



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY  
AND POLLUTION PREVENTION

May 20, 2020

Nathan Ehresman  
Regulatory Director, N.A.  
Albaugh, LLC  
P.O. Box 2127  
Valdosta, GA 31604-2127

Subject: Registration Review Label Mitigation for Clethodim/Label Amendment –  
Reformat Use Tables, Correct Typographical Errors and Add Specific Uses  
Product Name: Clethodim 2E  
EPA Registration Number: 42750-72  
Application Date: 04/07/2020, 05/18/2020  
Decision Numbers: 561791, 562941

Dear Mr. Ehresman:

The Agency, in accordance with the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), as amended, has completed reviewing all of the information submitted with your application to support the Registration Review of the above referenced product in connection with the Clethodim Interim Decision, and has concluded that your submission is acceptable. The agency also completed review of your amended label referred to above, submitted in connection with registration under FIFRA, as amended, and has determined the label is also acceptable.

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 the Federal Insecticide Fungicide and Rodenticide Act and is subject to review by the Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 CFR 156.10(a)(5) list examples of statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product's label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the Agency find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA approved registration, the website will be referred to the EPA's Office of Enforcement and Compliance.

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. Products shipped after 12 months from the date of this amendment must bear the new revised label. Your release for shipment of the product bearing the amended label 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.

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EPA Reg. No. 42750-72  
Decision No. 561791, 562941

If you have any questions about this letter, please contact Marc Sheahin by phone at 703-347-8639, or via email at [sheahin.marc@epa.gov](mailto:sheahin.marc@epa.gov).

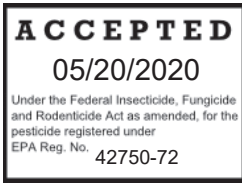
Sincerely,

A handwritten signature in black ink, appearing to read "Erik Kraft". The signature is written in a cursive style with a large, sweeping initial "E".

Erik Kraft, Product Manager 24  
Fungicide and Herbicide Branch  
Registration Division (7505P)  
Office of Pesticide Programs

Enclosure

EDITOR'S NOTE: Text in [brackets] denotes optional or explanatory language that may or may not be included in the final printed label.



CLETHODIM | GROUP 1 | HERBICIDE

# CLETHODIM 2E

**ACTIVE INGREDIENT:**

Clethodim\* ..... 26.4%

**OTHER INGREDIENTS:** ..... 73.6%

**TOTAL:** .....100.0%

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

Contains Petroleum Distillates

CLETHODIM 2E contains 2.0 lbs. clethodim per gallon.

## KEEP OUT OF REACH OF CHILDREN

## CAUTION

FIRST AID	
IF IN EYES:	<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 eye.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>
IF ON SKIN OR CLOTHING:	<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 treatment advice.</li> </ul>
IF SWALLOWED:	<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>
IF INHALED:	<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 further treatment advice.</li> </ul>
HOT LINE NUMBER	
Have the product container or label with you when calling a poison control center or doctor or going for treatment. You may also contact 1-800-424-9300 for emergency medical treatment information.	
NOTE TO PHYSICIAN - Contains petroleum distillate – vomiting may cause aspiration pneumonia.	

See inside label booklet for additional PRECAUTIONARY STATEMENTS.

EPA Reg. No. 42750-72

EPA Est. No. \_\_\_\_\_

NET CONTENTS: \_\_\_\_\_ gallons

**MANUFACTURED BY:**

Albaugh, LLC  
Ankeny, IA 50021

# PRECAUTIONARY STATEMENTS

## HAZARDS TO HUMANS AND DOMESTIC ANIMALS

**CAUTION:** Causes moderate eye irritation. Harmful if swallowed. Avoid contact with eyes, skin or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet.

## PERSONAL PROTECTIVE EQUIPMENT

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves including Barrier Laminate or Viton > 14 mils
- Shoes plus socks
- Protective eyewear

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. **DO NOT** reuse them. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

## USER SAFETY RECOMMENDATIONS

Users should:

- Users should remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Users should 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, or 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.

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

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 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.

## 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.

**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, including plants, soil, or water is:

- Coveralls
- Chemical-resistant gloves including Barrier Laminate or Viton > 14 mils
- Shoes plus socks
- Protective eyewear

### NON-AGRICULTURAL USE REQUIREMENTS

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

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

### RESISTANCE MANAGEMENT

CLETHODIM 2E is a Group 1 herbicide based on the mode of action classification system of the Weed Science Society of America and an Acetyl CoA Carboxylase inhibitor as classified by the Herbicide Resistant Action Committee (HRAC). Any weed population may contain or develop plants naturally resistant to CLETHODIM 2E and other Group 1 herbicides. Weed species with natural or acquired resistance to Group 1 herbicides may eventually dominate the weed population if Group 1 herbicides are used repeatedly in the same field or in successive years as the primary method of control for targeted species. Such resistant weed plants may not be effectively managed using Group 1 herbicides but may be effectively managed utilizing another herbicide alone or in mixtures from a different Group and/or by using cultural or mechanical practices. However, the herbicide mode of action classification by itself may not adequately address specific weeds that are resistant to specific herbicides.

Suspected herbicide-resistant weeds may be identified by these indicators:

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

Fields should be scouted prior to application to identify the weed species present and their growth stage to determine if the intended application will be effective.

Fields should be scouted after application to verify that the treatment was effective.

To delay herbicide resistance, consider using diversified weed control strategies to minimize selection for weed populations resistant to one or more herbicides:

Avoid the consecutive use of CLETHODIM 2E or other target site of action Group 1 herbicides that have a similar target site of action on the same weed species.

Using tank-mixtures or premixes with herbicides from different target site of action Groups as long as the involved products are all registered for the same use, have different sites of action, and are both effective at the tank mix or premix rate on the weed(s) of concern.

Base herbicide use on a comprehensive Integrated Pest Management (IPM) and Integrated Resistance Management (IRM) program.

Use labeled rate and directions for use to delay selection for resistance.

Monitor treated weed populations to facilitate the early identification of weeds shifts and/or weed resistance development (also provides direction on future weed management practices).

Control escaped weeds by implementing measures to avoid allowing weeds to reproduce by seed or to proliferate vegetatively is one of the best ways to contain resistant populations.

Contact your local extension specialist, certified crop advisor, and/or manufacturer for herbicide resistance management and/or integrated weed management recommendations for specific crops and resistant weed biotypes.

### **TANK MIXES**

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

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

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

### **CHEMIGATION**

May be applied to onions and garlic by sprinkler irrigation systems (see crop use instructions below). **DO NOT** apply by chemigation to any other crop, or to this crop using any other type of irrigation system.

### **PRODUCT INFORMATION**

CLETHODIM 2E is a selective postemergence herbicide for control of annual and perennial grasses. CLETHODIM 2E does not control sedges or broadleaf weeds.

In some grass species, repeated use of CLETHODIM 2E (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.

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

### **USE RESTRICTIONS**

- **DO NOT** apply a postemergence broadleaf herbicide within one day following application of CLETHODIM 2E or reduced grass control may result.
- Refer to crop specific Directions for Use for restrictions on:
  - Number of annual applications allowed per year
  - Maximum amount of product that may be applied per year per acre
  - Maximum single application rates

- **DO NOT** use on vegetable crops being grown for seed production