i>                      Bean (<i>Phaseolus</i> spp.)                      Lima Bean (green)                      Broad Bean (succulent)                      Bean (<i>Vigna</i> spp.)                      Black-eyed Pea                      Cowpea                      Southern Pea</p>	<p align="center">21 days</p>	<p><b>Annual Grasses:</b>                      4.1-7.4 fl oz                      (0.068-0.121 lb ai)</p> <p><b>Perennial Grasses:</b>                      5.5-7.4 fl oz                      (0.091-0.121 lb ai)</p>	<p><b>Non-Ionic Surfactant:</b>                      0.25% v/v</p>	<p>For reduced rates for the control of small annual grasses, refer to the appropriate Table.</p> <p>Refer to tank mix partners for specific directions and restrictions.</p> <p><b>RESTRICTIONS:</b></p> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 7.4 fl oz (0.121 lb ai) per acre per application.</li> <li>• <b>DO NOT</b> apply more than 1 application per year.</li> <li>• <b>DO NOT</b> apply more than 7.4 fl oz (0.121 lb ai) per acre per year.</li> <li>• For Reduced Rate Control for Small Annual Grasses: <b>DO NOT</b> make more than 2 applications at 3.7 fl oz (0.061 lb ai) per acre per year. [(Not approved for this use in [California][CA].)]</li> </ul>

**CROP SPECIFIC USE INSTRUCTIONS AND RESTRICTIONS FOR CLETHODIM 2EC Herbicide2**

CROPS <sup>(1)</sup>	APPLICATION TIMING AND PRE-HARVEST INTERVAL (PHI)	USE RATES PER ACRE <sup>(2)</sup>	ADJUVANT RATES PER ACRE <sup>(3)</sup>	SPECIAL USE INSTRUCTIONS
<p><b>Berry, Low Growing (except cranberry, strawberry) [(Crop Group 13-07G)]</b>  <i>including:</i>                      Bearberry                      Bilberry                      Blueberry, lowbush                      Cloudberry                      Lingonberry                      Muntries                      Partridgeberry                      Cultivars, varieties and/or hybrids of these commodities.</p>	<p align="center">45 days</p>	<p><b>Annual Grasses:</b>                      4.1-7.4 fl oz                      (0.068-0.121 lb ai)</p> <p><b>Perennial Grasses:</b>                      5.5-7.4 fl oz                      (0.091-0.121 lb ai)</p>	<p><b>Non-Ionic Surfactant:</b>                      0.25% v/v</p>	<p>Verify Crop safety to <b>CLETHODIM 2EC Herbicide2</b> on a small area of the crop, at the desired <b>CLETHODIM 2EC Herbicide2</b> rate and with the same Non-ionic Surfactant (NIS) that will be used on the field. If no crop response is evident 7 days after treatment, <b>CLETHODIM 2EC Herbicide2</b> may be used on the entire field at the rate tested and with the same NIS used in the crop safety test.</p> <p><b>RESTRICTIONS:</b></p> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 7.4 fl oz (0.121 lb ai) per acre per application.</li> <li>• <b>DO NOT</b> apply more than 4 applications per year.</li> <li>• <b>DO NOT</b> apply more than 29.6 fl oz (0.485 lb ai) per acre per year.</li> <li>• <b>DO NOT</b> make repeat applications less than 14-days apart.</li> <li>• <b>DO NOT</b> use a crop oil concentrate as injury to flower and foliage may occur.</li> </ul>
<p><b>Brassica, Head &amp; Stem Vegetables [(Crop Group 5-16)][*]</b>  <i>including:</i>                      Broccoli                      Brussels Sprouts                      Cabbage                      Chinese (Napa) Cabbage                      Cauliflower                      Cultivars, varieties and/or hybrids of these commodities.                      [*Not for use in [California][CA].]</p>	<p align="center">30 days</p>	<p><b>Annual Grasses:</b>                      4.1-7.4 fl oz                      (0.068-0.121 lb ai)</p> <p><b>Perennial Grasses:</b>                      5.5-7.4 fl oz                      (0.091-0.121 lb ai)</p>	<p><b>Non-Ionic Surfactant:</b>                      0.25% v/v</p>	<p><b>RESTRICTIONS:</b></p> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 7.4 fl oz (0.121 lb ai) per acre per application.</li> <li>• <b>DO NOT</b> apply more than 4 applications per year.</li> <li>• <b>DO NOT</b> apply more than 29.6 fl oz (0.485 lb ai) per acre per year.</li> <li>• <b>DO NOT</b> make repeat applications less than 14-days apart.</li> </ul>

**CROP SPECIFIC USE INSTRUCTIONS AND RESTRICTIONS FOR CLETHODIM 2EC Herbicide2**

CROPS <sup>(1)</sup>	APPLICATION TIMING AND PRE-HARVEST INTERVAL (PHI)	USE RATES PER ACRE <sup>(2)</sup>	ADJUVANT RATES PER ACRE <sup>(3)</sup>	SPECIAL USE INSTRUCTIONS
<p><b>Brassica, Leafy Greens (except radish (leaves), turnip (greens), watercress) [(Crop Group 4-16B)][*]</b>  <i>including:</i>                      Arugula                      Broccoli, Chinese                      Broccoli Raab                      Cabbage, Abyssinian                      Cabbage, Chinese (Bok Choy)                      Cabbage, Seakale                      Collards                      Cress, Garden                      Cress, Upland                      Hanover Salad                      Kale                      Maca (leaves)                      Mizuna                      Mustard Greens                      Rape Greens                      Rocket, Wild                      Shepherd's Purse                      Cultivars, varieties and/or hybrids of these commodities.                      [*Not for use in [California][CA].]</p>	<p align="center">14 days</p>	<p><b>Annual Grasses:</b>                      4.1-7.4 fl oz                      (0.068-0.121 lb ai)</p> <p><b>Perennial Grasses:</b>                      5.5-7.4 fl oz                      (0.091-0.121 lb ai)</p>	<p><b>Non-Ionic Surfactant:</b>                      0.25% v/v</p>	<p><b>RESTRICTIONS:</b></p> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 7.4 fl oz (0.121 lb ai) per acre per application.</li> <li>• <b>DO NOT</b> apply more than 4 applications per year.</li> <li>• <b>DO NOT</b> apply more than 29.6 fl oz (0.485 lb ai) per acre per year.</li> <li>• <b>DO NOT</b> make repeat applications less than 14-days apart.</li> </ul>

## CROP SPECIFIC USE INSTRUCTIONS AND RESTRICTIONS FOR CLETHODIM 2EC Herbicide<sup>2</sup>

CROPS <sup>(1)</sup>	APPLICATION TIMING AND PRE-HARVEST INTERVAL (PHI)	USE RATES PER ACRE <sup>(2)</sup>	ADJUVANT RATES PER ACRE <sup>(3)</sup>	SPECIAL USE INSTRUCTIONS
<p><b>Bushberry [(Crop Group 13-07B)][*]</b>  <i>including:</i>                      Aronia Berry                      Blueberry, Highbush                      Chilean Guava                      Cranberry, Highbush                      Currant, Black                      Currant, Buffalo                      Currant, Native                      Currant, Red                      Elderberry                      European Barberry                      Gooseberry                      Honeysuckle, Edible                      Huckleberry                      Jostaberry                      Juneberry (Saskatoon Berry)                      Salal                      Sea Buckthorn                      Cultivars, varieties and/or hybrids of these commodities.                      [*Not for use in [California][CA].]</p>	<p style="text-align: center;">14 days</p>	<p><b>Annual Grasses:</b>                      4.1-7.4 fl oz                      (0.068-0.121 lb ai)</p> <p><b>Perennial Grasses:</b>                      5.5-7.4 fl oz                      (0.091-0.121 lb ai)</p>	<p><b>Non-Ionic Surfactant:</b>                      0.25% v/v</p>	<p>Refer to tank mix partners for specific directions and restrictions.                      Direct the application towards the base of the plant to avoid contact with leaf tissue. Contact with the upper portions of the plant can result in crop injury.</p> <p><b>RESTRICTIONS:</b></p> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 7.4 fl oz (0.121 lb ai) per acre per application.</li> <li>• <b>DO NOT</b> apply more than 4 applications per year.</li> <li>• <b>DO NOT</b> apply more than 29.6 fl oz (0.485 lb ai) per acre per year.</li> <li>• <b>DO NOT</b> make repeat applications less than 14-days apart.</li> <li>• <b>DO NOT</b> apply for Bushberry grown for root stock.</li> </ul>
<p><b>Caneberry [(Crop Group 13-07A)][*]</b>  <i>including:</i>                      Blackberry                      Loganberry                      Raspberry, Red                      Raspberry, Black                      Wild Raspberry                      Cultivars, varieties and/or hybrids of these commodities.                      [*Not for use in [California][CA].]</p>	<p style="text-align: center;">7 days</p>	<p><b>Annual Grasses:</b>                      4.1-7.4 fl oz                      (0.068-0.121 lb ai)</p> <p><b>Perennial Grasses:</b>                      5.5-7.4 fl oz                      (0.091-0.121 lb ai)</p>	<p><b>Non-Ionic Surfactant:</b>                      0.25% v/v</p>	<p>Refer to tank mix partners for specific directions and restrictions.                      Direct the application towards the base of the plant to avoid contact with leaf tissue. Contact with the upper portions of the plant can result in crop injury.</p> <p><b>RESTRICTIONS:</b></p> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 7.4 fl oz (0.121 lb ai) per acre per application.</li> <li>• <b>DO NOT</b> apply more than 4 applications per year.</li> <li>• <b>DO NOT</b> apply more than 29.6 fl oz (0.485 lb ai) per acre per year.</li> <li>• <b>DO NOT</b> make repeat applications less than 14-days apart.</li> <li>• <b>DO NOT</b> apply for Caneberry grown for root stock.</li> </ul>



**CROP SPECIFIC USE INSTRUCTIONS AND RESTRICTIONS FOR CLETHODIM 2EC Herbicide<sup>2</sup>**

CROPS <sup>(1)</sup>	APPLICATION TIMING AND PRE-HARVEST INTERVAL (PHI)	USE RATES PER ACRE <sup>(2)</sup>	ADJUVANT RATES PER ACRE <sup>(3)</sup>	SPECIAL USE INSTRUCTIONS
<p><b>Canola [(Rapeseed)] (except flax seed, mustard seed, sesame seed[; Crop Group 20A])[*]</b>  <i>including:</i>                      Borage                      Crambe                      Cuphea                      Echium                      Gold of Pleasure [(Camelina)]                      Hare's Ear Mustard                      Lesquerella                      Lunaria                      Meadowfoam                      Milkweed                      Oil Radish                      Poppy Seed                      Rapeseed [(Canola)]                      Sweet Rocket</p> <p>Cultivars, varieties and/or hybrids of these commodities.</p> <p>[*Not for use in [California][CA].]</p>	70 days	<p><b>Annual Grasses:</b>                      4.1-5.5 fl oz                      (0.068-0.091 lb ai)</p> <p><b>Perennial Grasses:</b>                      5.5 fl oz                      (0.091 lb ai)</p>	<p><b>Non-ionic Surfactant:</b>                      0.25% v/v</p>	<p>Verify Crop safety to <b>CLETHODIM 2EC Herbicide<sup>2</sup></b> on a small area of the crop, at the desired <b>CLETHODIM 2EC Herbicide<sup>2</sup></b> rate and with the same Non-ionic Surfactant (NIS) that will be used on the field. If no crop response is evident 7 days after treatment, <b>CLETHODIM 2EC Herbicide<sup>2</sup></b> may be used on the entire field at the rate tested and with the same NIS used in the crop safety test.</p> <p>Crop injury may occur when this product is applied during the bloom period.</p> <p>Refer to tank mix partners for specific directions and restrictions.</p> <p><b>RESTRICTIONS:</b></p> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 5.5 fl oz (0.091 lb ai) per acre per application.</li> <li>• <b>DO NOT</b> apply more than 1 application per acre per year.</li> <li>• <b>DO NOT</b> apply more than 5.5 fl oz (0.091 lb ai) per acre per year.</li> <li>• For Reduced Rate Control of Small Annual Grasses: <b>DO NOT</b> apply more than 1 application at 3.7 fl oz (0.061 lb ai) per acre per year.</li> <li>• <b>DO NOT</b> apply after crop has begun bolting.</li> </ul>
<b>Carrot</b>	30 days	<p><b>Annual Grasses:</b>                      4.1-7.4 fl oz                      (0.068-0.121 lb ai)</p> <p><b>Perennial Grasses:</b>                      5.5-7.4 fl oz                      (0.091-0.121 lb ai)</p>	<p><b>Non-ionic Surfactant:</b>                      0.25% v/v</p>	<p><b>RESTRICTIONS:</b></p> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 7.4 fl oz (0.121 lb ai) per acre per application.</li> <li>• <b>DO NOT</b> apply more than 4 applications per year.</li> <li>• <b>DO NOT</b> apply more than 29.6 fl oz (0.485 lb ai) per acre per year.</li> <li>• <b>DO NOT</b> make repeat applications less than 14-days apart.</li> </ul>
<b>Clover</b>	15 days before grazing, feeding, or harvesting (cutting) for forage or hay.	<p><b>Annual Grasses:</b>                      4.1-7.4 fl oz                      (0.068-0.121 lb ai)</p> <p><b>Perennial Grasses:</b>                      5.5-14.8 fl oz                      (0.091-0.242 lb ai)</p>	<p><b>Non-ionic Surfactant:</b>                      0.25% v/v</p> <p align="center">+</p> <p><b>Ammonium Sulfate<sup>(4)</sup>:</b>                      2.5-4 lb/A</p>	<p>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.</p> <p><b>RESTRICTIONS:</b></p> <ul style="list-style-type: none"> <li>• For use on clover grown in the states of Idaho, Oregon and Washington only.</li> <li>• <b>DO NOT</b> apply more than 14.8 fl oz (0.242 lb ai) per acre per application.</li> <li>• For annual grasses, <b>DO NOT</b> apply more than 2 applications per year.</li> <li>• For perennial grasses, <b>DO NOT</b> apply more than 1 application per year.</li> <li>• <b>DO NOT</b> apply more than 14.8 fl oz (0.242 lb ai) per acre per year.</li> <li>• <b>DO NOT</b> make repeat applications less than 14-days apart.</li> </ul>

## CROP SPECIFIC USE INSTRUCTIONS AND RESTRICTIONS FOR CLETHODIM 2EC Herbicide<sup>2</sup>

CROPS <sup>(1)</sup>	APPLICATION TIMING AND PRE-HARVEST INTERVAL (PHI)	USE RATES PER ACRE <sup>(2)</sup>	ADJUVANT RATES PER ACRE <sup>(3)</sup>	SPECIAL USE INSTRUCTIONS
Conifer Trees	N/A	<p><b>Annual Grasses:</b> 4.1-7.4 fl oz (0.068-0.121 lb ai)</p> <p><b>Perennial Grasses:</b> 5.5-14.8 fl oz (0.091-0.242 lb ai)</p>	<p><b>Non-Ionic Surfactant:</b> 0.25% v/v</p> <p style="text-align: center;">OR</p> <p><b>Crop Oil Concentrate/ Methylated Seed Oil:</b> 1 qt/A or 1% v/v</p> <p style="text-align: center;">+</p> <p><b>Ammonium Sulfate<sup>(4)</sup>:</b> 2.5-4 lb/A</p>	<p>For use on Christmas tree farms, conifer nurseries and conifer plantations (but not in forests).</p> <p><b>RESTRICTIONS:</b></p> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 14.8 fl oz (0.242 lb ai) per acre per application.</li> <li>• For perennial grasses, <b>DO NOT</b> apply more than 2 applications per year.</li> <li>• For annual grasses, <b>DO NOT</b> apply more than 4 applications per year.</li> <li>• <b>DO NOT</b> apply more than 29.6 fl oz (0.485 lb ai) per acre per year.</li> <li>• <b>DO NOT</b> make repeat applications less than 14-days apart.</li> </ul>
Corn, Field <i>for replanting or cleanup</i>	90 days	<p><b>Annual Grasses:</b> 2.7 fl oz (0.045 lb ai)</p> <p><b>Perennial Grasses:</b> -</p>	<p><b>Non-Ionic Surfactant:</b> 0.25% v/v</p> <p style="text-align: center;">+</p> <p><b>Ammonium Sulfate<sup>(4)</sup>:</b> 2.5-4 lb/A</p>	<p>To control existing stand, replant no sooner than 6 days after application.</p> <p>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.</p> <p>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.</p> <p><b>RESTRICTIONS:</b></p> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 2.7 fl oz (0.045 lb ai) per acre per application.</li> <li>• <b>DO NOT</b> apply more than 1 application per year.</li> <li>• <b>DO NOT</b> apply more than 2.7 fl oz (0.045 lb ai) per acre per year.</li> <li>• <b>DO NOT</b> use Crop Oil Concentrate or Methylated Seed Oil.</li> </ul>

## CROP SPECIFIC USE INSTRUCTIONS AND RESTRICTIONS FOR CLETHODIM 2EC Herbicide<sup>2</sup>

CROPS <sup>(1)</sup>	APPLICATION TIMING AND PRE-HARVEST INTERVAL (PHI)	USE RATES PER ACRE <sup>(2)</sup>	ADJUVANT RATES PER ACRE <sup>(3)</sup>	SPECIAL USE INSTRUCTIONS
<p><b>Cotton[*]</b> <i>including:</i> <b>[(Crop Group 20C)]</b> Cotton Grown for Seed Cultivars, varieties, and/or hybrids of these. [*Not for use in [California][CA].]</p>	60 days	<p><b>Annual Grasses:</b> 4.1-7.4 fl oz (0.068-0.121 lb ai)</p> <p><b>Perennial Grasses:</b> 5.5-14.8 fl oz (0.091-0.242 lb ai)</p>	<p><b>Non-Ionic Surfactant:</b> 0.25% v/v OR <b>Crop Oil Concentrate/ Methylated Seed Oil:</b> 1 qt/A or 1% v/v + <b>Ammonium Sulfate<sup>(4)</sup>:</b> 2.5-4 lb/A</p>	<p>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. Refer to tank mix partners for specific directions and restrictions.</p> <p><b>RESTRICTIONS:</b></p> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 14.8 fl oz (0.242 lb ai) per acre per application.</li> <li>• For annual grasses, <b>DO NOT</b> apply more than 4 applications per year.</li> <li>• For perennial grasses, <b>DO NOT</b> apply more than 2 applications per year.</li> <li>• <b>DO NOT</b> apply more than 29.6 fl oz (0.485 lb ai) per acre per year.</li> <li>• <b>DO NOT</b> make repeat applications less than 14-days apart.</li> <li>• <b>DO NOT</b> graze treated fields or feed treated forage or hay to livestock.</li> </ul>
Cranberry	30 days	<p><b>Annual Grasses:</b> 4.1-7.4 fl oz (0.068-0.121 lb ai)</p> <p><b>Perennial Grasses:</b> 5.5-7.4 fl oz (0.091-0.121 lb ai)</p>	<p><b>Non-Ionic Surfactant:</b> 0.25% v/v</p>	<p><b>RESTRICTIONS:</b></p> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 7.4 fl oz (0.121 lb ai) per acre per application.</li> <li>• <b>DO NOT</b> apply more than 4 applications per year.</li> <li>• <b>DO NOT</b> apply more than 29.6 fl oz (0.485 lb ai) per acre per year.</li> <li>• <b>DO NOT</b> make repeat applications less than 14-days apart.</li> <li>• <b>DO NOT</b> apply between the “hook” stage and full fruit set.</li> </ul>

**CROP SPECIFIC USE INSTRUCTIONS AND RESTRICTIONS FOR CLETHODIM 2EC Herbicide<sup>2</sup>**

CROPS <sup>(1)</sup>	APPLICATION TIMING AND PRE-HARVEST INTERVAL (PHI)	USE RATES PER ACRE <sup>(2)</sup>	ADJUVANT RATES PER ACRE <sup>(3)</sup>	SPECIAL USE INSTRUCTIONS
<p><b>Fallow Land</b> (and other non-producing agricultural areas)</p>	<p align="center">N/A</p>	<p><b>Annual Grasses:</b> 4.1-7.4 fl oz (0.068-0.121 lb ai)</p> <p><b>Perennial Grasses:</b> 5.5-14.8 fl oz (0.091-0.242 lb ai)</p>	<p><b>Non-Ionic Surfactant:</b> 0.25% v/v</p> <p align="center">OR</p> <p><b>Crop Oil Concentrate/ Methylated Seed Oil:</b> 1 qt/A or 1% v/v +</p> <p><b>Ammonium Sulfate<sup>(4)</sup>:</b> 2.5-4 lb/A</p>	<p>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.</p> <p>Refer to tank mix partners for specific directions and restrictions.</p> <p><b>RESTRICTIONS:</b></p> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 14.8 fl oz (0.242 lb ai) per acre per application.</li> <li>• For annual grasses, <b>DO NOT</b> apply more than 4 applications per year.</li> <li>• For perennial grasses, <b>DO NOT</b> apply more than 2 applications per year.</li> <li>• <b>DO NOT</b> apply more than 29.6 fl oz (0.485 lb ai) per acre per year.</li> <li>• <b>DO NOT</b> make repeat applications less than 14-days apart.</li> <li>• <b>DO NOT</b> plant any crop for 30 days following application unless clethodim is registered for use on that crop.</li> <li>• <b>DO NOT</b> apply to drought stressed grasses.</li> <li>• <b>DO NOT</b> apply to grasses that have tillered, formed seed-heads or exceeded specified growth stage.</li> <li>• <b>DO NOT</b> flood jet nozzles.</li> <li>• <b>DO NOT</b> mow area for two (2) weeks prior to or after the <b>CLETHODIM 2EC Herbicide<sup>2</sup></b> application.</li> </ul>
<p><b>Flax[*]</b> [*Not for use in [California][CA].]</p>	<p align="center">60 days</p>	<p><b>Annual Grasses:</b> 4.1-7.4 fl oz (0.068-0.121 lb ai)</p> <p><b>Perennial Grasses:</b> 5.5-7.4 fl oz (0.091-0.121 lb ai)</p>	<p><b>Non-Ionic Surfactant:</b> 0.25% v/v</p>	<p>Make application prior to bloom. If applied during bloom, crop injury could occur.</p> <p>Refer to tank mix partners for specific directions and restrictions.</p> <p><b>RESTRICTIONS:</b></p> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 7.4 fl oz (0.121 lb ai) per acre per application.</li> <li>• <b>DO NOT</b> apply more than 2 applications per year.</li> <li>• <b>DO NOT</b> apply more than 14.8 fl oz (0.242 lb ai) per acre per year.</li> <li>• For Reduced Rate Control for Small Annual Grasses: <b>DO NOT</b> apply more than 4 applications at 3.7 fl oz (0.061 lb ai) per acre per year.</li> <li>• <b>DO NOT</b> make repeat applications less than 14-days apart.</li> </ul>

**CROP SPECIFIC USE INSTRUCTIONS AND RESTRICTIONS FOR CLETHODIM 2EC Herbicide<sup>2</sup>**

CROPS <sup>(1)</sup>	APPLICATION TIMING AND PRE-HARVEST INTERVAL (PHI)	USE RATES PER ACRE <sup>(2)</sup>	ADJUVANT RATES PER ACRE <sup>(3)</sup>	SPECIAL USE INSTRUCTIONS
<p><b>Fruiting Vegetables (except tomato, okra) [(Crop Group 8-10)]</b>  <i>including:</i>                      African Eggplant                      Bush Tomato                      Cocona                      Currant Tomato                      Eggplant                      Garden Huckleberry                      Goji Berry                      Groundcherry                      Martynia                      Naranjilla                      Pea Eggplant                      Pepino                      Pepper, Bell                      Pepper, Nonbell                      Roselle                      Scarlet Eggplant                      Sunberry                      Tomatillo                      Tree Tomato                      Cultivars, varieties, and/or hybrids of these.</p>	<p align="center">20 days</p>	<p><b>Annual Grasses:</b>                      4.1-7.4 fl oz                      (0.068-0.121 lb ai)</p> <p><b>Perennial Grasses:</b>                      5.5-7.4 fl oz                      (0.091-0.121 lb ai)</p>	<p><b>Non-Ionic Surfactant:</b>                      0.25% v/v</p>	<p><b>RESTRICTIONS:</b></p> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 7.4 fl oz (0.121 lb ai) per acre per application.</li> <li>• <b>DO NOT</b> apply more than 4 applications per year.</li> <li>• <b>DO NOT</b> apply more than 29.6 fl oz (0.485 lb ai) per acre per year.</li> <li>• <b>DO NOT</b> make repeat applications less than 14-days apart.</li> </ul>
<p><b>Garden Beets</b></p>	<p align="center">30 days</p>	<p><b>Annual Grasses:</b>                      4.1-7.4 fl oz                      (0.068-0.121 lb ai)</p> <p><b>Perennial Grasses:</b>                      5.5-7.4 fl oz                      (0.091-0.121 lb ai)</p>	<p><b>Non-Ionic Surfactant:</b>                      0.25% v/v</p>	<p><b>RESTRICTIONS:</b></p> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 7.4 fl oz (0.121 lb ai) per acre per application.</li> <li>• <b>DO NOT</b> apply more than 4 applications per year.</li> <li>• <b>DO NOT</b> apply more than 29.6 fl oz (0.485 lb ai) per acre per year.</li> <li>• <b>DO NOT</b> make repeat applications less than 14-days apart.</li> </ul>

**CROP SPECIFIC USE INSTRUCTIONS AND RESTRICTIONS FOR CLETHODIM 2EC Herbicide<sup>2</sup>**

CROPS <sup>(1)</sup>	APPLICATION TIMING AND PRE-HARVEST INTERVAL (PHI)	USE RATES PER ACRE <sup>(2)</sup>	ADJUVANT RATES PER ACRE <sup>(3)</sup>	SPECIAL USE INSTRUCTIONS
<b>Herbs [(Crop Group 19A)]</b> <i>including:</i> Angelica Balm Basil Borage Burnet Chamomile Catnip Chervil, (dried) Chive Chinese Chive Clary Coriander (leaf) Costmary Culantro (leaf) Curry (leaf) Dill (dillweed) Horehound Hyssop Lavender Lemongrass Lovage (leaf) Marigold Marjoram ( <i>Origanum</i> spp.) Nasturtium Parsley (dried) Pennyroyal Rosemary Rue Sage Savory, Summer Savory, Winter Sweet Bay Tansy Tarragon Thyme Wintergreen Woodruff Wormwood	14 days	<b>Annual Grasses:</b> 4.1-7.4 fl oz (0.068-0.121 lb ai)  <b>Perennial Grasses:</b> 5.5-7.4 fl oz (0.091-0.121 lb ai)	<b>Non-Ionic Surfactant:</b> 0.25% v/v	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.  Verify Crop safety to <b>CLETHODIM 2EC Herbicide<sup>2</sup></b> on a small area of the crop, at the desired <b>CLETHODIM 2EC Herbicide<sup>2</sup></b> rate and with the same Non-ionic Surfactant (NIS) that will be used on the field. If no crop response is evident 7 days after treatment, <b>CLETHODIM 2EC Herbicide<sup>2</sup></b> may be used on the entire field at the rate tested and with the same NIS used in the crop safety test.  <b>RESTRICTIONS:</b> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 7.4 fl oz (0.121 lb ai) per acre per application.</li> <li>• <b>DO NOT</b> apply more than 4 applications per year.</li> <li>• <b>DO NOT</b> apply more than 29.6 fl oz (0.485 lb ai) per acre per year.</li> <li>• <b>DO NOT</b> make repeat applications less than 14-days apart.</li> </ul>
<b>Hops</b>	21 days	<b>Annual Grasses:</b> 4.1-7.4 fl oz (0.068-0.121 lb ai)  <b>Perennial Grasses:</b> 5.5-7.4 fl oz (0.091-0.121 lb ai)	<b>Non-Ionic Surfactant:</b> 0.25% v/v	<b>RESTRICTIONS:</b> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 7.4 fl oz (0.121 lb ai) per acre per application.</li> <li>• <b>DO NOT</b> apply more than 4 applications per year.</li> <li>• <b>DO NOT</b> apply more than 29.6 fl oz (0.485 lb ai) per acre per year.</li> <li>• <b>DO NOT</b> make repeat applications less than 14-days apart.</li> </ul>

**CROP SPECIFIC USE INSTRUCTIONS AND RESTRICTIONS FOR CLETHODIM 2EC Herbicide<sup>2</sup>**

CROPS <sup>(1)</sup>	APPLICATION TIMING AND PRE-HARVEST INTERVAL (PHI)	USE RATES PER ACRE <sup>(2)</sup>	ADJUVANT RATES PER ACRE <sup>(3)</sup>	SPECIAL USE INSTRUCTIONS
<p><b>Head and Stem Leafy Greens [(Crop Group 4-16A)][*]</b>  <i>including:</i>                      Amaranth, Chinese Spinach                      Amaranth, Leafy                      Aster, Indian Blackjack                      Cat's Whiskers                      Cham-Chwi                      Cham-Na-Mul                      Chervil (fresh leaves)                      Chipilin                      Chrysanthemum, Garland                      Cilantro (fresh leaves)                      Corn Salad                      Cosmos                      Dandelion (leaves)                      Dang-Gwi (leaves)                      Dillweed                      Dock (Sorrel)                      Dol-Nam-Mul                      Ebolo                      Endive (Escarole)                      Fameflower                      Feather Cockscomb                      Good King Henry                      Huauzontle                      Jute (leaves)                      Lettuce, Bitter                      Lettuce, Head                      Lettuce, Leaf                      Orach                      Parsley (fresh leaves)                      Plantain, Buckhorn                      Primrose, English                      Purslane, Garden                      Purslane, Winter                      Radicchio (Red Chicory)                      Spinach                      Spinach, Malabar                      Spinach, New Zealand                      Spinach, Tanier                      Swiss Chard                      Violet, Chinese (leaves)                      Cultivars, varieties, and/or hybrids of these.</p> <p>[*Not for use in [California][CA].]</p>	<p align="center">14 days</p>	<p><b>Annual Grasses:</b>                      4.1-7.4 fl oz                      (0.068-0.121 lb ai)</p> <p><b>Perennial Grasses:</b>                      5.5-7.4 fl oz                      (0.091-0.121 lb ai)</p>	<p><b>Non-Ionic Surfactant:</b>                      0.25% v/v</p>	<p><b>RESTRICTIONS:</b></p> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 7.4 fl oz (0.121 lb ai) per acre per application.</li> <li>• <b>DO NOT</b> apply more than 4 applications per year.</li> <li>• <b>DO NOT</b> apply more than 29.6 fl oz (0.485 lb ai) per acre per year.</li> <li>• <b>DO NOT</b> make repeat applications less than 14-days apart.</li> </ul>

**CROP SPECIFIC USE INSTRUCTIONS AND RESTRICTIONS FOR CLETHODIM 2EC Herbicide<sup>2</sup>**

CROPS <sup>(1)</sup>	APPLICATION TIMING AND PRE-HARVEST INTERVAL (PHI)	USE RATES PER ACRE <sup>(2)</sup>	ADJUVANT RATES PER ACRE <sup>(3)</sup>	SPECIAL USE INSTRUCTIONS
<p><b>Leaf Petioles [(Crop Group 22B)][*]</b>  <i>including:</i>                      Cardoon                      Celery                      Chinese Celery                      Fuki                      Rhubarb                      Udo                      Zuiki                      Cultivars, varieties, and/or hybrids of these.                      [*Not for use in [California][CA].]</p>	<p align="center">30 days</p>	<p><b>Annual Grasses:</b>                      4.1-7.4 fl oz                      (0.068-0.121 lb ai)</p> <p><b>Perennial Grasses:</b>                      5.5-7.4 fl oz                      (0.091-0.121 lb ai)</p>	<p><b>Non-Ionic Surfactant:</b>                      0.25% v/v</p>	<p><b>RESTRICTIONS:</b></p> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 7.4 fl oz (0.121 lb ai) per acre per application.</li> <li>• <b>DO NOT</b> apply more than 4 applications per year.</li> <li>• <b>DO NOT</b> apply more than 29.6 fl oz (0.485 lb ai) per acre per year.</li> <li>• <b>DO NOT</b> make repeat applications less than 14-days apart.</li> </ul>
<p><b>Edible Podded Legume Vegetables [(Crop Group 6A)]</b>  <i>including:</i>                      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 Pea                      Soybean                      ([Edamame]; immature seed)                      Sword Bean</p>	<p align="center">21 days</p>	<p><b>Annual Grasses:</b>                      4.1-7.4 fl oz                      (0.068-0.121 lb ai)</p> <p><b>Perennial Grasses:</b>                      5.5-7.4 fl oz                      (0.091-0.121 lb ai)</p>	<p><b>Non-Ionic Surfactant:</b>                      0.25% v/v</p>	<p><b>RESTRICTIONS:</b></p> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 7.4 fl oz (0.121 lb ai) per acre per application.</li> <li>• <b>DO NOT</b> apply more than 1 application per year.</li> <li>• <b>DO NOT</b> apply more than 7.4 fl oz (0.121 lb ai) per acre per year.</li> <li>• For peas apply before bloom, but no later than 21 days before harvest.</li> </ul>



**CROP SPECIFIC USE INSTRUCTIONS AND RESTRICTIONS FOR CLETHODIM 2EC Herbicide<sup>2</sup>**

CROPS <sup>(1)</sup>	APPLICATION TIMING AND PRE-HARVEST INTERVAL (PHI)	USE RATES PER ACRE <sup>(2)</sup>	ADJUVANT RATES PER ACRE <sup>(3)</sup>	SPECIAL USE INSTRUCTIONS
<p><b>Melons [(Crop Group 9A)]</b>  <i>including:</i>                      Citron Melon                      Muskmelon                      hybrids and/or cultivars of <i>Cucumis melo</i>:                      True Cantaloupe                      Cantaloupe                      Casaba                      Crenshaw Melon                      Golden Pershaw Melon                      Honeydew Melon                      Honey Balls                      Mango Melon                      Persian Melon                      Pineapple Melon                      Santa Claus Melon                      Snake Melon                      Watermelon                      hybrids and/or varieties of <i>Citrullus lanatus</i>.</p>	<p align="center">14 days</p>	<p><b>Annual Grasses:</b>                      4.1-7.4 fl oz                      (0.068-0.121 lb ai)</p> <p><b>Perennial Grasses:</b>                      5.5-7.4 fl oz                      (0.091-0.121 lb ai)</p>	<p><b>Non-Ionic Surfactant:</b>                      0.25% v/v</p>	<p><b>RESTRICTIONS:</b></p> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 7.4 fl oz (0.121 lb ai) per acre per application.</li> <li>• <b>DO NOT</b> apply more than 4 applications per year.</li> <li>• <b>DO NOT</b> apply more than 29.6 fl oz (0.485 lb ai) per acre per year.</li> <li>• <b>DO NOT</b> make repeat applications less than 14-days apart.</li> </ul>
<p><b>Mint</b>                      Peppermint (tops)                      Spearmint (tops)</p>	<p align="center">21 days</p>	<p><b>Annual Grasses:</b>                      4.1-7.4 fl oz                      (0.068-0.121 lb ai)</p> <p><b>Perennial Grasses:</b>                      5.5-14.8 fl oz                      (0.091-0.242 lb ai)</p>	<p><b>Non-Ionic Surfactant:</b>                      0.25% v/v</p> <p align="center">OR</p> <p><b>Crop Oil Concentrate/                      Methylated Seed Oil:</b>                      1 qt/A                      or                      1 % v/v                      +</p> <p><b>Ammonium Sulfate<sup>(4)</sup>:</b>                      2.5-4 lb/A</p>	<p>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.</p> <p>Refer to tank mix partners for specific directions and restrictions.</p> <p><b>RESTRICTIONS:</b></p> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 14.8 fl oz (0.242 lb ai) per acre per application.</li> <li>• For annual grasses, <b>DO NOT</b> apply more than 4 applications per year.</li> <li>• For perennial grasses, <b>DO NOT</b> apply more than 2 applications per year.</li> <li>• <b>DO NOT</b> apply more than 29.6 fl oz (0.485 lb ai) per acre per year.</li> <li>• <b>DO NOT</b> make repeat applications less than 14-days apart.</li> </ul>

## CROP SPECIFIC USE INSTRUCTIONS AND RESTRICTIONS FOR CLETHODIM 2EC Herbicide<sup>2</sup>

CROPS <sup>(1)</sup>	APPLICATION TIMING AND PRE-HARVEST INTERVAL (PHI)	USE RATES PER ACRE <sup>(2)</sup>	ADJUVANT RATES PER ACRE <sup>(3)</sup>	SPECIAL USE INSTRUCTIONS
<b>Mustard Seed[*]</b> [*Not for use in [California][CA].]	75 days	<b>Annual Grasses:</b> 4.1-5.5 fl oz (0.068-0.091 lb ai)  <b>Perennial Grasses:</b> 5.5 fl oz (0.091 lb ai)	<b>Non-Ionic Surfactant:</b> 0.25% v/v	If applied during the bloom period, crop injury may occur. <b>RESTRICTIONS:</b> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 5.5 fl oz (0.091 lb ai) per acre per application.</li> <li>• <b>DO NOT</b> apply more than 1 application per year.</li> <li>• <b>DO NOT</b> apply more than 5.5 fl oz (0.091 lb ai) per acre per year.</li> <li>• For Reduced Rate Control of Small Annual Grasses: <b>DO NOT</b> apply more than 1 application at 3.7 fl oz (0.061 lb ai) per acre per year.</li> <li>• <b>DO NOT</b> apply after crop has begun bolting.</li> </ul>
<b>Mustard Spinach</b>	30 days	<b>Annual Grasses:</b> 4.1-7.4 fl oz (0.068-0.121 lb ai)  <b>Perennial Grasses:</b> 5.5-7.4 fl oz (0.091-0.121 lb ai)	<b>Non-Ionic Surfactant:</b> 0.25% v/v	<b>RESTRICTIONS:</b> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 7.4 fl oz (0.121 lb ai) per acre per application.</li> <li>• <b>DO NOT</b> apply more than 4 applications per year.</li> <li>• <b>DO NOT</b> apply more than 29.6 fl oz (0.485 lb ai) per acre per year.</li> <li>• <b>DO NOT</b> make repeat applications less than 14-days apart.</li> </ul>

**CROP SPECIFIC USE INSTRUCTIONS AND RESTRICTIONS FOR CLETHODIM 2EC Herbicide2**

CROPS <sup>(1)</sup>	APPLICATION TIMING AND PRE-HARVEST INTERVAL (PHI)	USE RATES PER ACRE <sup>(2)</sup>	ADJUVANT RATES PER ACRE <sup>(3)</sup>	SPECIAL USE INSTRUCTIONS
Non-Bearing Fruit and Nut Crops	N/A	4.1-7.4 fl oz (0.068-0.121 lb ai)	<b>Non-Ionic Surfactant:</b> 0.25% v/v	<p>For reduced rates for the control of small annual grasses, refer to the appropriate Table.</p> <p>Crop injury to non-bearing fruit and nut crops can occur if <b>CLETHODIM 2EC Herbicide2</b> is improperly applied. <b>CLETHODIM 2EC Herbicide2</b> must not be applied directly over the top of these plant types. Instead, direct spray at the base of the plant where grassy weeds are growing near the ground.</p> <p><b>RESTRICTIONS:</b></p> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 7.4 fl oz (0.121 lb ai) per acre per application.</li> <li>• <b>DO NOT</b> apply more than 4 applications per year.</li> <li>• <b>DO NOT</b> apply more than 29.6 fl oz (0.485 lb ai) per acre per year.</li> <li>• <b>DO NOT</b> make repeat applications less than 14-days apart.</li> <li>• Sugar maples cannot be tapped for syrup within one year of <b>CLETHODIM 2EC Herbicide2</b> application.</li> <li>• <b>DO NOT APPLY CLETHODIM 2EC Herbicide2 TO NON-BEARING FRUIT OR NUT CROPS GROWN FOR ROOT STOCK.</b></li> <li>• If <b>CLETHODIM 2EC Herbicide2</b> is applied as a spot treatment to non-bearing fruit and nut crops, <b>DO NOT</b> exceed the maximum rate allowed on a “per acre” basis.</li> <li>• <b>DO NOT</b> use a crop oil concentrate as injury to flower and foliage may occur.</li> <li>• Aerial applications for all tree fruits and tree nuts uses are prohibited.</li> </ul>

## CROP SPECIFIC USE INSTRUCTIONS AND RESTRICTIONS FOR CLETHODIM 2EC Herbicide<sup>2</sup>

CROPS <sup>(1)</sup>	APPLICATION TIMING AND PRE-HARVEST INTERVAL (PHI)	USE RATES PER ACRE <sup>(2)</sup>	ADJUVANT RATES PER ACRE <sup>(3)</sup>	SPECIAL USE INSTRUCTIONS
<b>Non-Crop or Non-Planted Areas</b>	N/A	<p><b>Annual Grasses:</b> 4.1-7.4 fl oz (0.068-0.121 lb ai)</p> <p><b>Perennial Grasses:</b> 5.5-14.8 fl oz (0.091-0.242 lb ai)</p>	<p><b>Non-Ionic Surfactant:</b> 0.25% v/v</p> <p style="text-align: center;">OR</p> <p><b>Crop Oil Concentrate/ Methylated Seed Oil:</b> 1 qt/A or 1% v/v</p> <p style="text-align: center;">+</p> <p><b>Ammonium Sulfate<sup>(4)</sup>:</b> 2.5-4 lb/A</p>	<p>The following areas are considered non-crop or non-planted areas: rights-of-way, 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; beneath greenhouse benches; around golf courses.</p> <p><b>RESTRICTIONS:</b></p> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 14.8 fl oz (0.242 lb ai) per acre per application.</li> <li>• For annual grasses, <b>DO NOT</b> apply more than 4 applications at 7.4 fl oz (0.121 lb ai) per acre per year.</li> <li>• For perennial grasses, <b>DO NOT</b> apply more than 2 applications per year.</li> <li>• <b>DO NOT</b> apply more than 29.6 fl oz (0.485 lb ai) per acre per year.</li> <li>• <b>DO NOT</b> make repeat applications less than 14-days apart.</li> <li>• Other than the crop oil identified, <b>DO NOT</b> apply as part of a tank mix when applying this product for grass suppression.</li> <li>• <b>DO NOT</b> plant any crop for 30 days following application unless clethodim is registered for use on that crop.</li> </ul>
<p><b>Okra[*]</b></p> <p>[*Not for use in [California][CA].]</p>	3 days	<p><b>Annual Grasses:</b> 4.1-7.4 fl oz (0.068-0.121 lb ai)</p> <p><b>Perennial Grasses:</b> 5.5-7.4 fl oz (0.091-0.121 lb ai)</p>	<p><b>Non-Ionic Surfactant:</b> 0.25% v/v</p>	<p><b>RESTRICTIONS:</b></p> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 7.4 fl oz (0.121 lb ai) per acre per application.</li> <li>• <b>DO NOT</b> apply more than 4 applications per year.</li> <li>• <b>DO NOT</b> apply more than 29.6 fl oz (0.485 lb ai) per acre per year.</li> <li>• <b>DO NOT</b> make repeat applications less than 14-days apart.</li> </ul>

## CROP SPECIFIC USE INSTRUCTIONS AND RESTRICTIONS FOR CLETHODIM 2EC Herbicide<sup>2</sup>

CROPS <sup>(1)</sup>	APPLICATION TIMING AND PRE-HARVEST INTERVAL (PHI)	USE RATES PER ACRE <sup>(2)</sup>	ADJUVANT RATES PER ACRE <sup>(3)</sup>	SPECIAL USE INSTRUCTIONS
<p><b>Onions, Dry Bulb [(Crop Group 3-07A)]</b>  <i>including:</i>                      Daylily (bulb)                      Fritillaria (bulb)                      Garlic (bulb)                      Garlic, Great-headed (bulb)                      Garlic, Serpent (bulb)                      Lily (bulb)                      Onion (bulb)                      Onion, Chinese (bulb)                      Onion, Pearl                      Onion, Potato (bulb)                      Shallot (bulb)                      Cultivars, varieties, and/or hybrids of these.</p>	<p style="text-align: center;">45 days</p>	<p><b>Annual Grasses:</b>                      4.1-7.4 fl oz                      (0.068-0.121 lb ai)</p> <p><b>Perennial Grasses:</b>                      5.5-14.8 fl oz                      (0.091-0.242 lb ai)</p>	<p><b>Non-Ionic Surfactant:</b>                      0.25% v/v</p>	<p>Minimum 20 gal/A spray volume by ground in entire U.S.                      [Minimum 20 gal/A spray volume by air in [California][CA].<sup>(9)</sup>                      [States Other than [California][CA]:] Make application by air to onions, garlic or shallots in a minimum of 10 gals/A.</p> <p><b>RESTRICTIONS:</b></p> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 14.8 fl oz (0.242 lb ai) per acre per application.</li> <li>• For annual grasses, <b>DO NOT</b> apply more than 4 applications per year.</li> <li>• For perennial grasses, <b>DO NOT</b> apply more than 2 applications per year.</li> <li>• <b>DO NOT</b> apply more than 29.6 fl oz (0.485 lb ai) per acre per year.</li> <li>• <b>DO NOT</b> make repeat applications less than 14-days apart.</li> <li>• When applying by air, do not apply more than 7.4 fl oz (0.121 lb ai) per acre per application and 14.8 fl oz (0.242 lb ai) per acre per year.</li> <li>• If this product is applied as a spot treatment to onion or garlic, <b>DO NOT</b> exceed the maximum rate allowed on a "per acre" basis (14.8 fl oz (0.242 lb ai) per acre).</li> <li>• [In [California][CA], <b>DO NOT</b> apply this product to garlic or onion until the crop has at least two full leaves. Use a 14 day spray interval between the application of this product and liquid nitrogen or other herbicide applications. Injury to crop may occur when shorter intervals are observed.]</li> </ul>

**CROP SPECIFIC USE INSTRUCTIONS AND RESTRICTIONS FOR CLETHODIM 2EC Herbicide<sup>2</sup>**

CROPS <sup>(1)</sup>	APPLICATION TIMING AND PRE-HARVEST INTERVAL (PHI)	USE RATES PER ACRE <sup>(2)</sup>	ADJUVANT RATES PER ACRE <sup>(3)</sup>	SPECIAL USE INSTRUCTIONS
<p><b>Onions, Green</b>  <b>[(Crop Group 3-07B)][*]</b>  <i>including:</i>                      Chive (fresh leaves)                      Chive, Chinese (fresh leaves)                      Elegans Hosta                      Fritillaria (leaves)                      Kurrat                      Lady's Leek                      Leek                      Leek, Wild                      Onion, Beltsville Bunching                      Onion, Fresh                      Onion, Green                      Onion, Macrostem                      Onion, Tree (tops)                      Onion, Welsh (tops)                      Shallot (fresh leaves)                      Cultivars, varieties, and/or hybrids of these.                      [*Not for use in [California][CA].]</p>	<p align="center">14 days</p>	<p><b>Annual Grasses:</b>                      4.1-7.4 fl oz                      (0.068-0.121 lb ai)</p> <p><b>Perennial Grasses:</b>                      5.5-7.4 fl oz                      (0.091-0.121 lb ai)</p>	<p><b>Non-Ionic Surfactant:</b>                      0.25% v/v</p>	<p>[Minimum 20 gal/A spray volume by air in [California][CA].]                      [States Other than [California][CA]:] Make application by air to onions, garlic or shallots in a minimum of 10 gals/A.</p> <p><b>RESTRICTIONS:</b></p> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 7.4 fl oz (0.121 lb ai) per acre per application.</li> <li>• <b>DO NOT</b> apply more than 4 applications per year.</li> <li>• <b>DO NOT</b> apply more than 29.6 fl oz (0.485 lb ai) per acre per year.</li> <li>• <b>DO NOT</b> make repeat applications less than 14-days apart.</li> <li>• If this product is applied as a spot treatment to onion or garlic, <b>DO NOT</b> exceed the maximum rate allowed on a "per acre" basis (7.4 fl oz (0.121 lb ai) per acre).</li> <li>• [In [California][CA] for air applications to onion, <b>DO NOT</b> apply more than 2 applications per year.]</li> <li>• [In [California][CA], <b>DO NOT</b> apply this product to onion or garlic until the crop has at least two full leaves. Use a 14 day spray interval between the application of this product and liquid nitrogen or other herbicide applications. Injury to crop may occur when shorter intervals are observed.]</li> </ul>
<p><b>Ornamentals</b></p>	<p align="center">N/A</p>	<p><b>Annual Grasses:</b>                      4.1-7.4 fl oz                      (0.068-0.121 lb ai)</p> <p><b>Perennial Grasses:</b>                      5.5-14.8 fl oz                      (0.091-0.242 lb ai)</p>	<p><b>Non-Ionic Surfactant:</b>                      0.25% v/v</p>	<p>For ornamental plant uses, this product can be used to control labeled grass weeds in greenhouses, lathhouses, shadehouses, and around outdoor ornamentals, including nurseries, parks, roadside plantings, and structure landscapes. The plants listed in the following tables have been tested for crop safety with this product.</p> <p><b>RESTRICTIONS:</b></p> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 14.8 fl oz (0.242 lb ai) per acre per application.</li> <li>• For annual grasses, <b>DO NOT</b> apply more than 4 applications per year.</li> <li>• For perennial grasses, <b>DO NOT</b> apply more than 2 applications per year.</li> <li>• <b>DO NOT</b> apply more than 29.6 fl oz (0.485 lb ai) per acre per year.</li> <li>• <b>DO NOT</b> make repeat applications less than 14-days apart.</li> <li>• <b>DO NOT</b> use a crop oil concentrate as injury to flower and foliage may occur.</li> </ul>

**CROP SPECIFIC USE INSTRUCTIONS AND RESTRICTIONS FOR CLETHODIM 2EC Herbicide<sup>2</sup>**

CROPS <sup>(1)</sup>	APPLICATION TIMING AND PRE-HARVEST INTERVAL (PHI)	USE RATES PER ACRE <sup>(2)</sup>	ADJUVANT RATES PER ACRE <sup>(3)</sup>	SPECIAL USE INSTRUCTIONS
<p><b>Pea, Dry Shelled [(Crop Group 6C)]</b>  <i>including:</i>                      Pea (<i>Pisum</i> spp.)                      Field                      Pigeon Pea</p>	<p align="center">30 days</p>	<p><b>Annual Grasses:</b>                      4.1-7.4 fl oz                      (0.068-0.121 lb ai)</p> <p><b>Perennial Grasses:</b>                      5.5-7.4 fl oz                      (0.091-0.121 lb ai)</p>	<p><b>Non-Ionic Surfactant:</b>                      0.25% v/v</p>	<p>Applications of this product to peas during the bloom period may result in severe crop injury, including loss of yield and delayed maturity.</p> <p>Refer to tank mix partners for specific directions and restrictions.</p> <p><b>RESTRICTIONS:</b></p> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 7.4 fl oz (0.121 lb ai) per acre per application.</li> <li>• <b>DO NOT</b> apply more than 1 application per year.</li> <li>• <b>DO NOT</b> apply more than 7.4 fl oz (0.121 lb ai) per acre per year.</li> <li>• For Reduced Rate Control of Small Annual Grasses: <b>DO NOT</b> make repeat applications less than 14-days apart.</li> <li>• For Reduced Rate Control of Small Annual Grasses: <b>DO NOT</b> make more than 2 applications at 3.7 fl oz (0.061 lb ai) per acre per year. [(Not approved for this use in [California][CA].)]</li> <li>• Apply before bloom, but no later than 30 days prior to harvest.</li> </ul>
<p><b>Pea, Succulent [(Crop Group 6B)]</b>  <i>including:</i>                      Pea (<i>Pisum</i> spp.)                      English                      Garden                      Green                      Pigeon Pea</p>	<p align="center">21 days</p>	<p><b>Annual Grasses:</b>                      4.1-7.4 fl oz                      (0.068-0.121 lb ai)</p> <p><b>Perennial Grasses:</b>                      5.5-7.4 fl oz                      (0.091-0.121 lb ai)</p>	<p><b>Non-Ionic Surfactant:</b>                      0.25% v/v</p>	<p>Applications of this product to peas during the bloom period may result in severe crop injury, including loss of yield and delayed maturity.</p> <p>Refer to tank mix partners for specific directions and restrictions.</p> <p><b>RESTRICTIONS:</b></p> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 7.4 fl oz (0.121 lb ai) per acre per application.</li> <li>• <b>DO NOT</b> apply more than 1 application per year.</li> <li>• <b>DO NOT</b> apply more than 7.4 fl oz (0.121 lb ai) per acre per year.</li> <li>• For Reduced Rate Control of Small Annual Grasses: <b>DO NOT</b> make repeat applications less than 14-days apart.</li> <li>• For Reduced Rate Control of Small Annual Grasses: <b>DO NOT</b> apply more than 2 applications at 3.7 fl oz (0.061 lb ai) per acre per year.</li> <li>• Apply before bloom, but no later than 21 days prior to harvest.</li> </ul>

**CROP SPECIFIC USE INSTRUCTIONS AND RESTRICTIONS FOR CLETHODIM 2EC Herbicide<sup>2</sup>**

CROPS <sup>(1)</sup>	APPLICATION TIMING AND PRE-HARVEST INTERVAL (PHI)	USE RATES PER ACRE <sup>(2)</sup>	ADJUVANT RATES PER ACRE <sup>(3)</sup>	SPECIAL USE INSTRUCTIONS
<b>Peanut</b> <i>including:</i> perennial	40 days	<b>Annual Grasses:</b> 4.2-7.4 fl oz (0.068-0.121 lb ai)  <b>Perennial Grasses:</b> 5.5-14.8 fl oz (0.091-0.242 lb ai)	<b>Non-ionic Surfactant:</b> 0.25% v/v OR <b>Crop Oil Concentrate/ Methylated Seed Oil:</b> 1 qt/A or 1% v/v + <b>Ammonium Sulfate<sup>(4)</sup>:</b> 2.5-4 lb/A	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.  Refer to tank mix partners for specific directions and restrictions.  <b>RESTRICTIONS:</b> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 14.8 fl oz (0.242 lb ai) per acre per application.</li> <li>• <b>DO NOT</b> apply more than 2 applications per year.</li> <li>• <b>DO NOT</b> apply more than 29.6 fl oz (0.485 lb ai) per acre per year.</li> <li>• <b>DO NOT</b> make repeat applications less than 14-days apart.</li> </ul>
<b>Pome Fruit [(Crop Group 11-10)]</b> <i>including:</i> Apple Azarole Crabapple Loquat Mayhaw Medlar Pear Pear, Asian Quince Quince, Chinese Quince, Japanese Tejocote  Cultivars, varieties, and/or hybrids of these.	14 days	<b>Annual Grasses:</b> 4.1-7.4 fl oz (0.068-0.121 lb ai)  <b>Perennial Grasses:</b> 5.5-7.4 fl oz (0.091-0.121 lb ai)	<b>Non-ionic Surfactant:</b> 0.25% v/v	Refer to tank mix partners for specific directions and restrictions.  <b>RESTRICTIONS:</b> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 7.4 fl oz (0.121 lb ai) per acre per application.</li> <li>• <b>DO NOT</b> apply more than 4 applications per year.</li> <li>• <b>DO NOT</b> apply more than 29.6 fl oz (0.485 lb ai) per acre per year.</li> <li>• <b>DO NOT</b> make repeat applications less than 14-days apart.</li> <li>• <b>DO NOT</b> use a crop oil concentrate as injury to flower and foliage may occur.</li> <li>• Aerial application to tree fruits is prohibited.</li> </ul>
<b>Potato</b>	30 days	<b>Annual Grasses:</b> 4.1-7.4 fl oz (0.068-0.121 lb ai)  <b>Perennial Grasses:</b> 5.5-14.8 fl oz (0.091-0.242 lb ai)	<b>Non-ionic Surfactant:</b> 0.25% v/v OR <b>Crop Oil Concentrate/ Methylated Seed Oil:</b> 1 qt/A or 1% v/v + <b>Ammonium Sulfate<sup>(4)</sup>:</b> 2.5-4 lb/A	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.  <b>RESTRICTIONS:</b> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 14.8 fl oz (0.242 lb ai) per acre per application.</li> <li>• <b>DO NOT</b> apply more than 2 applications per year.</li> <li>• <b>DO NOT</b> apply more than 29.6 fl oz (0.485 lb ai) per acre per year.</li> <li>• <b>DO NOT</b> make repeat applications less than 14-days apart.</li> </ul>



**CROP SPECIFIC USE INSTRUCTIONS AND RESTRICTIONS FOR CLETHODIM 2EC Herbicide<sup>2</sup>**

CROPS <sup>(1)</sup>	APPLICATION TIMING AND PRE-HARVEST INTERVAL (PHI)	USE RATES PER ACRE <sup>(2)</sup>	ADJUVANT RATES PER ACRE <sup>(3)</sup>	SPECIAL USE INSTRUCTIONS
<b>Radish</b> <b>Radish (leaves)</b>	15 days	<b>Annual Grasses:</b> 4.1-7.4 fl oz (0.068-0.121 lb ai)  <b>Perennial Grasses:</b> 5.5-7.4 fl oz (0.091-0.121 lb ai)	<b>Non-Ionic Surfactant:</b> 0.25% v/v	<b>RESTRICTIONS:</b> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 7.4 fl oz (0.121 lb ai) per acre per application.</li> <li>• <b>DO NOT</b> apply more than 2 applications per year.</li> <li>• <b>DO NOT</b> apply more than 14.8 fl oz (0.242 lb ai) per acre per year.</li> <li>• <b>DO NOT</b> make repeat applications less than 14-days apart.</li> </ul>
<b>Root Vegetables (except carrot, garden beet, radish, sugar beet) [(Crop Group 1B)]</b> <i>including:</i> Burdock (edible) Celeriac Chervil (turnip-rooted) Chicory Ginseng Horseradish Parsley (turnip-rooted) Parsnip Radish, Oriental Rutabaga Salsify Salsify, Black Salsify, Spanish Skirret Turnip	30 days	<b>Annual Grasses:</b> 4.1-7.4 fl oz (0.068-0.121 lb ai)  <b>Perennial Grasses:</b> 5.5-7.4 fl oz (0.091-0.121 lb ai)	<b>Non-Ionic Surfactant:</b> 0.25% v/v	<b>RESTRICTIONS:</b> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 7.4 fl oz (0.121 lb ai) per acre per application.</li> <li>• <b>DO NOT</b> apply more than 4 applications per year.</li> <li>• <b>DO NOT</b> apply more than 29.6 fl oz (0.485 lb ai) per acre per year.</li> <li>• <b>DO NOT</b> make repeat applications less than 14-days apart.</li> </ul>
<b>Safflower</b>	70 days	<b>Annual Grasses:</b> 4.1-7.4 fl oz (0.068-0.121 lb ai)  <b>Perennial Grasses:</b> 5.5-7.4 fl oz (0.091-0.121 lb ai)	<b>Non-Ionic Surfactant:</b> 0.25% v/v	<b>RESTRICTIONS:</b> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 7.4 fl oz (0.121 lb ai) per acre per application.</li> <li>• <b>DO NOT</b> apply more than 4 applications per year.</li> <li>• <b>DO NOT</b> apply more than 29.6 fl oz (0.485 lb ai) per acre per year.</li> <li>• <b>DO NOT</b> make repeat applications less than 14-days apart.</li> </ul>
<b>Sesame</b>	14 days	<b>Annual Grasses:</b> 4.1-7.4 fl oz (0.068-0.121 lb ai)  <b>Perennial Grasses:</b> 5.5-7.4 fl oz (0.091-0.121 lb ai)	<b>Non-Ionic Surfactant:</b> 0.25% v/v	<b>RESTRICTIONS:</b> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 7.4 fl oz (0.121 lb ai) per acre per application.</li> <li>• <b>DO NOT</b> apply more than 4 applications per year.</li> <li>• <b>DO NOT</b> apply more than 29.6 fl oz (0.485 lb ai) per acre per year.</li> <li>• <b>DO NOT</b> make repeat applications less than 14-days apart.</li> <li>• <b>DO NOT</b> apply during flowering.</li> </ul>

## CROP SPECIFIC USE INSTRUCTIONS AND RESTRICTIONS FOR CLETHODIM 2EC Herbicide<sup>2</sup>

CROPS <sup>(1)</sup>	APPLICATION TIMING AND PRE-HARVEST INTERVAL (PHI)	USE RATES PER ACRE <sup>(2)</sup>	ADJUVANT RATES PER ACRE <sup>(3)</sup>	SPECIAL USE INSTRUCTIONS
Soybean	60 days	<p><b>Annual Grasses:</b> 4.1-7.4 fl oz (0.068-0.121 lb ai)</p> <p><b>Perennial Grasses:</b> 5.5-14.8 fl oz (0.091-0.242 lb ai)</p>	<p><b>Non-Ionic Surfactant:</b> 0.25% v/v</p> <p>OR</p> <p><b>Crop Oil Concentrate/ Methylated Seed Oil:</b> 1 qt/A or 1 % v/v</p> <p>+</p> <p><b>Ammonium Sulfate<sup>(4)</sup>:</b> 2.5-4 lb/A</p>	<p>Refer to appropriate Table for reduced rates for the control of small annual grasses.</p> <p>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.</p> <p>Refer to tank mix partners for specific directions and restrictions.</p> <p><b>RESTRICTIONS:</b></p> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 14.8 fl oz (0.242 lb ai) per acre per application.</li> <li>• For annual grasses, <b>DO NOT</b> apply more than 4 applications per year.</li> <li>• For perennial grasses, <b>DO NOT</b> apply more than 2 applications per year.</li> <li>• <b>DO NOT</b> apply more than 29.6 fl oz (0.485 lb ai) per acre per year.</li> <li>• <b>DO NOT</b> make repeat applications less than 14-days apart.</li> <li>• For Reduced Rate Control of Small Annual Grasses: <b>DO NOT</b> apply more than 4 applications at 3.7 fl oz (0.061 lb ai) per acre per year.</li> <li>• <b>DO NOT</b> graze treated fields or feed treated forage or hay to livestock.</li> </ul>

**CROP SPECIFIC USE INSTRUCTIONS AND RESTRICTIONS FOR CLETHODIM 2EC Herbicide<sup>2</sup>**

CROPS <sup>(1)</sup>	APPLICATION TIMING AND PRE-HARVEST INTERVAL (PHI)	USE RATES PER ACRE <sup>(2)</sup>	ADJUVANT RATES PER ACRE <sup>(3)</sup>	SPECIAL USE INSTRUCTIONS
<p><b>Squash/ Cucumber [(Crop Group 9B)]</b>  <i>including:</i>                      Chayote (fruit)                      Chinese Waxgourd [(Chinese Preserving Melon)]                      Cucumber                      Gherkin                      Gourd (edible)                      Hyotan                      Cucuzza                      Hechima                      Chinese Okra  <i>Momordica</i> spp.                      Basalm Apple                      Basalm Pear                      Bitter Melon                      Chinese Cucumber                      Pumpkin                      Squash, Summer                      Crookneck                      Scallop                      Straightneck                      Vegetable Marrow                      Zucchini                      Squash, Winter                      Butternut                      Calabaza                      Hubbard                      Acorn                      Spaghetti</p>	<p align="center">14 days</p>	<p><b>Annual Grasses:</b>                      4.1-7.4 fl oz                      (0.068-0.121 lb ai)</p> <p><b>Perennial Grasses:</b>                      5.5-7.4 fl oz                      (0.091-0.121 lb ai)</p>	<p><b>Non-Ionic Surfactant:</b>                      0.25% v/v</p>	<p><b>RESTRICTIONS:</b></p> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 7.4 fl oz (0.121 lb ai) per acre per application.</li> <li>• <b>DO NOT</b> apply more than 4 applications per year.</li> <li>• <b>DO NOT</b> apply more than 29.6 fl oz (0.485 lb ai) per acre per year.</li> <li>• <b>DO NOT</b> make repeat applications less than 14-days apart.</li> </ul>
<p><b>Stalk and Stem Vegetables [(Crop Group 22A)][*]</b>  <i>including:</i>                      Agave                      Aloe Vera                      Asparagus                      Bamboo, Shoots                      Celuce                      Fennel, Florence (fresh leaves, stalk)                      Fiddlehead Fern (edible)                      Kale, Sea                      Kohlrabi                      Palm Hearts                      Prickly Pear (pads)                      Prickly Pear, Texas (pads)                      Cultivars, varieties, and/or hybrids of these.                      [*Not for use in [California][CA].]</p>	<p align="center">1 day</p>	<p><b>Annual Grasses:</b>                      4.1-7.4 fl oz                      (0.068-0.121 lb ai)</p> <p><b>Perennial Grasses:</b>                      5.5-7.4 fl oz                      (0.091-0.121 lb ai)</p>	<p><b>Non-Ionic Surfactant:</b>                      0.25% v/v</p>	<p><b>RESTRICTIONS:</b></p> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 7.4 fl oz (0.121 lb ai) per acre per application.</li> <li>• <b>DO NOT</b> apply more than 4 applications per year.</li> <li>• <b>DO NOT</b> apply more than 29.6 fl oz (0.485 lb ai) per acre per year.</li> <li>• <b>DO NOT</b> make repeat applications less than 14-days apart.</li> </ul>

**CROP SPECIFIC USE INSTRUCTIONS AND RESTRICTIONS FOR CLETHODIM 2EC Herbicide2**

CROPS <sup>(1)</sup>	APPLICATION TIMING AND PRE-HARVEST INTERVAL (PHI)	USE RATES PER ACRE <sup>(2)</sup>	ADJUVANT RATES PER ACRE <sup>(3)</sup>	SPECIAL USE INSTRUCTIONS
<b>Stevia (dried leaves)</b>	14 days	<b>Annual Grasses:</b> 4.1-7.4 fl oz (0.068-0.121 lb ai)  <b>Perennial Grasses:</b> 5.5-7.4 fl oz (0.091-0.121 lb ai)	<b>Non-Ionic Surfactant:</b> 0.25% v/v	This product has not been tested on all 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.  Verify Crop safety to <b>CLETHODIM 2EC Herbicide2</b> on a small area of the crop, at the desired <b>CLETHODIM 2EC Herbicide2</b> rate and with the same Non-ionic Surfactant (NIS) that will be used on the field. If no crop response is evident 7 days after treatment, <b>CLETHODIM 2EC Herbicide2</b> may be used on the entire field at the rate tested and with the same NIS used in the crop safety test.  <b>RESTRICTIONS:</b> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 7.4 fl oz (0.121 lb ai) per acre per application.</li> <li>• <b>DO NOT</b> apply more than 4 applications per year.</li> <li>• <b>DO NOT</b> apply more than 29.6 fl oz (0.485 lb ai) per acre per year.</li> <li>• <b>DO NOT</b> make repeat applications less than 14-days apart.</li> <li>• <b>DO NOT</b> use a crop oil concentrate as injury to flower and foliage may occur.</li> </ul>
<b>Stone Fruit [(Crop Group 12-12)]</b> <i>including:</i> Apricot Apricot, Japanese Capulin Cherry, Black Cherry, Nanking Cherry, Sweet Cherry, Tart Jujube, Chinese Nectarine Peach Plum Plum, American Plum, Beach Plum, Canada Plum, Cherry Plum, Chickasaw Plum, Damson Plum, Japanese Plum, Klamath Plum, Prune Plumcot Sloe  Cultivars, varieties, and/or hybrids of these.	14 days	<b>Annual Grasses:</b> 4.1-7.4 fl oz (0.068-0.121 lb ai)  <b>Perennial Grasses:</b> 5.5-7.4 fl oz (0.091-0.121 lb ai)	<b>Non-Ionic Surfactant:</b> 0.25% v/v	Refer to tank mix partners for specific directions and restrictions.  <b>RESTRICTIONS:</b> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 7.4 fl oz (0.121 lb ai) per acre per application.</li> <li>• <b>DO NOT</b> apply more than 4 applications per year.</li> <li>• <b>DO NOT</b> apply more than 29.6 fl oz (0.485 lb ai) per acre per year.</li> <li>• <b>DO NOT</b> make repeat applications less than 14-days apart.</li> <li>• <b>DO NOT</b> use a crop oil concentrate as injury to flower and foliage may occur.</li> <li>• Aerial application to tree fruits is prohibited.</li> </ul>

**CROP SPECIFIC USE INSTRUCTIONS AND RESTRICTIONS FOR CLETHODIM 2EC Herbicide<sup>2</sup>**

CROPS <sup>(1)</sup>	APPLICATION TIMING AND PRE-HARVEST INTERVAL (PHI)	USE RATES PER ACRE <sup>(2)</sup>	ADJUVANT RATES PER ACRE <sup>(3)</sup>	SPECIAL USE INSTRUCTIONS
Strawberry	4 days	<b>Annual Grasses:</b> 4.1-7.4 fl oz (0.068-0.121 lb ai)  <b>Perennial Grasses:</b> 5.5-7.4 fl oz (0.091-0.121 lb ai)	<b>Non-Ionic Surfactant:</b> 0.25% v/v	<b>RESTRICTIONS:</b> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 7.4 fl oz (0.121 lb ai) per acre per application.</li> <li>• <b>DO NOT</b> apply more than 4 applications per year.</li> <li>• <b>DO NOT</b> apply more than 29.6 fl oz (0.485 lb ai) per acre per year.</li> <li>• <b>DO NOT</b> make repeat applications less than 14-days apart.</li> </ul>
Sugar Beet	40 days	<b>Annual Grasses:</b> 4.1-7.4 fl oz (0.068-0.121 lb ai)  <b>Perennial Grasses:</b> 5.5-14.8 fl oz (0.091-0.242 lb ai)	<b>Non-Ionic Surfactant:</b> 0.25% v/v OR <b>Crop Oil Concentrate/ Methylated Seed Oil:</b> 1 qt/A or 1 % v/v + <b>Ammonium Sulfate<sup>(4)</sup>:</b> 2.5-4 lb/A	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.  Refer to tank mix partners for specific directions and restrictions.  <b>RESTRICTIONS:</b> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 14.8 fl oz (0.242 lb ai) per acre per application.</li> <li>• For annual grasses, <b>DO NOT</b> apply more than 4 applications per year.</li> <li>• For perennial grasses, <b>DO NOT</b> apply more than 2 applications per year.</li> <li>• <b>DO NOT</b> apply more than 29.6 fl oz (0.485 lb ai) per acre per year.</li> <li>• For Reduced Rate Control of Small Annual Grasses: <b>DO NOT</b> apply more than 4 applications at 3.7 fl oz (0.061 lb ai) per acre per year.</li> <li>• <b>DO NOT</b> make repeat applications less than 14-days apart.</li> </ul>

## CROP SPECIFIC USE INSTRUCTIONS AND RESTRICTIONS FOR CLETHODIM 2EC Herbicide<sup>2</sup>

CROPS <sup>(1)</sup>	APPLICATION TIMING AND PRE-HARVEST INTERVAL (PHI)	USE RATES PER ACRE <sup>(2)</sup>	ADJUVANT RATES PER ACRE <sup>(3)</sup>	SPECIAL USE INSTRUCTIONS
<p><b>Sunflower [(Crop Group 20B)]</b>  <i>including:</i>                      Calendula                      Castor Oil Plant                      Chinese Tallowtree                      Euphorbia                      Evening Primrose                      Jojoba                      Niger Seed                      Rose Hip                      Safflower                      Stokes Aster                      Sunflower                      Tallowwood                      Tea Oil Plant                      Vernonia</p> <p>Cultivars, varieties, and/or hybrids of these.</p>	<p style="text-align: center;">70 days</p>	<p><b>Annual Grasses:</b>                      4.1-7.4 fl oz                      (0.068-0.121 lb ai)</p> <p><b>Perennial Grasses:</b>                      5.5-14.8 fl oz                      (0.091-0.242 lb ai)</p>	<p><b>Non-ionic Surfactant:</b>                      0.25% v/v</p> <p style="text-align: center;">OR</p> <p><b>Crop Oil Concentrate/                      Methylated Seed Oil:</b>                      1 qt/A                      or                      1 % v/v</p> <p style="text-align: center;">+</p> <p><b>Ammonium Sulfate<sup>(4)</sup>:</b>                      2.5-4 lb/A</p>	<p>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.</p> <p>Verify Crop safety to <b>CLETHODIM 2EC Herbicide<sup>2</sup></b> on a small area of the crop, at the desired <b>CLETHODIM 2EC Herbicide<sup>2</sup></b> rate and with the same Non-ionic Surfactant (NIS) that will be used on the field. If no crop response is evident 7 days after treatment, <b>CLETHODIM 2EC Herbicide<sup>2</sup></b> may be used on the entire field at the rate tested and with the same NIS used in the crop safety test.</p> <p>Refer to tank mix partners for specific directions and restrictions.</p> <p><b>RESTRICTIONS:</b></p> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 14.8 fl oz (0.242 lb ai) per acre per application.</li> <li>• For annual grasses, <b>DO NOT</b> apply more than 4 applications per year.</li> <li>• For perennial grasses, <b>DO NOT</b> apply more than 2 applications per year.</li> <li>• <b>DO NOT</b> apply more than 29.6 fl oz (0.485 lb ai) per acre per year.</li> <li>• For Reduced Rate Control of Small Annual Grasses: <b>DO NOT</b> apply more than 4 applications at 3.7 fl oz (0.061 lb ai) per acre per year.</li> <li>• <b>DO NOT</b> make repeat applications less than 14-days apart.</li> </ul>
<p><b>Tomato</b></p>	<p style="text-align: center;">20 days</p>	<p><b>Annual Grasses:</b>                      4.1-7.4 fl oz                      (0.068-0.121 lb ai)</p> <p><b>Perennial Grasses:</b>                      5.5-14.8 fl oz                      (0.091-0.242 lb ai)</p>	<p><b>Non-ionic Surfactant:</b>                      0.25% v/v</p>	<p><b>RESTRICTIONS:</b></p> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 14.8 fl oz (0.242 lb ai) per acre per application.</li> <li>• For annual grasses, <b>DO NOT</b> apply more than 4 applications per year.</li> <li>• For perennial grasses, <b>DO NOT</b> apply more than 2 applications per year.</li> <li>• <b>DO NOT</b> apply more than 29.6 fl oz (0.485 lb ai) per acre per year.</li> <li>• <b>DO NOT</b> make repeat applications less than 14-days apart.</li> </ul>

**CROP SPECIFIC USE INSTRUCTIONS AND RESTRICTIONS FOR CLETHODIM 2EC Herbicide<sup>2</sup>**

CROPS <sup>(1)</sup>	APPLICATION TIMING AND PRE-HARVEST INTERVAL (PHI)	USE RATES PER ACRE <sup>(2)</sup>	ADJUVANT RATES PER ACRE <sup>(3)</sup>	SPECIAL USE INSTRUCTIONS
<p><b>Tree Nuts [(Crop Group 14-12)][*]</b>  <i>including:</i>                      African Nut-Tree                      Almond                      Beechnut                      Brazil Nut                      Brazilian Pine                      Bunya                      Bur Oak                      Butternut                      Cajou Nut                      Candlenut                      Cashew                      Chestnut                      Chinquapin                      Coconut                      Coquito Nut                      Dika Nut                      Ginkgo                      Guiana Chestnut                      Hazelnut (Filbert)                      Heartnut                      Hickory Nut                      Japanese Horse-Chestnut                      Macadamia Nut                      Mongongo Nut                      Monkey-Pot                      Monkey Puzzle Nut                      Okari Nut                      Pachira Nut                      Peach Palm Nut                      Pecan                      Pequi                      Pili Nut                      Pine Nut                      Pistachio                      Sapucaia Nut                      Tropical Almond                      Walnut, Black                      Walnut, English                      Yellowhorn                      Cultivars, varieties, and/or hybrids of these.                      [*Not for use in [California][CA].]</p>	<p align="center">14 days</p>	<p><b>Annual Grasses:</b>                      4.1-14.8 fl oz                      (0.068-0.242 lb ai)</p> <p><b>Perennial Grasses:</b>                      5.5-14.8 fl oz                      (0.091-0.242 lb ai)</p>	<p><b>Non-Ionic Surfactant:</b>                      0.25% v/v</p>	<p><b>RESTRICTIONS:</b></p> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 14.8 fl oz (0.242 lb ai) per acre per application.</li> <li>• [In California, <b>DO NOT</b> apply more than 7.4 fl oz (0.121 lb ai) per acre per application.]</li> <li>• <b>DO NOT</b> apply more than 4 applications per year.</li> <li>• <b>DO NOT</b> apply more than 59.1 fl oz (0.97 lb ai) per acre per year.</li> <li>• <b>DO NOT</b> make repeat applications less than 14-days apart.</li> <li>• <b>DO NOT</b> use a crop oil concentrate as injury to flower and foliage may occur.</li> <li>• Aerial application to tree nuts is prohibited.</li> </ul>

## CROP SPECIFIC USE INSTRUCTIONS AND RESTRICTIONS FOR CLETHODIM 2EC Herbicide<sup>2</sup>

CROPS <sup>(1)</sup>	APPLICATION TIMING AND PRE-HARVEST INTERVAL (PHI)	USE RATES PER ACRE <sup>(2)</sup>	ADJUVANT RATES PER ACRE <sup>(3)</sup>	SPECIAL USE INSTRUCTIONS
<b>Tuberous and Corm Vegetables (except potato) [(Crop Group 1C)][*]</b> <i>including:</i> [Arracacha] [Arrowroot] Artichoke, Chinese Artichoke, Jerusalem [Canna (edible)] Cassava, Bitter Cassava, Sweet Chayote (Root) [Chufa] [Dasheen] Ginger [Leren] Sweet Potato [Tanier] [Turmeric] [Yam Bean] Yam, True  [*Not for use in [California][CA].]	30 days	<b>Annual Grasses:</b> 4.1-7.4 fl oz (0.068-0.121 lb ai)  <b>Perennial Grasses:</b> 5.5-14.8 fl oz (0.091-0.242 lb ai)	<b>Non-Ionic Surfactant:</b> 0.25% v/v	<b>RESTRICTIONS:</b> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 14.8 fl oz (0.242 lb ai) per acre per application.</li> <li>• For annual grasses, <b>DO NOT</b> apply more than 4 applications per year.</li> <li>• For perennial grasses, <b>DO NOT</b> apply more than 2 applications per year.</li> <li>• <b>DO NOT</b> apply more than 29.6 fl oz (0.485 lb ai) per acre per year.</li> <li>• <b>DO NOT</b> make repeat applications less than 14-days apart.</li> </ul>
<b>Turnip Greens</b>	14 days	<b>Annual Grasses:</b> 4.1-7.4 fl oz (0.068-0.121 lb ai)  <b>Perennial Grasses:</b> 5.5-7.4 fl oz (0.091-0.121 lb ai)	<b>Non-Ionic Surfactant:</b> 0.25% v/v	<b>RESTRICTIONS:</b> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 7.4 fl oz (0.121 lb ai) per acre per application.</li> <li>• <b>DO NOT</b> apply more than 4 applications per year.</li> <li>• <b>DO NOT</b> apply more than 29.6 fl oz (0.485 lb ai) per acre per year.</li> <li>• <b>DO NOT</b> make repeat applications less than 14-days apart.</li> </ul>
<b>Watercress[*]</b>  [*Not for use in [California][CA].]	30 days	<b>Annual Grasses:</b> 4.1-7.4 fl oz (0.068-0.121 lb ai)  <b>Perennial Grasses:</b> 5.5-7.4 fl oz (0.091-0.121 lb ai)	<b>Non-Ionic Surfactant:</b> 0.25% v/v	<b>RESTRICTIONS:</b> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 7.4 fl oz (0.121 lb ai) per acre per application.</li> <li>• <b>DO NOT</b> apply more than 4 applications per year.</li> <li>• <b>DO NOT</b> apply more than 29.6 fl oz (0.485 lb ai) per acre per year.</li> <li>• <b>DO NOT</b> make repeat applications less than 14-days apart.</li> <li>• <b>DO NOT</b> apply when watercress is under flood conditions.</li> <li>• <b>DO NOT</b> apply this product when water is in the field and hold water for at least 24 hours after an application.</li> </ul>

N/A – Not Applicable

- (1) **CLETHODIM 2EC Herbicide<sup>2</sup>** is not for use on vegetable crops being grown for seed production unless specific use directions are provided.
- (2) See annual and perennial grass control tables for specific use rates.
- (3) Non-ionic surfactant (NIS) in this case refers to an adjuvant containing at least 80% non-ionic surfactant. Crop oil concentrate in this case refers to both crop oil concentrate and crop oil concentrate blends. Acceptable crop oil concentrates would be those that contain a minimum of 80% oils and 15% emulsifier. Acceptable crop oil concentrate blends would be those that



contain a minimum of 60% oils and 25-40% surfactants and emulsifiers. 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. This product may be applied to seedling or established alfalfa grown for seed, hay, silage, green chop or direct grazing.

(4) Use spray grade ammonium sulfate. The use of ammonium sulfate does not take the place of the required adjuvant.

### IMPORTANT

Plant resistance to **CLETHODIM 2EC Herbicide2** at labeled rates has been found to be acceptable for the indicated genera and species listed below. Due to variability within species, crop growth stage, environmental conditions, and application techniques, it is advised that the user determine if the herbicide can be used safely on a few plants prior to widespread application. Neither the seller nor the manufacturer of **CLETHODIM 2EC Herbicide2** have investigated the safety factor to plants not listed on this label.

### INSTRUCTIONS FOR ANNUAL GRASSES (EXCEPT FOR IN ESTABLISHED ALFALFA AND MINT (PEPPERMINT, TOPS & SPEARMINT, TOPS))

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

**RESTRICTIONS:**

- **DO NOT** exceed the maximum rate per application listed in the CROP SPECIFIC INSTRUCTIONS AND RESTRICTIONS table.
- **DO NOT** exceed the maximum rate per year listed in the CROP SPECIFIC INSTRUCTIONS AND RESTRICTIONS table.
- **DO NOT** exceed the maximum number of applications per year listed in the CROP SPECIFIC INSTRUCTIONS AND RESTRICTIONS table.

GRASS SPECIES	SCIENTIFIC NAME	WEED HEIGHT* (inches)	RATE FL OZ/A	HIGH RATE <sup>(1)</sup>
Barnyardgrass	<i>Echinochloa crus-galli</i>	2 to 8	4.1 (0.068 lb ai)	7.4 (0.121 lb ai)
Broadleaf Signalgrass	<i>Brachiaria platyphylla</i>	2 to 6	4.1 (0.068 lb ai)	7.4 (0.121 lb ai)
<b>Brome</b>				
California	<i>Bromus carinatus</i>	2 to 6	4.1 (0.068 lb ai)	7.4 (0.121 lb ai)
Cheat	<i>Bromus secalinus</i>	2 to 6	4.1 (0.068 lb ai)	7.4 (0.121 lb ai)
Downy	<i>Bromus tectorum</i>	2 to 6	4.1 (0.068 lb ai)	7.4 (0.121 lb ai)
Ripgut	<i>Bromus diandrus</i>	2 to 6	4.1 (0.068 lb ai)	7.4 (0.121 lb ai)
Canarygrass	<i>Phalaris canariensis</i>	1 to 4	4.1 (0.068 lb ai)	7.4 (0.121 lb ai)
<b>Crabgrass</b>				
Hairy	<i>Digitaria adscendens</i>	2 to 6**	4.1 (0.068 lb ai)	7.4 (0.121 lb ai)
Large	<i>Digitaria sanguinalis</i>	2 to 6**	4.1 (0.068 lb ai)	7.4 (0.121 lb ai)
Smooth	<i>Digitaria ischaemum</i>	2 to 6**	4.1 (0.068 lb ai)	7.4 (0.121 lb ai)
Southern	<i>Digitaria ciliaris</i>	2 to 6**	4.1 (0.068 lb ai)	7.4 (0.121 lb ai)
Crowfootgrass	<i>Dactyloctenium aegyptium</i>	2 to 6**	4.1 (0.068 lb ai)	7.4 (0.121 lb ai)
Fall Panicum	<i>Panicum dichotomiflorum</i>	2 to 8	4.1 (0.068 lb ai)	7.4 (0.121 lb ai)
Field Sandbur	<i>Cenchrus incertus</i>	2 to 6	4.1 (0.068 lb ai)	7.4 (0.121 lb ai)
<b>Foxtail</b>				
Giant	<i>Setaria faberi</i>	2 to 12	4.1 (0.068 lb ai)	7.4 (0.121 lb ai)
Green	<i>Setaria viridis</i>	2 to 8	4.1 (0.068 lb ai)	7.4 (0.121 lb ai)
Yellow	<i>Setaria glauc</i>	2 to 8	4.1 (0.068 lb ai)	7.4 (0.121 lb ai)
Goosegrass	<i>Eleusine indica</i>	2 to 6**	4.1 (0.068 lb ai)	7.4 (0.121 lb ai)
Itchgrass	<i>Rottboellia cochinchinensis</i>	2 to 6	4.1 (0.068 lb ai)	7.4 (0.121 lb ai)
Junglerice	<i>Echinochloa colona</i>	2 to 6	4.1 (0.068 lb ai)	7.4 (0.121 lb ai)

GRASS SPECIES	SCIENTIFIC NAME	WEED HEIGHT* (inches)	RATE FL OZ/A	HIGH RATE <sup>(1)</sup>
Lovegrass (Stinkgrass)	<i>Eragrostis ciliaris</i>	2 to 6	4.1 (0.068 lb ai)	7.4 (0.121 lb ai)
Rabbitsfootgrass	<i>Polypogon monspeliensis</i>	1 to 4	4.1 (0.068 lb ai)	7.4 (0.121 lb ai)
Red Rice	<i>Oryza sativa</i>	1 to 3	4.1 (0.068 lb ai)	7.4 (0.121 lb ai)
Ryegrass				
Hardy	<i>Lolium remotum</i>	2 to 6	4.1 (0.068 lb ai)	7.4 (0.121 lb ai)
Italian***	<i>Lolium multiflorum</i>	2 to 6	4.1 (0.068 lb ai)	7.4 (0.121 lb ai)
Seedling Johnsongrass***	<i>Sorghum halepense</i>	4 to 10	4.1 (0.068 lb ai)	7.4 (0.121 lb ai)
Shattercane	<i>Sorghum bicolor</i>	6 to 18	4.1 (0.068 lb ai)	7.4 (0.121 lb ai)
Southwestern Cupgrass	<i>Eriochloa gracilis</i>	2 to 6	4.1 (0.068 lb ai)	7.4 (0.121 lb ai)
Sprangle top				
Amazon	<i>Leptochloa panicoides</i>	2 to 6	4.1 (0.068 lb ai)	7.4 (0.121 lb ai)
Bearded	<i>Leptochloa fascicularis</i>	2 to 6	4.1 (0.068 lb ai)	7.4 (0.121 lb ai)
Mexican	<i>Leptochloa uninervis</i>	2 to 6	4.1 (0.068 lb ai)	7.4 (0.121 lb ai)
Red	<i>Leptochloa filiformis</i>	2 to 6	4.1 (0.068 lb ai)	7.4 (0.121 lb ai)
Texas Panicum	<i>Panicum texanum</i>	2 to 6	4.1 (0.068 lb ai)	7.4 (0.121 lb ai)
Volunteer Cereals <sup>(3)</sup>				
Barley	<i>Hordeum vulgare</i>	2 to 6	4.1 (0.068 lb ai)	7.4 (0.121 lb ai)
Oats	<i>Avena sativa</i>	2 to 6	4.1 (0.068 lb ai)	7.4 (0.121 lb ai)
Rye	<i>Secale cereale</i>	2 to 6	4.1 (0.068 lb ai)	7.4 (0.121 lb ai)
Wheat <sup>(2)</sup>	<i>Triticum aestivum</i>	2 to 6	4.1 (0.068 lb ai)	7.4 (0.121 lb ai)
Volunteer Corn <sup>(2,3)</sup>	<i>Zea mays</i>	4 to 12	2.7 (0.045 lb ai)	5.5 (0.091 lb ai)
Volunteer Corn <sup>(3)</sup>	<i>Zea mays</i>	12 to 24	4.1 (0.068 lb ai)	6.5 (0.106 lb ai)
Volunteer Corn <sup>(2,3)</sup>	<i>Zea mays</i>	24 to 36	5.5 (0.091 lb ai)	7.4 (0.121 lb ai)
Volunteer Grain Sorghum	<i>Sorghum bicolor</i>	8 to 12	4.1 (0.068 lb ai)	7.4 (0.121 lb ai)
Wild Oats	<i>Avena fatua</i>	2 to 6	4.1 (0.068 lb ai)	7.4 (0.121 lb ai)
Wild Proso Millet	<i>Panicum miliaceum</i>	2 to 10	4.1 (0.068 lb ai)	7.4 (0.121 lb ai)
Witchgrass	<i>Panicum capillare</i>	2 to 8	4.1 (0.068 lb ai)	7.4 (0.121 lb ai)
Woolly Cupgrass	<i>Eriochloa villosa</i>	2 to 8	4.1 (0.068 lb ai)	7.4 (0.121 lb ai)

\* Generally occurs between 3-leaf stage and tillering.

\*\* Length of lateral growth.

\*\*\* Non-ACC resistant.

- (1) Rates higher than 7.4 fl oz (0.121 lb ai) per acre may be applied in certain geographic areas, cropping situations, or environmental conditions, where experience has shown that higher rates are needed for satisfactory control of annual grasses. In these situations, rates from 7.4 to 14.8 fl oz (0.121 to 0.242 lb ai) per acre may be applied.
- (2) When a cereal grain crop (including wheat) is interseeded for crop establishment or is planted as wind breaks to aid crop establishment, the minimum **CLETHODIM 2EC Herbicide2** use rate for control is 5.5 fl oz (0.091 lb ai) per acre.
- (3) Includes glyphosate, glufosinate, and imidazoline resistant corn. Does not include sethoxydim-resistant corn.

### INSTRUCTIONS FOR ANNUAL & PERENNIAL GRASS CONTROL IN ESTABLISHED ALFALFA AND MINT (PEPPERMINT, TOPS & SPEARMINT, TOPS) WITH CLETHODIM 2EC Herbicide2

#### RESTRICTIONS:

- **DO NOT** exceed the maximum rate per application listed in the CROP SPECIFIC INSTRUCTIONS AND RESTRICTIONS table.
- **DO NOT** exceed the maximum rate per year listed in the CROP SPECIFIC INSTRUCTIONS AND RESTRICTIONS table.
- **DO NOT** exceed the maximum number of applications per year listed in the CROP SPECIFIC INSTRUCTIONS AND RESTRICTIONS table.

GRASS SPECIES	WEED STAGE	RATE
See Instructions for Annual Grasses (Except for in Established Alfalfa and	See Instructions for Annual Grasses (Except for in Established Alfalfa and	See <b>CROP SPECIFIC USE INSTRUCTIONS AND</b>

Mint) Table and Instructions for Perennial Grasses Table	Mint) Table and Instructions for Perennial Grasses Table	<b>RESTRICTIONS FOR CLETHODIM 2EC Herbicide2 Table</b>
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**Mowing:** Achieving the best control of annual grasses can be made by applying **CLETHODIM 2EC Herbicide2** 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 2EC Herbicide2** for partial or complete control.

**Irrigated Alfalfa and Mint:** Irrigation practices can be very critical to the successful use of **CLETHODIM 2EC Herbicide2** 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 an 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 2EC Herbicide2** in a minimum of 10 GPA.

**Annual Grass Control:** Make application at the grass sizes indicated in the Instructions for Annual Grass Table and rates indicated. If a grass has been cut, make application 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 2EC Herbicide2** 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, including frost, slower plant growth, or the onset of flowering.

**Perennial Grass Control:** **CLETHODIM 2EC Herbicide2** effectively controls perennial grasses, including Bermudagrass, Johnsongrass, quackgrass, wirestem muhly, tall fescue, foxtail barley and orchardgrass. Due in part to lack of tillage, perennial grasses are more difficult to control in a perennial crop, including 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.

### INSTRUCTIONS FOR ANNUAL BLUEGRASS CONTROL WITH CLETHODIM 2EC Herbicide2

#### RESTRICTIONS:

- **DO NOT** exceed the maximum rate per application listed in the CROP SPECIFIC INSTRUCTIONS AND RESTRICTIONS table.
- **DO NOT** exceed the maximum rate per year listed in the CROP SPECIFIC INSTRUCTIONS AND RESTRICTIONS table.
- **DO NOT** exceed the maximum number of applications per year listed in the CROP SPECIFIC INSTRUCTIONS AND RESTRICTIONS table.

GRASS SPECIES	WEED STAGE	RATE FL/OZ/A	HIGH RATE
Annual Bluegrass ( <i>Poa annua</i> )	to 4-leaf	5.5* (0.091 lb ai)	14.8 (0.242 lb ai)

Apply under favorable soil moisture and humidity, which exists within a few days after rainfall or within 7 days after irrigation. Grass needs to be actively growing at time of application(s).

Apply at weed stage indicated on the label, as reduced control can be expected with more mature annual bluegrass.

Use the high rate under heavy grass pressure and/or when annual bluegrass is more mature.

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

\* Use a minimum of 7.9 fl oz (0.129 lb ai) per acre to control annual bluegrass in seedling and established alfalfa and mint.

**INSTRUCTIONS FOR USE IN GLYPHOSATE RESISTANT FIELD CORN (BURNDOWN) FOR REPLANTING OR CLEANUP**

**RESTRICTIONS:**

- **DO NOT** exceed the maximum rate per application listed in the CROP SPECIFIC INSTRUCTIONS AND RESTRICTIONS table.
- **DO NOT** exceed the maximum rate per year listed in the CROP SPECIFIC INSTRUCTIONS AND RESTRICTIONS table.
- **DO NOT** exceed the maximum number of applications per year listed in the CROP SPECIFIC INSTRUCTIONS AND RESTRICTIONS table.

GRASS SPECIES	WEED STAGE	RATE FL/OZ/A (when applied alone or with glyphosate)
Field Corn	Up to 12	2.7 fl oz (0.045 lb ai)

For control of existing stand of glyphosate resistant field corn or volunteer glyphosate resistant 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 rates: Non-ionic Surfactant (NIS) at 0.25% v/v plus AMS at 2.5 to 4 lb/A.

**INSTRUCTIONS FOR REDUCED RATE CONTROL OF SMALL ANNUAL GRASSES IN CANOLA, DRY SHELLED BEAN & PEA (INCLUDING SOYBEAN), EDIBLE PODEDDED LEGUME VEGETABLES, FLAX, MUSTARD SEED, SUCCULENT BEAN & PEA, SUGAR BEET AND SUNFLOWER [(REDUCED RATE INSTRUCTIONS NOT FOR USE IN [CALIFORNIA][CA])]**

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

**RESTRICTIONS:**

- **DO NOT** exceed the maximum rate per application listed in the CROP SPECIFIC INSTRUCTIONS AND RESTRICTIONS table for canola, dry shelled bean & pea (including soybean), edible podded legume vegetables, flax, mustard seed, succulent bean & pea, and sugar beet.
- **DO NOT** exceed the maximum rate per year listed in the CROP SPECIFIC INSTRUCTIONS AND RESTRICTIONS table for canola, dry shelled bean & pea (including soybean), edible podded legume vegetables, flax, mustard seed, succulent bean & pea, and sugar beet.
- **DO NOT** exceed the maximum number of applications per year listed in the CROP SPECIFIC INSTRUCTIONS AND RESTRICTIONS table for canola, dry shelled bean & pea (including soybean), edible podded legume vegetables, flax, mustard seed, succulent bean & pea, and sugar beet.

GRASS SPECIES	SCIENTIFIC NAME	WEED HEIGHT (Inches)	RATE FL OZ/A <sup>1</sup>
Barnyardgrass	<i>Echinochloa crus-galli</i>	1 to 4	2.7 (0.045 lb ai)
Broadleaf Signalgrass	<i>Brachiaria platyphylla</i>	1 to 4	3.7 (0.061 lb ai)
Crabgrass			
Large	<i>Digitaria sanguinalis</i>	1 to 3*	2.7 (0.045 lb ai)
Large	<i>Digitaria sanguinalis</i>	1 to 4*	3.7 (0.061 lb ai)
Smooth	<i>Digitaria ischaemum</i>	1 to 3*	2.7 (0.045 lb ai)
Smooth	<i>Digitaria ischaemum</i>	1 to 4*	3.7 (0.061 lb ai)
Southern	<i>Digitaria ciliaris</i>	1 to 4*	3.7 (0.061 lb ai)

GRASS SPECIES	SCIENTIFIC NAME	WEED HEIGHT (Inches)	RATE FL OZ/A <sup>1</sup>
Fall Panicum	<i>Panicum dichotomiflorum</i>	1 to 4	2.7 (0.045 lb ai)
Foxtail			
Giant	<i>Setaria faberi</i>	1 to 4	2.7 (0.045 lb ai)
Green	<i>Setaria viridis</i>	1 to 4	2.7 (0.045 lb ai)
Millet	<i>Setaria italica</i>	1 to 4	3.7 (0.061 lb ai)
Yellow	<i>Setaria glauca</i>	1 to 4	2.7 (0.045 lb ai)
Seedling Johnsongrass <sup>***</sup>	<i>Sorghum halepense</i>	1 to 6	3.7 (0.061 lb ai)
Shattercane	<i>Sorghum bicolor</i>	4 to 10	2.7 (0.045 lb ai)
Texas Panicum	<i>Panicum texanum</i>	1 to 4	3.7 (0.061 lb ai)
Volunteer Cereals			
Barley	<i>Hordeum vulgare</i>	1 to 4	3.7 (0.061 lb ai)
Oats	<i>Avena sativa</i>	1 to 4	3.7 (0.061 lb ai)
Wheat	<i>Triticum aestivum</i>	1 to 4	3.7 (0.061 lb ai)
Volunteer Corn <sup>**</sup> , <sup>***</sup>	<i>Zea Mays</i>	4 to 12	2.7 (0.045 lb ai)
Wild Proso Millet	<i>Panicum miliaceum</i>	1 to 6	2.7 (0.045 lb ai)
Wild Oats	<i>Avena fatua</i>	1 to 4	3.7 (0.061 lb ai)

\* Length of lateral growth.

\*\* Not S.R. Corn.

\*\*\* Non-ACC resistant.

1 Always add a non-ionic surfactant at 0.25% v/v total spray volume unless crop specific restrictions and limitations advise otherwise.

### INSTRUCTIONS FOR PERENNIAL GRASSES

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

### RESTRICTIONS:

- **DO NOT** exceed the maximum rate per application listed in the CROP SPECIFIC INSTRUCTIONS AND RESTRICTIONS table.
- **DO NOT** exceed the maximum rate per year listed in the CROP SPECIFIC INSTRUCTIONS AND RESTRICTIONS table.
- **DO NOT** exceed the maximum number of applications per year listed in the CROP SPECIFIC INSTRUCTIONS AND RESTRICTIONS table.

GRASS SPECIES <sup>1</sup>	WEED HEIGHT (inches)	MINIMUM RATE FL OZ/A	MAXIMUM RATE <sup>2</sup> FL OZ/A
Bermudagrass ( <i>Cynodon dactylon</i> )			
First Application	3 (or up to 6" runners)	5.5 (0.091 lb ai)	14.8 (0.242 lb ai)
Repeat Application(s) (if regrowth occurs)	3 (or up to 6" runners)	5.5 (0.091 lb ai)	14.8 (0.242 lb ai)
Fescue, Tall ( <i>Festuca arundinacea</i> )			
First Application	4 to 8	5.5 (0.091 lb ai)	14.8 (0.242 lb ai)
Repeat Application(s) (if regrowth occurs)	4 to 8	5.5 (0.091 lb ai)	14.8 (0.242 lb ai)
Foxtail Barley ( <i>Hordeum jubatum</i> )			
First Application	2 to 6	5.5 (0.091 lb ai)	14.8 (0.242 lb ai)
Repeat Application(s) (if regrowth occurs)	2 to 6	5.5 (0.091 lb ai)	14.8 (0.242 lb ai)
Orchardgrass ( <i>Dactylis glomerata</i> )			
First Application	4 to 8	5.5 (0.091 lb ai)	14.8 (0.242 lb ai)
Repeat Application(s) (if regrowth occurs)	4 to 8	5.5 (0.091 lb ai)	14.8 (0.242 lb ai)
Quackgrass ( <i>Elytrigia repens</i> )			
First Application	4 to 12	5.5 (0.091 lb ai)	14.8 (0.242 lb ai)
Repeat Application(s) (if regrowth occurs)	4 to 12	5.5 (0.091 lb ai)	14.8 (0.242 lb ai)
Rhizome Johnsongrass* ( <i>Sorghum halepense</i> )			

GRASS SPECIES <sup>1</sup>	WEED HEIGHT (inches)	MINIMUM RATE FL OZ/A	MAXIMUM RATE <sup>2</sup> FL OZ/A
First Application	12 to 24	5.5 (0.091 lb ai)	14.8 (0.242 lb ai)
Repeat Application(s) (if regrowth occurs)	6 to 18	4.1 (0.068 lb ai)	11.1 (0.182 lb ai)
<i>Wirestem Muhly (Muhlenbergia frondosa)</i>			
First Application	4 to 8	5.5 (0.091 lb ai)	14.8 (0.242 lb ai)
Repeat Application(s) (if regrowth occurs)	4 to 8	5.5 (0.091 lb ai)	14.8 (0.242 lb ai)
Perennial Bluegrass Roughstalk ( <i>Poa trivialis</i> ) Kentucky ( <i>Poa prantensis</i> )			
First Application	2 to 4	5.5 (0.091 lb ai)	14.8 (0.242 lb ai)
Repeat Application(s) (if regrowth occurs)	2 to 4	5.5 (0.091 lb ai)	14.8 (0.242 lb ai)
Bentgrass ( <i>Agrostis</i> spp.)			
First Application	2 to 4	-	14.8 (0.242 lb ai)
Repeat Application(s) (if regrowth occurs)	2 to 4	-	14.8 (0.242 lb ai)

\* non-ACC resistant.

<sup>1</sup> Control of quackgrass, perennial bluegrass and bentgrass with this product may be enhanced by adding AMS at 2.5 to 4.0 lb/A.

<sup>2</sup> Use the higher rate under heavy grass pressure and/or when grasses are at maximum height. Follow the use rate restrictions in the **CROP SPECIFIC INSTRUCTIONS AND RESTRICTIONS** table before applying higher rates.

### TANK-MIXES INFORMATION

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

The labels for each of the herbicides specified for tank-mixing with CLETHODIM 2EC Herbicide2 are unique to the characteristics of those products and contain restrictions and limitations that may be more restrictive than CLETHODIM 2EC Herbicide2 in certain considerations. Those concerns may include, but are not limited to:

1. Geographic restrictions (all products are not registered for use in all areas and rates may vary from one region of labeled use to another);
2. Crop rotation restrictions;
3. Applicator certification requirements;
4. Worker safety rules (e.g., personal protective equipment (PPE), reentry time, posting);
5. Soil characteristics or soil type (e.g., pH, OM);
6. Number of applications and or maximum dosage per year;
7. Rain free period required; or
8. Application timing (e.g., pre-harvest interval);
9. Total annual rates not to be exceeded.

**ALWAYS FOLLOW THE MOST RESTRICTIVE LABELING OF ANY PRODUCT USED IN A TANK-MIX.**

#### RESTRICTIONS:

- **DO NOT** exceed the maximum rate per application listed in the CROP SPECIFIC INSTRUCTIONS AND RESTRICTIONS table.
- **DO NOT** exceed the maximum rate per year listed in the CROP SPECIFIC INSTRUCTIONS AND RESTRICTIONS table.
- **DO NOT** exceed the maximum number of applications per year listed in the CROP SPECIFIC INSTRUCTIONS AND RESTRICTIONS table.

#### TANK-MIX APPLICATION OF CLETHODIM 2EC Herbicide2 AND BROADLEAF HERBICIDES FOR CONTROL OF GRASSES AND BROADLEAF WEEDS

- Make application only to actively growing grass and broadleaf weeds at specified height or growth stage listed on each label.

- Make application when the first grass or broadleaf weed species in a mixed population reaches the specified 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 specified 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 2EC Herbicide2** as specified in the respective size and rate tables.
- **DO NOT** tank-mix **CLETHODIM 2EC Herbicide2** when broadleaf weeds are tall and/or dense enough to prevent proper grass coverage.

#### MIXING INSTRUCTIONS

1. Fill clean spray tank 1/2 to 2/3 of desired level with clean water. While agitating, add the correct amount of **CLETHODIM 2EC Herbicide2**, making sure that agitation makes a rippling or rolling action on the water surface.
2. When tank-mixing this product with other labeled herbicides, add water-soluble bags first, followed by dry formulations, flowables, emulsifiable concentrates and then solutions. Prepare no more spray mixture than is required for the immediate spray operation.
3. Add any required adjuvants (crop oil concentrate, nonionic surfactant and/or nitrogen solution).
4. Fill spray tank to desired level with water.
5. Continue agitation until all spray solution has been applied.

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

#### ANTAGONISM INFORMATION

Tank-mixes of **CLETHODIM 2EC Herbicide2** with postemergence broadleaf herbicides have shown some reduction or failure to control certain grass species, which would have otherwise been controlled by **CLETHODIM 2EC Herbicide2** alone. Activity of the postemergence broadleaf herbicide in the tank-mix is not affected.

### ALFALFA<sup>7</sup>

**Table 1. CLETHODIM 2EC Herbicide2 TANK-MIXES WITH BROADLEAF HERBICIDES FOR ALFALFA**  
(See crop specific tables for application directions.)

PRODUCT <sup>2</sup>	APPLICATION RATES/ACRE <sup>1</sup>		SPRAY ADDITIVE RATES			
	ANNUAL GRASSES	PERENNIAL GRASSES	GROUND		AIR	
			ADJUVANT	AMS	ADJUVANT	AMS
<b>CLETHODIM 2EC Herbicide2</b> + 2,4-DB <sup>3</sup>	5.5-14.8 fl oz (0.091-0.242 lb ai) + See tank-mix partner label.	7.4-14.8 fl oz (0.121-0.242 lb ai) + See tank-mix partner label.	NIS 0.25% v/v	2.5 lb/A	NIS 0.25% v/v	17 lb/100 gal of spray solution
<b>CLETHODIM 2EC Herbicide2</b> + Bromoxynil <sup>4,5</sup>	5.5-14.8 fl oz (0.091-0.242 lb ai) + See tank-mix partner label.	-	NIS 0.25% v/v	2.5 lb/A	NIS 0.25% v/v	17 lb/100 gal of spray solution
<b>CLETHODIM 2EC Herbicide2</b> + imazamox	5.5-14.8 fl oz (0.091-0.242 lb ai) + See tank-mix partner label.	-	NIS 0.25% v/v	2.5 lb/A	NIS 0.25% v/v	17 lb/100 gal of spray solution
<b>CLETHODIM 2EC Herbicide2</b> + Imazethapyr <sup>6</sup>	5.5-14.8 fl oz (0.091-0.242 lb ai) +	-	NIS 0.25% v/v	2.5 lb/A	NIS 0.25% v/v	17 lb/100 gal of spray solution

	See tank-mix partner label.					
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- <sup>1</sup> If grass regrowth occurs or an additional flush of new grass emerges, apply a second application of **CLETHODIM 2EC Herbicide2** alone (without a tank-mix herbicide), according to the appropriate size and rate specifications.
- <sup>2</sup> Broadleaf weed control may be reduced when grass populations are tall or dense enough to intercept the spray pattern and prevent them from receiving complete coverage. Tank-mixing is not advised in these situations.
- <sup>3</sup> **CLETHODIM 2EC Herbicide2** 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.
- <sup>4</sup> States of Colorado, Idaho, Montana, Nevada, Oregon, Utah, Washington, Wyoming and the western halves of Kansas, Nebraska, North Dakota, South Dakota: The tank-mix of **CLETHODIM 2EC Herbicide2** plus bromoxynil 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.
- <sup>5</sup> Bromoxynil plus **CLETHODIM 2EC Herbicide2** 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 2EC Herbicide2** plus bromoxynil 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 2EC Herbicide2** plus bromoxynil applications. Warm, humid conditions may enhance leaf burn. However, new crop growth will not be affected.
- <sup>6</sup> Before using this tank-mix, read and understand the imazethapyr labels for geographical restrictions and restrictions regarding alfalfa growth stage and type. Failure to do so can result in crop injury to alfalfa. **RESTRICTION: DO NOT** feed, graze or harvest alfalfa for 30 days following an application of imazethapyr to alfalfa.
- <sup>7</sup> **RESTRICTION: DO NOT** make application when alfalfa is under moisture, temperature, insect or disease stress or has been stressed by other pesticide carryover or application.

### BUSHBERRY, CANEBERRY, POME FRUIT AND STONE FRUIT

Apply **CLETHODIM 2EC Herbicide2** postemergence to actively growing grasses according to prescribed rates in the **CROP SPECIFIC INSTRUCTIONS AND RESTRICTIONS** table. Crop injury to bushberry, caneberry, pome fruit and stone fruit can occur if **CLETHODIM 2EC Herbicide2** is improperly applied.

**CLETHODIM 2EC Herbicide2** must not be applied directly over the top of these plant types. Instead spray must be directed at the base of the plant where grassy weeds are growing near the ground.

**RESTRICTION: DO NOT** apply **CLETHODIM 2EC Herbicide2** to bushberry, caneberry, pome fruit or stone fruit grown for root stock.

### CANOLA

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

**Table 2. REDUCED RATE CLETHODIM 2EC Herbicide2 TANK-MIXES WITH BROADLEAF HERBICIDES FOR CANOLA**

(See crop specific tables for application directions.)

PRODUCT	APPLICATION RATES/ACRE		SPRAY ADDITIVE RATES		
	ANNUAL GRASSES <sup>1</sup>	PRENNIAL GRASSES	ADJUVANT	AMMONIUM SULFATE GROUND	AIR
<b>CLETHODIM 2EC Herbicide2<sup>2</sup></b> + clopypirid <sup>4</sup>	3.7-4.6 fl oz (0.061-0.076 lb ai) + See tank-mix partner label.	-	NIS: 0.25% v/v	3.0 lb/A	3.0 lb/A



<b>CLETHODIM 2EC Herbicide<sup>2</sup></b> + glufosinate <sup>3</sup>	3.7-4.6 fl oz (0.061-0.076 lb ai) + See tank-mix partner label.	-	NIS: 0.25% v/v	3.0 lb/A	3.0 lb/A
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- <sup>1</sup> Annual grasses and sizes controlled with these tank-mixtures are those that are identified in the **INSTRUCTIONS FOR REDUCED RATE CONTROL OF SMALL ANNUAL GRASSES** table.
- <sup>2</sup> **RESTRICTION: DO NOT** apply **CLETHODIM 2EC Herbicide<sup>2</sup>** tank-mix during or after bolting or flowering or crop injury could occur.
- <sup>3</sup> For use only on glufosinate resistant canola.
- <sup>4</sup> See clopyralid label for weeds controlled.

**COTTON**  
(including cotton grown for seed)

**Table 3. CLETHODIM 2EC Herbicide<sup>2</sup> TANK-MIXED WITH LACTOFEN AND MSMA APPLIED POST DIRECTED TO COTTON**

PRODUCT <sup>1</sup>	APPLICATION RATES/ACRE <sup>2</sup>		CROP OIL CONCENTRATE <sup>3</sup> (V/V)	USE INSTRUCTIONS
	ANNUAL GRASSES	PERENNIAL GRASSES	GROUND	
<b>CLETHODIM 2EC Herbicide<sup>2</sup></b> + [Cobra] [[lactofen]] + MSMA (4.0 lb/gal) <b>OR</b> MSMA (6.6 lb/gal)	5.5-7.4 fl oz (0.091-0.121 lb ai)	7.4-14.8 fl oz (0.121-0.242 lb ai)	1%	Reduce broadcast rate in proportion to the band area actually treated.
	See lactofen label for rates to control broadleaf weeds and height limitations for cotton. See <b>CLETHODIM 2EC Herbicide<sup>2</sup></b> label for weed height and species controlled.			
	See MSMA label for rates to control broadleaf weeds and height limitations for cotton. See <b>CLETHODIM 2EC Herbicide<sup>2</sup></b> label for weed height and species controlled.			

- <sup>1</sup> Broadleaf weed control may be reduced when grass populations are tall or dense enough to intercept the spray pattern and prevent them from receiving complete coverage. Tank-mixing is not advised in these situations.
- <sup>2</sup> If grass regrowth occurs or an additional flush of new grass emerges, apply a second application of **CLETHODIM 2EC Herbicide<sup>2</sup>** alone (without a tank-mix herbicide) according to the appropriate size and rate specifications.
- <sup>3</sup> Always use a crop oil concentrate at the listed rate, but not less than 1 pt/A, in the finished spray volume.
- <sup>4</sup> 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 2EC Herbicide<sup>2</sup>** may be necessary.

**Table 4. CLETHODIM 2EC Herbicide<sup>2</sup> TANK-MIXED WITH GLYPHOSATE TO CONTROL EMERGED GRASSES IN COTTON AS A BROADCAST APPLICATION**

PRODUCT	APPLICATION RATE/ACRE <sup>1</sup>		ADJUVANT		USE INSTRUCTIONS
	ANNUAL GRASSES	PERENNIAL GRASSES	Glyphosate formulation WITH adjuvant	Glyphosate formulation WITHOUT adjuvant	
<b>CLETHODIM 2EC Herbicide<sup>2</sup></b> + glyphosate	4.1-7.4 fl oz (0.068-0.121 lb ai)	5.5-14.8 fl oz (0.091-0.242 lb ai)	Ammonium Sulfate at 8.5 to 17 lb per 100 gallons carrier plus glyphosate label adjuvant specification.	Ammonium sulfate at 8.5 to 17 lb per 100-gal carrier plus non-ionic surfactant at 0.25% v/v.	See charts for grasses controlled.  Use a minimum of 10 gal of spray solution per acre.
	See glyphosate label for rates to control broadleaf weeds and height limitations for cotton.				

<sup>1</sup> If grass regrowth occurs or an additional flush of new grass emerges, apply a second application of **CLETHODIM 2EC Herbicide2** at the specified rate with the appropriate amount of crop oil.

### DRY SHELLLED AND SUCCULENT BEANS

[Succulent Shelled Pea and Bean Subgroup 6B][Dried Shelled Pea and Bean (except Soybean) 6C]

**Table 5. CLETHODIM 2EC Herbicide2 TANK-MIXES WITH BROADLEAF HERBICIDES FOR DRY SHELLLED AND SUCCULENT BEANS (See crop specific tables for application directions.)**

PRODUCT <sup>2</sup>	APPLICATION RATES/ACRE <sup>1</sup>			
	ANNUAL GRASSES	PERENNIAL GRASSES	ADJUVANT	
			GROUND	AIR
<b>CLETHODIM 2EC Herbicide2</b> + bentazon	4.1-5.5 fl oz (0.068-0.091 lb ai) + See tank-mix partner label.	5.5-11.1 fl oz (0.091-0.182 lb ai) + See tank-mix partner label.	COC at 1% v/v + AMS at 2.5 lb/A	COC at 1% v/v + AMS at 17 lb/100 gal of spray solution
<b>CLETHODIM 2EC Herbicide2</b> + imazamox	4.1-5.5 fl oz (0.068-0.091 lb ai) + See tank-mix partner label.	-	NIS at 0.25% + AMS at 2.5 lb/A	NIS at 0.25% + AMS at 17 lb/100 gal of spray solution

<sup>1</sup> If grass regrowth occurs or an additional flush of new grass emerges, make a second application of **CLETHODIM 2 EC Herbicide2** alone (without a tank-mix herbicide) according to the appropriate size and rate specifications.

<sup>2</sup> 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 advised in these situations.

### FLAX

**Table 6. REDUCED RATE CLETHODIM 2EC Herbicide2 TANK-MIXES WITH BROADLEAF HERBICIDES FOR FLAX (See instruction tables above for specific grasses and growth.)**

PRODUCT	APPLICATION RATES/ACRE		ADJUVANT	
	ANNUAL GRASSES <sup>1</sup>	PERENNIAL GRASSES	GROUND	AIR
<b>CLETHODIM 2EC Herbicide2</b> + [Bronate Advanced™] [(MCPA + bromoxynil)] <sup>2,3</sup> <b>OR</b> bromoxynil <sup>2,3</sup>	2.7-4.1 fl oz (0.045-0.068 lb ai) + See tank-mix partner label.	-	NIS at 0.125% + AMS at 2.4-4 lb/A	AMS at 2.5-4 lb/A
<b>CLETHODIM 2EC Herbicide2</b> + clopyralid <sup>2,3</sup>	2.7-4.1 fl oz (0.045-0.068 lb ai) + See tank-mix partner label.	-	NIS at 0.125% + AMS at 2.4-4 lb/A	AMS at 2.5-4 lb/A
<b>CLETHODIM 2EC Herbicide2</b> + MCPA <sup>2,3</sup>	3.7-4.6 fl oz (0.061-0.076 lb ai) + See tank-mix partner label.	-	NIS at 0.125% + AMS at 2.4-4 lb/A	AMS at 2.5-4 lb/A

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

- <sup>2</sup> **RESTRICTION: DO NOT** apply **CLETHODIM 2EC Herbicide2** tank-mix during or after the bud stage or to ornamental flax as crop injury can occur.
- <sup>3</sup> **RESTRICTION: 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.

**PEANUT**  
(including perennial)

**Table 7. CLETHODIM 2EC Herbicide2 TANK-MIXES WITH BROADLEAF HERBICIDES FOR PEANUT (INCLUDING PERENNIAL) (See instruction tables above for specific grasses and growth stages.)**

PRODUCT <sup>2</sup>	APPLICATION RATES/ACRE <sup>1</sup>		ADJUVANT RATES	
	ANNUAL GRASSES <sup>2</sup>	PERENNIAL GRASSES	GROUND	AIR
<b>CLETHODIM 2EC Herbicide2</b> + bentazon	4.1-7.4 fl oz (0.068-0.121 lb ai) + See tank-mix partner label.	-	COC at 1% v/v + AMS at 2.5 lb/A	COC at 1% v/v + AMS at 17 lb/100 gal of spray solution
<b>CLETHODIM 2EC Herbicide2</b> + sodium acifluorfen	4.1-7.4 fl oz (0.068-0.121 lb ai) + See tank-mix partner label.	-	COC at 1% v/v + AMS at 2.5 lb/A	COC at 1% v/v + AMS at 17 lb/100 gal of spray solution

- <sup>1</sup> Make a second application of **CLETHODIM 2EC Herbicide2** alone (without a tank-mix herbicide) according to the appropriate size and rate specifications, if grass regrowth occurs or an additional flush of new grass emerges.
- <sup>2</sup> Broadleaf weed control may be reduced when grass populations are tall or dense enough to intercept the spray pattern and prevent them from receiving complete coverage. Tank-mixing is not advised in these situations.

<b>INSTRUCTIONS FOR GRASS SUPPRESSION FOR HARVEST EFFICIENCY IN PEANUT (INCLUDING PERENNIAL) WITH CLETHODIM 2EC Herbicide2</b>			
GRASS SPECIES	WEED STAGE	RATE FL OZ/A	HIGH RATE
Annual and perennial grasses that exceed height claimed for control on height charts “ <b>INSTRUCTIONS FOR ANNUAL GRASSES</b> ” & “ <b>INSTRUCTIONS FOR PERENNIAL GRASSES</b> ”.	Up to and including grasses in the seed head stage.	14.8 fl oz (0.242 lb ai)	29.6 fl oz (0.485 lb ai)
Add a crop oil concentrate at 1 qt/A by ground to the finished spray volume.			
<b>RESTRICTION: DO NOT</b> apply as part of a tank-mix when applying <b>CLETHODIM 2EC Herbicide2</b> for grass suppression.			

**SOYBEAN**

**Table 8. CLETHODIM 2EC Herbicide2 TANK-MIXES TO CONTROL ANNUAL GRASSES WHEN USED AS A BURNDOWN IN NO-TILL SOYBEAN**

PRODUCT	WEED SIZE AND APPLICATION RATES		ADJUVANT RATES			
	VOLUNTEER CORN HEIGHT (inches)	RATES FL OZ/ACRE	GROUND		AIR	
			NIS	AMS	NIS	AMS
<b>CLETHODIM 2EC Herbicide2</b> + cloransulam	Up to 12	2.7 fl oz (0.045 lb ai)	0.25% v/v	2.5 lb/A	0.25% v/v	17 lb/100 gal of spray solution
Up to 24	4.1 fl oz (0.068 lb ai)					
Up to 36	5.5 fl oz (0.091 lb ai) +					

PRODUCT	WEED SIZE AND APPLICATION RATES		ADJUVANT RATES			
	VOLUNTEER CORN HEIGHT (inches)	RATES FL OZ/ACRE	GROUND		AIR	
			NIS	AMS	NIS	AMS
		See tank-mix partner label.				
<b>CLETHODIM 2EC Herbicide2</b> + glyphosate <sup>1,2,3,4</sup>	Up to 12	2.7 fl oz (0.045 lb ai)	Glyphosate formulation <b>WITH</b> adjuvant: None required  Glyphosate formulation <b>WITHOUT</b> adjuvant: 0.25% v/v	8.5-17 lb/100 gals	Glyphosate formulation <b>WITH</b> adjuvant: None required  Glyphosate formulation <b>WITHOUT</b> adjuvant: 0.25% v/v	8.5-17 lb/100 gal of spray solution
	Up to 24	4.1 fl oz (0.068 lb ai)				
	Up to 36	5.5 fl oz (0.091 lb ai) + See tank-mix partner label.				
<b>CLETHODIM 2EC Herbicide2</b> + imazamox	Up to 12	2.7 fl oz (0.045 lb ai)	0.25% v/v	2.5 lb/A	0.25% v/v	17 lb/100 gal of spray solution
	Up to 24	4.1 fl oz (0.068 lb ai)				
	Up to 36	5.5 fl oz (0.091 lb ai) + See tank-mix partner label.				
<b>CLETHODIM 2EC Herbicide2</b> + imazethapyr	Up to 12	2.7 fl oz (0.045 lb ai)	0.25% v/v	2.5 lb/A	0.25% v/v	17 lb/100 gal of spray solution
	Up to 24	4.2 fl oz (0.068 lb ai)				
	Up to 36	5.5 fl oz (0.091 lb ai) + See tank-mix partner label.				

<sup>1</sup> This tank mix may be applied postemergence to glyphosate resistant soybeans up through the full flowering stage.  
**RESTRICTION: DO NOT** apply less than 60 days before harvest.

<sup>2</sup> Avoid contact with foliage, green stems or fruit crops or any desirable plants and trees, other than soybeans with the glyphosate resistant gene as severe plant injury or death will result.

<sup>3</sup> **RESTRICTION: DO NOT** allow this product plus glyphosate to mist, drip, drift or splash onto desirable vegetation as minute quantities of the tank mix can cause severe damage or destruction to the crops, plants or other areas on which treatment was not intended. The likelihood of injury occurring from drift of this product is greatest when winds are gusty or in excess of 5 miles per hour. Even under lesser wind velocities, avoid conditions that allow spray drift to occur including combinations of spray pressure and nozzle type that will result in fine particles (mist) that are likely to drift.

<sup>4</sup> Glyphosate resistant soybeans only.

**Table 9. CLETHODIM 2EC Herbicide<sup>2</sup> TANK-MIXES WITH BROADLEAF HERBICIDES FOR SOYBEAN**  
**(See instruction tables above for specific grasses and growth stages.)**

PRODUCT <sup>1</sup>	APPLICATION RATES/ ACRE <sup>2</sup>	ADJUVANT RATES			
	ANNUAL GRASSES <sup>3</sup>	GROUND		AIR	
		COC/NIS <sup>4</sup>	AMS	COC/NIS <sup>4</sup>	AMS
CLETHODIM 2EC Herbicide <sup>2</sup> + cloransulam <sup>5</sup>	4.1-9.2 fl oz (0.068-0.151 lb ai) + See tank-mix partner label.	NIS at 0.25% v/v OR COC at 1 pt/A	2.5 lb/A	NIS at 0.25% v/v OR COC at 1% v/v (but no less than 1 pt/A)	17 lb/100 gal of spray solution
CLETHODIM 2EC Herbicide <sup>2</sup> + flumiclorac	4.1-9.2 fl oz (0.068-0.151 lb ai) + See tank-mix partner label.	NIS at 0.25% v/v + COC at 0.25% v/v OR COC at 1-2 pts/A	2.5 lb/A	-	-
CLETHODIM 2EC Herbicide <sup>2</sup> + fomesafen <sup>5</sup>	4.1-9.2 fl oz (0.068-0.151 lb ai) + See tank-mix partner label.	NIS at 0.25% v/v + COC at 0.25% v/v OR COC at 1-2 pts/A	2.5 lb/A	NIS at 0.25% v/v + COC at 0.25% v/v OR COC at 1% v/v (but no less than 1 pt/A)	17 lb/100 gal of spray solution
CLETHODIM 2EC Herbicide <sup>2</sup> + imazamox <sup>5</sup>	5.5-9.2 fl oz (0.091-0.151 lb ai) + See tank-mix partner label.	NIS at 0.25% v/v OR COC at 1 pt/A	2.5 lb/A	NIS at 0.25% v/v OR COC at 1% v/v (but no less than 1 pt/A)	17 lb/100 gal of spray solution
CLETHODIM 2EC Herbicide <sup>2</sup> + imazethapyr <sup>5</sup>	5.5-9.2 fl oz (0.091-0.151 lb ai) + See tank-mix partner label.	NIS at 0.25% v/v OR COC at 1 pt/A	2.5 lb/A	NIS at 0.25% v/v OR COC at 1% v/v (but no less than 1 pt/A)	17 lb/100 gal of spray solution
CLETHODIM 2EC Herbicide <sup>2</sup> + [Cobra] [(lactofen)]	4.1-9.2 fl oz (0.068-0.151 lb ai) + See tank-mix partner label.	NIS at 0.25% v/v + COC at 0.25% v/v OR COC at 1-2 pts/A	2.5 lb/A	NIS at 0.25% v/v + COC at 0.25% v/v OR COC at 1% v/v (but no less than 1 pt/A)	17 lb/100 gal of spray solution
CLETHODIM 2EC Herbicide <sup>2</sup> + [Phoenix™] [(lactofen)]	4.1-9.2 fl oz (0.068-0.151 lb ai) + See tank-mix partner label.	NIS at 0.25% v/v + COC at 0.125-0.25% v/v OR COC at 1 pt/A	2.5 lb/A	NIS at 0.25% v/v + COC at 0.25% v/v OR COC at 1% v/v (but no less than 1 pt/A)	17 lb/100 gal of spray solution
CLETHODIM 2EC Herbicide <sup>2</sup> + thifensulfuron <sup>5</sup>	4.2-5.5 fl oz (0.068-0.091 lb ai) + See tank-mix partner label.	NIS at 0.125-0.25% v/v	2.5 lb/A	-	-
CLETHODIM 2EC Herbicide <sup>2</sup> + [Synchrony XP (mp)] [(chlorimuron + thifensulfuron)] <sup>5</sup>	5.5-9.2 fl oz (0.091-0.151 lb ai) + See tank-mix partner label.	NIS at 0.25% v/v OR COC at 1 pt/A	2.5 lb/A	NIS at 0.25% v/v OR COC at 1% v/v (but no less than 1 pt/A)	17 lb/100 gal of spray solution

PRODUCT <sup>1</sup>	APPLICATION RATES/ ACRE <sup>2</sup>	ADJUVANT RATES			
	ANNUAL GRASSES <sup>3</sup>	GROUND		AIR	
		COC/NIS <sup>4</sup>	AMS	COC/NIS <sup>4</sup>	AMS
<b>CLETHODIM 2EC Herbicide2</b> + [Synchrony XP (mp)] [(chlorimuron + thifensulfuron)] <sup>5</sup> (STS Soybeans Only)	5.5-9.2 fl oz (0.091-0.151 lb ai) + See tank-mix partner label.	NIS at 0.25% v/v <b>OR</b> COC at 1 pt/A	2.5 lb/A	NIS at 0.25% v/v <b>OR</b> COC at 1% v/v (but no less than 1 pt/A)	17 lb/100 gal of spray solution
<b>CLETHODIM 2EC Herbicide2</b> + cloransulam <sup>5</sup> + fomesafen <sup>5</sup>	4.1-9.2 fl oz (0.068-0.151 lb ai) + See tank-mix partner labels.	NIS at 0.25% v/v + COC at 0.25% v/v <b>OR</b> Equivalent blended product <b>OR</b> COC at 1-2 pts/A	2.5 lb/A	NIS at 0.25% v/v + COC at 0.25% v/v <b>OR</b> COC at 1% v/v (but no less than 1 pt/A)	17 lb/100 gal of spray solution
<b>CLETHODIM 2EC Herbicide2</b> + flumiclorac + imazethapyr <sup>5</sup>	5.5-9.2 fl oz (0.091-0.151 lb ai) + See tank-mix partner labels.	NIS at 0.25% v/v + COC at 0.25% v/v <b>OR</b> COC at 1-2 pts/A	2.5 lb/A	-	-
<b>CLETHODIM 2EC Herbicide2</b> + [Cobra] [(lactofen)] + cloransulam <sup>5</sup>	4.1-9.2 fl oz (0.068-0.151 lb ai) + See tank-mix partner labels.	NIS at 0.25% v/v + COC at 0.25% v/v <b>OR</b> COC at 1-2 pts/A	2.5 lb/A	NIS at 0.25% v/v + COC at 0.25% v/v <b>OR</b> COC at 1% v/v (but no less than 1 pt/A)	17 lb/100 gal of spray solution
<b>CLETHODIM 2EC Herbicide2</b> + [Phoenix] [(lactofen)] + cloransulam <sup>5</sup>	5.5-9.2 fl oz (0.091-0.151 lb ai) + See tank-mix partner labels.	NIS at 0.25% v/v + COC at 0.125-0.25% v/v <b>OR</b> COC at 1 pt/A	2.5 lb/A	NIS at 0.25% v/v + COC at 0.25% v/v <b>OR</b> COC at 1% v/v (but no less than 1 pt/A)	17 lb/100 gal of spray solution
<b>CLETHODIM 2EC Herbicide2</b> + [Cobra] [(lactofen)] + flumiclorac	4.1-9.2 fl oz (0.068-0.151 lb ai) + See tank-mix partner labels.	NIS at 0.25% v/v + COC at 0.25% v/v <b>OR</b> COC at 1-2 pts/A	2.5 lb/A	-	-
<b>CLETHODIM 2EC Herbicide2</b> + [Phoenix] [(lactofen)] + flumiclorac	4.1-9.2 fl oz (0.068-0.151 lb ai) + See tank-mix partner labels.	NIS at 0.25% v/v + COC at 0.125-0.25% v/v <b>OR</b> COC at 1 pt/A	2.5 lb/A	-	-

PRODUCT <sup>1</sup>	APPLICATION RATES/ ACRE <sup>2</sup>	ADJUVANT RATES			
	ANNUAL GRASSES <sup>3</sup>	GROUND		AIR	
		COC/NIS <sup>4</sup>	AMS	COC/NIS <sup>4</sup>	AMS
<b>CLETHODIM 2EC Herbicide<sup>2</sup></b> + [Cobra] [(lactofen)] + imazamox <sup>5</sup>	5.5-9.2 fl oz (0.091-0.151 lb ai) + See tank-mix partner labels.	NIS at 0.25% v/v + COC at 0.25% v/v <b>OR</b> COC at 1-2 pts/A	2.5 lb/A	NIS at 0.25% v/v + COC at 0.25% v/v <b>OR</b> COC at 1% v/v (but no less than 1 pt/A)	17 lb/100 gal of spray solution
<b>CLETHODIM 2EC Herbicide<sup>2</sup></b> + [Phoenix] [(lactofen)] + imazamox <sup>5</sup>	5.5-9.2 fl oz (0.091-0.151 lb ai) + See tank-mix partner labels.	NIS at 0.25% v/v + COC at 0.125-0.25% v/v <b>OR</b> COC at 1 pt/A	2.5 lb/A	NIS at 0.25% v/v + COC at 0.25% v/v <b>OR</b> COC at 1% v/v (but no less than 1 pt/A)	17 lb/100 gal of spray solution
<b>CLETHODIM 2EC Herbicide<sup>2</sup></b> + [Cobra] [(lactofen)] + imazethapyr <sup>5</sup>	5.5-9.2 fl oz (0.091-0.151 lb ai) + See tank-mix partner labels.	NIS at 0.25% v/v + COC at 0.25% v/v <b>OR</b> COC at 1-2 pts/A	2.5 lb/A	NIS at 0.25% v/v + COC at 0.25% v/v <b>OR</b> COC at 1% v/v (but no less than 1 pt/A)	17 lb/100 gal of spray solution
<b>CLETHODIM 2EC Herbicide<sup>2</sup></b> + [Phoenix] [(lactofen)] + imazethapyr <sup>5</sup>	7.4-9.2 fl oz (0.121-0.151 lb ai) + See tank-mix partner labels.	NIS at 0.25% v/v + COC at 0.125-0.25% v/v <b>OR</b> COC at 1 pt/A	2.5 lb/A	NIS at 0.25% v/v + COC at 0.25% v/v <b>OR</b> COC at 1% v/v (but no less than 1 pt/A)	17 lb/100 gal of spray solution
<b>CLETHODIM 2EC Herbicide<sup>2</sup></b> + [Cobra] [(lactofen)] + thifensulfuron <sup>5</sup>	4.1-5.5 fl oz (0.068-0.091 lb ai) + See tank-mix partner labels.	NIS at 0.125-0.25% v/v + COC at 0.125% v/v	2.5 lb/A	-	-
<b>CLETHODIM 2EC Herbicide<sup>2</sup></b> + [Cobra] [(lactofen)] + [Synchrony XP (mp)] [(chlorimuron + thifensulfuron)] <sup>5</sup>	5.5-9.2 fl oz (0.091-0.151 lb ai) + See tank-mix partner labels.	NIS at 0.25% v/v + COC at 0.25% v/v <b>OR</b> COC at 1-2 pts/A	2.5 lb/A	NIS at 0.25% v/v + COC at 0.25% v/v <b>OR</b> COC at 1% v/v (but no less than 1 pt/A)	17 lb/100 gal of spray solution

PRODUCT <sup>1</sup>	APPLICATION RATES/ ACRE <sup>2</sup>	ADJUVANT RATES			
	ANNUAL GRASSES <sup>3</sup>	GROUND		AIR	
		COC/NIS <sup>4</sup>	AMS	COC/NIS <sup>4</sup>	AMS
<b>CLETHODIM 2EC Herbicide2</b> + [Phoenix] [(lactofen)] + [Synchrony XP (mp)] [(chlorimuron + thifensulfuron)] <sup>5</sup>	5.5-9.2 fl oz (0.091-0.151 lb ai) + See tank-mix partner labels.	NIS at 0.25% v/v + COC at 0.125-0.25% v/v <b>OR</b> COC at 1 pt/A	2.5 lb/A	NIS at 0.25% v/v + COC at 0.25% v/v <b>OR</b> COC at 1% v/v (but no less than 1 pt/A)	17 lb/100 gal of spray solution
<b>CLETHODIM 2EC Herbicide2</b> + [Cobra] [(lactofen)] + [Synchrony XP (mp)] [(chlorimuron + thifensulfuron)] <sup>5</sup> (STS Soybeans Only)	5.5-9.2 fl oz (0.091-0.151 lb ai) + See tank-mix partner labels.	NIS at 0.25% v/v + COC at 0.25% v/v <b>OR</b> COC at 1-2 pts/A	2.5 lb/A	NIS at 0.25% v/v + COC at 0.25% v/v <b>OR</b> COC at 1% v/v (but no less than 1 pt/A)	17 lb/100 gal of spray solution
<b>CLETHODIM 2EC Herbicide2</b> + [Phoenix] [(lactofen)] + [Synchrony XP (mp)] [(chlorimuron + thifensulfuron)] <sup>5</sup> (STS Soybeans Only)	5.5-9.2 fl oz (0.091-0.151 lb ai) + See tank-mix partner labels.	NIS at 0.25% v/v + COC at 0.125-0.25% v/v <b>OR</b> COC at 1 pt/A	2.5 lb/A	NIS at 0.25% v/v + COC at 0.25% v/v <b>OR</b> COC at 1% v/v (but no less than 1 pt/A)	17 lb/100 gal of spray solution
<b>CLETHODIM 2EC Herbicide2</b> + [Cobra] [(lactofen)] + [Synchrony XP (mp)] [(chlorimuron + thifensulfuron)] <sup>5</sup> (STS Soybeans Only)	5.5-9.2 fl oz (0.091-0.151 lb ai) + See tank-mix partner labels.	NIS at 0.25% v/v + COC at 0.25% v/v <b>OR</b> COC at 1-2 pts/A	2.5 lb/A	NIS at 0.25% v/v + COC at 0.25% v/v <b>OR</b> COC at 1% v/v (but no less than 1 pt/A)	17 lb/100 gal of spray solution
<b>CLETHODIM 2EC Herbicide2</b> + [Phoenix] [(lactofen)] + cloransulam <sup>5</sup> + flumiclorac	4.1-9.2 fl oz (0.068-0.151 lb ai) + See tank-mix partner labels.	NIS at 0.25% v/v + COC at 0.125-0.25% v/v <b>OR</b> COC at 1 pt/A	2.5 lb/A	-	-

<sup>1</sup> 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 advised in these situations.



- <sup>2</sup> If grass regrowth occurs or an additional flush of new grass emerges, make a second application of **CLETHODIM 2EC Herbicide2** alone (without a tank-mix herbicide) according to the appropriate size and rate specifications.
- <sup>3</sup> Annual grasses and sizes controlled with these tank-mixtures are those that are identified in the **INSTRUCTIONS FOR REDUCED RATE CONTROL OF SMALL ANNUAL GRASSES** table.
- <sup>4</sup> Contact local UPL NA Inc. representative for proper COC/NIS adjuvant selection.
- <sup>5</sup> Refer to the cloransulam, fomesafen, imazamox, imazethapyr, thifensulfuron and [Synchrony XP (mp)] [[(chlorimuron plus thifensulfuron)]]] labels for geographic and rotational restrictions.

**SUGAR BEET**

**Table 10. CLETHODIM 2EC Herbicide2 TANK-MIXED WITH CLOPYRALID OR FUNGICIDES APPLIED TO SUGAR BEET**  
(See instruction tables above for specific grasses and growth stages.)

PRODUCTS <sup>1</sup>	APPLICATION RATES/ACRE	ADJUVANT RATES
<b>CLETHODIM 2EC Herbicide2</b> + desmedipham <b>OR</b> [Betamix®] [(desmedipham + phenmedipham)] <b>OR</b> [Progress®] [(desmedipham + phenmedipham + ethofumesate)] <b>+ /OR</b> clopyralid <b>+ /OR</b> triflusulfuron methyl	4.1-5.5 fl oz (0.068-0.091 lb ai) + See tank-mix partner labels.	NIS at 0.25% unless desmedipham plus phenmedipham, desmedipham or desmedipham plus phenmedipham plus ethofumesate is in the tank, then use no adjuvant.

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

**Table 11. CLETHODIM 2EC Herbicide2 AND DESMEDIPHAM OR DESMEDIPHAM PLUS PHENMEDIPHAM TANK-MIX FOR THREE SEQUENTIAL APPLICATIONS FOR ANNUAL GRASS CONTROL (MICRO-RATE APPLICATION)**

PRODUCTS	APPLICATION RATES/ACRE <sup>1</sup>				
	ANNUAL GRASSES	GRASSES CONTROLLED (inches)		METHYLATED SEED OIL <sup>2</sup>	
					GROUND
<b>CLETHODIM 2EC Herbicide2</b> + desmedipham <b>OR</b> [Betamix] [(desmedipham + phenmedipham)] <b>OR</b> [Progress] [(desmedipham + phenmedipham + ethofumesate)] <b>OR</b> clopyralid <b>OR</b> triflusulfuron methyl	1.4-2.7 fl oz (0.023-0.045 lb ai) + See tank-mix partner labels.	Green Foxtail Yellow Foxtail Barnyardgrass Wild Oat Volunteer Cereals	(1-2) (1-2) (1-2) (1-2) (1-2)	1.5% v/v	1.5% v/v

- <sup>1</sup> Broadleaf weed control may be reduced when grass populations are tall or dense enough to intercept the spray pattern and prevent them from receiving complete coverage. Tank-mixing is not advised in these situations.
- <sup>2</sup> Always use a methylated seed oil at the listed rate, but not less than 1 pt/A, in the finished spray volume.

**INSTRUCTIONS FOR USE WITH MICRO-RATE APPLICATIONS TO SUGAR BEETS**

Multiple micro-rate applications of **CLETHODIM 2EC Herbicide2** in tank-mixtures with reduced rates of desmedipham or desmedipham + phenmedipham and methylated seed oils can be applied by air or ground equipment to sugar beets to control early germinating annual grasses listed above. Refer to tank-mix partner label for use rates and restrictions. 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 desmedipham or desmedipham + phenmedipham master labels must be followed.

**INSTRUCTIONS FOR USING MICRO-RATE MULTIPLE APPLICATIONS OF CLETHODIM 2EC Herbicide2 TANK-MIXES**

Apply **CLETHODIM 2EC Herbicide2** in broadcast applications only at a rate of 1.4-2.7 fl oz (0.023-0.045 lb ai)/A in tank-mixture with either desmedipham or desmedipham + phenmedipham following the directions for use on the tank-mix partner label. Use a minimum of three sequential applications of 1.4 fl oz (0.023 lb ai)/A or a minimum of 2 sequential applications of 2.7 fl oz (0.045 lb ai)/A for **CLETHODIM 2EC Herbicide2** tank-mixtures. Refer to desmedipham or desmedipham + phenmedipham labels for application restrictions. 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 2EC Herbicide2**, 5.5-7.4 fl oz (0.091-0.121 lb ai)/A, and add rates of desmedipham or desmedipham + phenmedipham 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 advised when using conventional rates of desmedipham or desmedipham + phenmedipham in tank-mixtures with **CLETHODIM 2EC Herbicide2**.

**Use Precautions for Micro-Rate Applications:** (See **CLETHODIM 2EC Herbicide2**, desmedipham and desmedipham + phenmedipham master labels 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 2EC Herbicide2**, desmedipham or desmedipham + phenmedipham 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.

**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. Ensure spray pressures reflects 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 12. TANK-MIX APPLICATION OF CLETHODIM 2EC Herbicide2 AND FUNGICIDES FOR CONTROL OF GRASS WEEDS AND DISEASES IN SUGAR BEET**

PRODUCT <sup>2</sup>	APPLICATION RATES/ACRE <sup>1</sup>		ADJUVANT RATES
	ANNUAL GRASSES	PERENNIAL GRASSES	
<b>CLETHODIM 2EC Herbicide2</b> + pyraclostrobin	4.1-5.5 fl oz (0.068-0.091 lb ai) + See tank-mix partner label.	5.5-11.1 fl oz (0.091-0.182 lb ai) + See tank-mix partner label.	NIS at 0.25% v/v
<b>CLETHODIM 2EC Herbicide2</b> + tetraconazole	4.1-5.5 fl oz (0.068-0.091 lb ai) + See tank-mix partner label.	5.5-11.1 fl oz (0.091-0.182 lb ai) + See tank-mix partner label.	NIS at 0.25% v/v

<b>CLETHODIM 2EC Herbicide2</b> + trifloxystrobin	4.1-5.5 fl oz (0.068-0.091 lb ai) + See tank-mix partner label.	5.5-11.1 fl oz (0.091-0.182 lb ai) + See tank-mix partner label.	NIS at 0.25% v/v
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- <sup>1</sup> Make a second application of **CLETHODIM 2EC Herbicide2** alone (without a tank mix fungicide) at the full label rate with appropriate rate of crop oil concentration, if grass regrowth occurs or an additional flush of new grass emerges.
- <sup>2</sup> Refer to **CLETHODIM 2EC Herbicide2** and fungicide label for rates and weeds and diseases controlled.

**Table 13. TANK-MIX APPLICATION OF CLETHODIM 2EC Herbicide2 AND INSECTICIDES FOR CONTROL OF GRASS WEEDS AND INSECTS IN ALFALFA, COTTON, MINT (PEPPERMINT, TOPS AND SPEARMINT, TOPS), PEANUT (INCLUDING PERENNIAL), SOYBEAN AND SUNFLOWER**

PRODUCT <sup>2</sup>	APPLICATION RATES/ACRE <sup>1</sup>		ADJUVANT RATES	CROP					
	ANNUAL GRASSES	PERENNIAL GRASSES		Alfalfa <sup>3</sup>	Cotton	Mint <sup>3,4</sup>	Peanut	Soybean	Sunflower
<b>CLETHODIM 2EC Herbicide2</b> + acephate	4.1-5.5 fl oz (0.068-0.091 lb ai) + See tank-mix partner label.	5.5-11.1 fl oz (0.091-0.182 lb ai) + See tank-mix partner label.	NIS at 0.25% v/v + AMS at 2.5 lb/A		X	X	X	X	
<b>CLETHODIM 2EC Herbicide2</b> + B-cyfluthrin	4.1-5.5 fl oz (0.068-0.091 lb ai) + See tank-mix partner label.	5.5-11.1 fl oz (0.091-0.182 lb ai) + See tank-mix partner label.	NIS at 0.25% v/v + AMS at 2.5 lb/A	X				X	
<b>CLETHODIM 2EC Herbicide2</b> + dimethoate	4.1-5.5 fl oz (0.068-0.091 lb ai) + See tank-mix partner label.	5.5-11.1 fl oz (0.091-0.182 lb ai) + See tank-mix partner label.	NIS at 0.25% v/v + AMS at 2.5 lb/A	X				X	
<b>CLETHODIM 2EC Herbicide2</b> + esfenvalerate	4.1-5.5 fl oz (0.068-0.091 lb ai) + See tank-mix partner label.	5.5-11.1 fl oz (0.091-0.182 lb ai) + See tank-mix partner label.	NIS at 0.25% v/v + AMS at 2.5 lb/A					X	X
<b>CLETHODIM 2EC Herbicide2</b> + fenpropathrin	4.1-5.5 fl oz (0.068-0.091 lb ai) + See tank-mix partner label.	5.5-11.1 fl oz (0.091-0.182 lb ai) + See tank-mix partner label.	NIS at 0.25% v/v + AMS at 2.5 lb/A		X		X		
<b>CLETHODIM 2EC Herbicide2</b> + lambda-cyhalothrin	4.1-5.5 fl oz (0.068-0.091 lb ai) + See tank-mix partner label.	5.5-11.1 fl oz (0.091-0.182 lb ai) + See tank-mix partner label.	NIS at 0.25% v/v + AMS at 2.5 lb/A					X	X
<b>CLETHODIM 2EC Herbicide2</b> + permethrin	4.1-5.5 fl oz (0.068-0.091 lb ai) + See tank-mix partner label.	5.5-11.1 fl oz (0.091-0.182 lb ai) + See tank-mix partner label.	NIS at 0.25% v/v + AMS at 2.5 lb/A	X				X	

- <sup>1</sup> Make a second application of **CLETHODIM 2EC Herbicide2** alone (without a tank-mix insecticide) according to the appropriate size and rate specifications, if grass regrowth occurs or an additional flush of new grass emerges.
- <sup>2</sup> Refer to **CLETHODIM 2EC Herbicide2** and insecticide label for rates and weeds and insects controlled.

- <sup>3</sup> Certain insecticides can cause temporary phytotoxic symptoms on alfalfa and mint foliage. See the insecticide label for further information. Prior to using any of these insecticide/herbicide tank-mixtures, it is suggested a small area of the field be treated and observed for crop injury before treating the entire field.
- <sup>4</sup> The rate for **CLETHODIM 2EC Herbicide2** for annual grass control in baby mint is 4.1-5.5 fl oz (0.068-0.091 lb ai)/A; minimum of 5.5 fl oz (0.091 lb ai)/A for annual grass control in established mint and 7.4-14.8 fl oz (0.121-0.242 lb ai)/A for perennial grass control.

CONIFER TREES SPECIFIC INSTRUCTIONS AND RESTRICTIONS		
COMMON NAME	SCIENTIFIC NAME	USE RATES PER ACRE
Arborvitae, American	<i>Thuja occidentalis</i>	<b>Annual Grasses:</b> 4.1-7.4 fl oz (0.068-0.121 lb ai)  <b>Perennial Grasses:</b> 5.5-14.8 fl oz (0.091-0.242 lb ai)
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.	
<b>USE INSTRUCTIONS:</b>		
For control of labeled grasses in Christmas tree farms, conifer nurseries, and conifer plantations, but not in forests.		
Add a non-ionic surfactant containing at least 80% active ingredient at the rate of 1 pt per 50 gals (0.25% v/v) plus 2.5-4 lb/A ammonium sulfate or 1 qt/A or 1% v/v of crop oil concentrate or methylated seed oil plus 2.5-4 lb/A ammonium sulfate.		
<b>RESTRICTIONS:</b>		
<ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 14.8 fl oz (0.242 lb ai) per acre per application.</li> <li>• For perennial grasses, <b>DO NOT</b> apply more than 2 applications per year.</li> <li>• For annual grasses, <b>DO NOT</b> apply more than 4 applications per year.</li> <li>• <b>DO NOT</b> apply more than 29.6 fl oz (0.485 lb ai) per acre per year.</li> <li>• <b>DO NOT</b> make repeat applications less than 14-days apart.</li> </ul>		

NON-CROP OR NON-PLANTED AREAS GRASS SUPPRESSION SPECIFIC INSTRUCTIONS AND RESTRICTIONS			
GRASS SPECIES	WEED STAGE	USE RATES	
Annual and perennial grasses that exceed height claimed for control on height chart below.	Up to and including grasses in the seed head stage.	<b>Annual Grasses:</b>	<b>Perennial Grasses:</b>
		4.1-7.4 fl oz (0.068-0.121 lb ai)	5.5-14.8 fl oz (0.091-0.242 lb ai)
<b>USE INSTRUCTIONS:</b>			
The following areas are considered non-crop or non-planted areas: rights-of-way, 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; beneath greenhouse benches; around golf courses.			
Add a crop oil concentrate at 1 qt/A by ground to the finished spray volume.			
<b>RESTRICTIONS:</b>			
<ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 14.8 fl oz (0.242 lb ai) per acre per application.</li> <li>• For annual grasses, <b>DO NOT</b> apply more than 4 applications at 7.4 fl oz (0.121 lb ai) per acre per year.</li> <li>• For perennial grasses, <b>DO NOT</b> apply more than 2 applications per year.</li> <li>• <b>DO NOT</b> apply more than 29.6 fl oz (0.485 lb ai) per acre per year.</li> <li>• <b>DO NOT</b> make repeat applications less than 14-days apart.</li> <li>• Other than the crop oil identified, <b>DO NOT</b> apply as part of a tank mix when applying this product for grass suppression.</li> </ul>			

**NON-BEARING FRUIT AND NUT CROPS  
SPECIFIC INSTRUCTIONS AND RESTRICTIONS**

CROPS		USE RATES PER ACRE
COMMON NAME	SCIENTIFIC NAME	
Apples	<i>Malus</i> spp.	4.1-7.4 fl oz (0.068-0.121 lb ai)
Berries	<i>Vaccinium</i> spp.	
Cherry, Sweet	<i>Rubus</i> spp.	
Citrus Fruits	<i>Prunus avium</i>	
Grapes	<i>Citrus</i> spp.	
Olives	<i>Vitis</i> spp.	
Peach	<i>Olea</i> spp.	
Pears	<i>Prunus persica</i>	
Prunes	<i>Pyrus communis</i>	
Stone Fruits	<i>Prunus</i> spp.	
Strawberries	<i>Prunus</i> spp.	
<b>Tree Nuts:</b>	<i>Fragaria</i> spp.	
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.	

**USE INSTRUCTIONS:**

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 2EC Herbicide2**.

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

Crop injury to non-bearing fruit and nut crops may occur if **CLETHODIM 2EC Herbicide2** is improperly applied. **CLETHODIM 2EC Herbicide2** must not be applied directly over the top of these plant types. Instead, direct spray at the base of the plant where grassy weeds are growing near the ground.

**RESTRICTIONS:**

- **DO NOT** apply more than 7.4 fl oz (0.121 lb ai) per acre per application.
- **DO NOT** apply more than 4 applications per year.
- **DO NOT** apply more than 29.6 fl oz (0.485 lb ai) per acre per year.
- **DO NOT** make repeat applications less than 14-days apart.
- Sugar maples cannot be tapped for syrup within one year of **CLETHODIM 2EC Herbicide2** application.
- **DO NOT APPLY CLETHODIM 2EC Herbicide2 TO NON-BEARING FRUIT OR NUT CROPS GROWN FOR ROOT STOCK.**
- If **CLETHODIM 2EC Herbicide2** is applied as a spot treatment to non-bearing fruit and nut crops, **DO NOT** exceed the maximum rate allowed on a “per acre” basis.
- **DO NOT** use a crop oil concentrate as injury to flower and foliage may occur.
- Aerial applications for all tree fruits and tree nuts uses are prohibited.

**FALLOW LAND  
(and other non-producing agricultural areas)**

**USE INSTRUCTIONS**

**CLETHODIM 2EC Herbicide2** 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. Make application at 4.1-7.4 fl oz (0.068-0.121 lb ai)/A for annual grasses and 5.5-14.8 fl oz (0.91-0.242 lb ai)/A for perennial grasses. **CLETHODIM 2EC Herbicide2** can be tanked-mixed with 2,4-D ester or dicamba for broad-spectrum control when both grass and broadleaf weeds are the target pest. Apply a minimum of 7.4 fl oz (0.121 lb ai)/A **CLETHODIM 2EC Herbicide2** when both annual and perennial grasses occur in the same field.

- Add a crop oil concentrate/methylated seed oil at 1 qt/A or 1% v/v with 2.5-4 lb/A of ammonium sulfate to the finished spray volume. Alternatively, add a non-ionic surfactant containing at least 80% active ingredient at the rate of 1 pt per 50 gals (0.25% v/v) with 2.5-4 lb/A ammonium sulfate.

- 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 specified weed height as specified by the “Instructions for Annual and Perennial Grasses” section of this label.
- Annual grasses that emerge after the **CLETHODIM 2EC Herbicide2** application will not be controlled, and a second application may be necessary.
- The control of perennial grasses may require more than 1 application in non-tilled areas.
- 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 14.8 fl oz (0.242 lb ai) per acre per application.
- For annual grasses, **DO NOT** apply more than 4 applications per year.
- For perennial grasses, **DO NOT** apply more than 2 applications per year.
- **DO NOT** apply more than 29.6 fl oz (0.485 lb ai) per acre per year.
- **DO NOT** make repeat applications less than 14-days apart.
- **DO NOT** plant any crop for 30 days following application unless clethodim is registered for use on that crop.
- **DO NOT** apply to drought stressed grasses.
- **DO NOT** apply to grasses that have tillered, formed seed-heads or exceeded specified growth stage.
- **DO NOT** flood jet nozzles.
- **DO NOT** mow area for two (2) weeks prior to or after the **CLETHODIM 2EC Herbicide2** application.

**Table 14. CLETHODIM 2EC Herbicide2 IN TANK-MIXES TO CONTROL ANNUAL AND PERENNIAL GRASSES IN FALLOW LAND**

PRODUCT	APPLICATION RATES/ACRE <sup>1</sup>		ADJUVANT RATES	
	ANNUAL GRASSES	PERENNIAL GRASSES	GROUND	AIR
<b>CLETHODIM 2EC Herbicide2</b> + 2,4-D ester <b>OR</b> dicamba	5.5-7.4 fl oz (0.091-0.121 lb ai) + See tank-mix partner label.	7.4-14.8 fl oz (0.121-0.242 lb ai) + See tank-mix partner label.	NIS at 0.25% v/v <b>OR</b> COC at 1% v/v + AMS at 2.5 lb/A	NIS at 0.25% v/v <b>OR</b> COC at 1% v/v + AMS at 17 lb/100 gal of spray solution

<sup>1</sup> See **CLETHODIM 2EC Herbicide2** label for weed height and species control. Review dicamba and 2,4-D labels for use rates, weeds controlled and crop restrictions.

**Table 15. CLETHODIM 2EC Herbicide2 FOR THE CONTROL AND/OR SUPPRESSION OF TALL FESCUE IN NATIVE PRAIRIE WARM-SEASON GRASS RESTORATION PROJECTS**

PRODUCT	APPLICATION RATES	GRASS WEEDS CONTROLLED/SUPRESSED		WEED STAGES
		Common Name	Scientific Name	
<b>CLETHODIM 2EC Herbicide2</b>	5.5-7.4 fl oz/A (0.091-0.121 lb ai)	Tall Fescue	<i>Festuca arundinacea</i>	4 to 6 inches tall (40-60% green-up)
ADJUVANT: <b>CLETHODIM 2EC Herbicide2</b> must be applied with a non-ionic surfactant at 0.25%, plus a spray grade ammonium sulfate (AMS) at 2.5 – 4 lb/A.				
Mixing Order: Thoroughly mix spray grade ammonium sulfate in water, add <b>CLETHODIM 2EC Herbicide2</b> , then add crop oil concentrate.				

**USE INSTRUCTIONS:**

Burn or mow fields a minimum of 3 weeks prior to application to remove excess crop residue. Make application in the spring at 40 to 60% tall fescue green-up, prior to emergence of warm-season grasses.

Make application in a minimum of 15 to 20 gallons water per acre at a spray pressure of 40 to 60 PSI at the nozzle. Apply using flat fan or hollow cone nozzles.

Make application only to fields that have warm season grasses established for two (2) years. Application of **CLETHODIM 2EC Herbicide2** to emerged warm-season grasses may cause injury.

NOTE: **CLETHODIM 2EC Herbicide2** applications are most effective if applied when average nighttime temperatures are consistently greater than or equal to 47°F.

**RESTRICTIONS:**

- **DO NOT** mow area for two (2) weeks after the **CLETHODIM 2EC Herbicide2** application.
- **DO NOT** use flood jet nozzles.
- **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.

**Table 16. CLETHODIM 2EC Herbicide2 FOR THE SUPPRESSION OF TALL FESCUE SEED-HEADS IN NON-PRODUCING AGRICULTURAL AREAS**

PRODUCT	APPLICATION RATES	SUPPRESSION	APPLICATION TIMING
<b>CLETHODIM 2EC Herbicide2</b>	1.4-1.8 fl oz/A (0.023-0.03 lb ai)	Tall Fescue Seed-Heads ( <i>Festuca arundinacea</i> )	50 to 90% Tall Fescue green-up or 3 weeks prior to dormancy in the fall.

ADJUVANT: **CLETHODIM 2EC Herbicide2** must be applied with a crop oil concentrate at 1 qt/A, plus a spray grade ammonium sulfate (AMS) at 2.5 – 4 lb/A. Use crop oil concentrate at 2 pt/A with fall applications.

Mixing Order: Thoroughly mix spray grade ammonium sulfate in water, add **CLETHODIM 2EC Herbicide2**, then add crop oil concentrate.

**USE INSTRUCTIONS:**

Make application at 50 to 90% tall fescue green-up.

If less tall fescue green matter is present, use the higher **CLETHODIM 2EC Herbicide2** rate.

Make application in a minimum of 15 to 20 gallons water per acre at a spray pressure of 40 to 60 PSI at the nozzle. Make application using flat fan or hollow cone nozzles.

2,4-D ester, [Tordon® 22K][[(picloram-potassium)]], [Grazon® P+D][[(2,4-D, triisopropanolamine salt and picloram, triisopropanolamine salt)]] or [Crossbow®][[(2,4-D, butoxyethyl ester + tricopyr, butoxyethyl ester)]] may be added to this tank-mix for broadleaf control (see 2,4-D ester label for weeds controlled).

Review tank mix partner labels for use rates, weeds controlled and crop restrictions.

**RESTRICTIONS:**

- **DO NOT** mow area for two (2) weeks after the **CLETHODIM 2EC Herbicide2** application.
- **DO NOT** use flood nozzles.
- **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.

**ORNAMENTALS**

USE RATE	USE INSTRUCTIONS:
<b>Annual Grasses:</b> 4.1-7.4 fl oz (0.068-0.121 lb ai)	<b>CLETHODIM 2EC Herbicide2</b> may 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. Add a non-ionic surfactant containing at least 80% active ingredient at the rate of 1 pt per 50 gals (0.25% v/v).
<b>Perennial Grasses:</b> 5.5-14.8 fl oz (0.091-0.242 lb ai)	

**RESTRICTIONS:**

- **DO NOT** apply more than 14.8 fl oz (0.242 lb ai) per acre per application.
- For annual grasses, **DO NOT** apply more than 4 applications per year.

- For perennial grasses, **DO NOT** apply more than 2 applications per year.
- **DO NOT** apply more than 29.6 fl oz (0.485 lb ai) per acre per year.
- **DO NOT** make repeat applications less than 14-days apart.
- **DO NOT** use a crop oil concentrate as injury to flower and foliage may occur.

**IMPORTANT: CLETHODIM 2EC Herbicide2** successfully controls weeds in newly transplanted and established non-grassy ornamentals. Plant resistance to **CLETHODIM 2EC Herbicide2** at labeled rates has been found to be acceptable for the indicated genera and species listed below. It is advised 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 2EC Herbicide2** have investigated the safety factor to ornamental plants not listed on this label.

The following plants have shown a resistance to **CLETHODIM 2EC Herbicide2** 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>

#### 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, LESSER	<i>Vinca minor</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.



COMMON NAME	SCIENTIFIC NAME
DUSTY MILLER	<i>Senecio cineraria</i>
EUONYMUS	<i>Euonymus</i> spp.
GAZANIA	<i>Gazania</i> spp.
GERANIUM, HOUSE	<i>Pelargonium hortorum</i>
HEATHER, FALSE	<i>Cuphea hyssopifolia</i>
HOSTA	<i>Hosta fortunei</i>
IRIS	<i>Iris</i> spp.
JASMINE TOBACCO	<i>Nicotiana alata</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.

#### 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.
LANTANA	<i>Lantana</i> spp.
NANDINA* BAMBOO, HEAVENLY	<i>Nandinia domestica</i>

COMMON NAME	SCIENTIFIC NAME
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.

### INSTRUCTIONS FOR ANNUAL GRASSES IN ORNAMENTALS

1. Make application to actively growing grasses at specified weed heights.
2. Make application when the first grass weed species in a mixed grass weed population reaches the specified growth stage for treatment.
3. 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 <sup>1</sup>	HIGH RATE <sup>2</sup>
Barnyardgrass	<i>Echinochloa crus-galli</i>	2 – 8	5.5 (0.091 lb ai)	14.8 (0.242 lb ai)
Broadleaf Signalgrass	<i>Brachiaria platyphylla</i>	2 – 6	5.5 (0.091 lb ai)	14.8 (0.242 lb ai)
Brome				
California	<i>Bromus carinatus</i>	2 – 6	5.5 (0.091 lb ai)	14.8 (0.242 lb ai)
Cheat	<i>Bromus secalinus</i>	2 – 6	5.5 (0.091 lb ai)	14.8 (0.242 lb ai)
Downy	<i>Bromus tectorum</i>	2 – 6	5.5 (0.091 lb ai)	14.8 (0.242 lb ai)
Ripgut	<i>Bromus diandrus</i>	2 – 6	5.5 (0.091 lb ai)	14.8 (0.242 lb ai)
Canarygrass	<i>Phalaris canariensis</i>	1 – 4	5.5 (0.091 lb ai)	14.8 (0.242 lb ai)
Crabgrass				
Hairy	<i>Digitaria adscendens</i>	2 – 6**	5.5 (0.091 lb ai)	14.8 (0.242 lb ai)
Large	<i>Digitaria sanguinalis</i>	2 – 6**	5.5 (0.091 lb ai)	14.8 (0.242 lb ai)
Smooth	<i>Digitaria ischaemum</i>	2 – 6**	5.5 (0.091 lb ai)	14.8 (0.242 lb ai)
Southern	<i>Digitaria ciliaris</i>	2 – 6**	5.5 (0.091 lb ai)	14.8 (0.242 lb ai)
Crowfootgrass	<i>Dactyloctenium aegyptium</i>	2 – 6**	5.5 (0.091 lb ai)	14.8 (0.242 lb ai)
Fall Panicum	<i>Panicum dichotomiflorum</i>	2 – 8	5.5 (0.091 lb ai)	14.8 (0.242 lb ai)
Field Sandbur	<i>Cenchrus incertus</i>	2 – 6	5.5 (0.091 lb ai)	14.8 (0.242 lb ai)
Foxtail				
Giant	<i>Setaria faberi</i>	2 – 12	5.5 (0.091 lb ai)	14.8 (0.242 lb ai)
Green	<i>Setaria viridis</i>	2 – 8	5.5 (0.091 lb ai)	14.8 (0.242 lb ai)
Yellow	<i>Setaria glauca</i>	2 – 8	5.5 (0.091 lb ai)	14.8 (0.242 lb ai)
Goosegrass	<i>Eleusine indica</i>	2 – 6**	5.5 (0.091 lb ai)	14.8 (0.242 lb ai)
Itchgrass	<i>Rottboellia cochin</i>	2 – 6	5.5 (0.091 lb ai)	14.8 (0.242 lb ai)
Junglerice	<i>Echinochloa colona</i>	2 – 6	5.5 (0.091 lb ai)	14.8 (0.242 lb ai)
Lovegrass (Stinkgrass)	<i>Eragrostis cilianensis</i>	2 – 6	5.5 (0.091 lb ai)	14.8 (0.242 lb ai)
Rabbitsfootgrass	<i>Polypogon monspeliensis</i>	1 – 4	5.5 (0.091 lb ai)	14.8 (0.242 lb ai)
Red Rice	<i>Oryza sativa</i>	1 – 3	5.5 (0.091 lb ai)	14.8 (0.242 lb ai)
Ryegrass				
Hardy	<i>Lolium remotum</i>	2 – 6	5.5 (0.091 lb ai)	14.8 (0.242 lb ai)
Italian***	<i>Lolium multiflorum</i>	2 – 6	5.5 (0.091 lb ai)	14.8 (0.242 lb ai)
Seedling Johnsongrass***	<i>Sorghum halepense</i>	4 – 10	5.5 (0.091 lb ai)	14.8 (0.242 lb ai)
Shattercane	<i>Sorghum bicolor</i>	6 – 18	5.5 (0.091 lb ai)	14.8 (0.242 lb ai)

GRASS SPECIES	SCIENTIFIC NAME	WEED HEIGHT* (Inches)	RATE FL OZ/ACRE <sup>1</sup>	HIGH RATE <sup>2</sup>
Southwestern Cupgrass	<i>Eriochloa gracilis</i>	2 – 6	5.5 (0.091 lb ai)	14.8 (0.242 lb ai)
<b>Sprangletop</b>				
Amazon	<i>Leptochloa panicoides</i>	2 – 6	5.5 (0.091 lb ai)	14.8 (0.242 lb ai)
Bearded	<i>Leptochloa fascicularis</i>	2 – 6	5.5 (0.091 lb ai)	14.8 (0.242 lb ai)
Mexican	<i>Leptochloa uninervia</i>	2 – 6	5.5 (0.091 lb ai)	14.8 (0.242 lb ai)
Red	<i>Leptochloa filiformis</i>	2 – 6	5.5 (0.091 lb ai)	14.8 (0.242 lb ai)
Texas Panicum	<i>Panicum texanum</i>	2 – 6	5.5 (0.091 lb ai)	14.8 (0.242 lb ai)
<b>Volunteer Cereals</b>				
Barley	<i>Hordeum vulgare</i>	2 – 6	5.5 (0.091 lb ai)	14.8 (0.242 lb ai)
Oats	<i>Avena sativa</i>	2 – 6	5.5 (0.091 lb ai)	14.8 (0.242 lb ai)
Rye	<i>Secale cereale</i>	2 – 6	5.5 (0.091 lb ai)	14.8 (0.242 lb ai)
Wheat	<i>Triticum aestivum</i>	2 – 6	5.5 (0.091 lb ai)	14.8 (0.242 lb ai)
Volunteer Corn	<i>Zea mays</i>	4 – 12	5.5 (0.091 lb ai)	7.4 (0.121 lb ai)
Volunteer Corn	<i>Zea mays</i>	12 – 24	5.5 (0.091 lb ai)	14.8 (0.242 lb ai)
Volunteer Grain Sorghum	<i>Sorghum bicolor</i>	8 – 12	5.5 (0.091 lb ai)	14.8 (0.242 lb ai)
Wild Oats	<i>Avena fatua</i>	2 – 6	5.5 (0.091 lb ai)	14.8 (0.242 lb ai)
Wild Proso Millet	<i>Panicum miliaceum</i>	2 – 10	5.5 (0.091 lb ai)	14.8 (0.242 lb ai)
Witchgrass	<i>Panicum capillare</i>	2 – 8	5.5 (0.091 lb ai)	14.8 (0.242 lb ai)
Woolly Cupgrass	<i>Eriochloa villosa</i>	2 – 8	5.5 (0.091 lb ai)	14.8 (0.242 lb ai)

\* Generally occurs between 3-leaf stage and tillering.

\*\* Length of lateral growth.

\*\*\* non-ACC resistant.

<sup>1</sup> 5.5 fl oz (0.091 lb ai)/A = approximately 0.12 fl oz (0.002 lb ai)/1,000 sq ft

<sup>2</sup> 14.8 fl oz (0.242 lb ai)/A = approximately 0.37 fl oz (0.006 lb ai)/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).

#### INSTRUCTIONS FOR PERENNIAL GRASSES IN ORNAMENTALS

1. Make application only to actively growing grasses at specified weed heights.
2. Make application when the first grass weed species in a mixed grass weed population reaches the specified growth stage for treatment
3. 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 <sup>1</sup>	HIGH RATE <sup>2</sup>
<b>Bermudagrass (<i>Cynodon dactylon</i>)</b>			
First Application	3 (or up to 6" runners)	5.5 (0.091 lb ai)	14.8 (0.242 lb ai)
Repeat Application(s) (if regrowth occurs)	3 (or up to 6" runners)	5.5 (0.091 lb ai)	14.8 (0.242 lb ai)
<b>Foxtail Barley (<i>Hordeum jubatum</i>)</b>			
First Application	2 – 6	5.5 (0.091 lb ai)	14.8 (0.242 lb ai)
Repeat Application(s) (if regrowth occurs)	2 – 6	5.5 (0.091 lb ai)	14.8 (0.242 lb ai)
<b>Quackgrass (<i>Elytrigia repens</i>)</b>			
First Application	4 – 8	5.5 (0.091 lb ai)	14.8 (0.242 lb ai)
Repeat Application(s) (if regrowth occurs)	4 – 8	5.5 (0.091 lb ai)	14.8 (0.242 lb ai)
<b>Rhizome Johnsongrass* (<i>Sorghum halepense</i>)</b>			
First Application	12 – 24	5.5 (0.091 lb ai)	14.8 (0.242 lb ai)
Repeat Application(s) (if regrowth occurs)	6 – 18	4.1 (0.068 lb ai)	7.4 (0.121 lb ai)
<b>Wirestem Muhly (<i>Muhlenbergia frondosa</i>)</b>			
First Application	4 – 8	5.5 (0.091 lb ai)	14.8 (0.242 lb ai)
Repeat Application(s) (if regrowth occurs)	4 – 8	5.5 (0.091 lb ai)	14.8 (0.242 lb ai)

<sup>1</sup> 5.5 fl oz (0.091 lb ai)/A = approximately 0.12 fl oz (0.002 lb ai)/1,000 sq ft

<sup>2</sup> 14.8 fl oz (0.242 lb ai)/A = approximately 0.37 fl oz (0.006 lb ai)/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:

**[Plastic or Metal Rigid, Non-refillable containers small enough to shake (i.e., with capacities equal to or less than 5 gallons).] Non-refillable container. DO NOT** reuse or refill this container. Triple rinse or pressure 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 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. Offer for recycling, if available or puncture and dispose of in a sanitary landfill or by other procedures approved by state and local authorities.

Pressure rinse as follows: Empty the remaining contents into application equipment or a mix-tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix-tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

Once container is rinsed, offer for recycling if available, or puncture and dispose of in a sanitary landfill.

**[Plastic or Metal Rigid Non-refillable containers that are too large to shake (i.e., with capacities greater than 5 gallons or 50 lbs).] Non-refillable container.**

**DO NOT** reuse or refill this container. After emptying product from container, either return container to UPL NA Inc. per instructions from UPL service center (1-866-761-9397), or rinse and either recycle or dispose of the container as follows: Bottom Discharge IBC (e.g. Schuetz Caged IBC or Snyder Square Stackable).

Pressure rinsing the container before final disposal is the responsibility of the person disposing of the container. To pressure rinse the container before final disposal, empty the remaining contents from the IBC into application equipment or mix-tank. Raise the bottom of the IBC by 1.5 inches on the side which is opposite of the bottom discharge valve to promote more complete product removal.

Completely remove the top lid of the IBC. Use water pressurized to at least 40 PSI to rinse all interior portions. Continuously pump or drain rinsate into application equipment or rinsate collection system while pressure rinsing. Continue pressure rinsing for 2 minutes or until rinsate becomes clear. Replace the lid and close bottom valve.

**[Top Discharge IBC, Drums, Kegs (e.g. Snyder 120 Next Gen, Bonar B120, Drums, and Kegs).] Non-refillable container.** Triple rinsing the container before final disposal is the responsibility of the person disposing of the container. To triple rinse the container before final disposal, empty the remaining contents from this container into application equipment or rinsate collection system. Fill the container at least 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Rinse all interior surfaces. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this procedure two more times.

Once container is rinsed, offer for recycling if available or puncture and dispose of in a sanitary landfill.

Warranty and Disclaimer Statement

## The directions for use of this product

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.

The Directions for Use of this product reflect the opinion of experts based on field use and tests, and must be followed carefully. It is impossible to eliminate all risks associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as manner of use or application, weather or crop conditions, presence of other materials or other influencing factors in the use of the product, which are beyond the control of UPL NA Inc or Seller. Handling, storage, and use of the product by Buyer or User are beyond the control of UPL NA Inc and Seller. To the extent consistent with applicable law, all such risks shall be assumed by Buyer and User, and Buyer and User agree to hold UPL NA Inc and Seller harmless for any claims relating to such factors.

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[[Betamix (desmedipham + phenmedipham) [EPA Reg. 264-621]][, ] [Bronate Advanced (bromoxynil) [EPA Reg. 264-690]][, ] [and] [Progress (desmedipham + phenmedipham + ethofumesate) [EPA Reg. 264-632]] [is][are] [ a] registered trademark[s] of Bayer.]

[[Crossbow (2,4-D, butoxyethyl ester + Triclopyr, butoxyethyl ester) [EPA Reg. 62719-260]][, ] Grazon (2,4-D, triisopropanolamine salt + Picloram, triisopropanolamine salt) [EPA Reg. 62719-182]][, ] [and] [Tordon (Picloram-potassium) [EPA Reg. 62719-6]] [is][are][ a] registered trademark[s] of Dow AgroSciences LLC.]

[Synchrony (chlorimuron + thifensulfuron) [EPA Reg. 352-648] is a registered trademark of E.I. du Pont de Nemours and Company.]

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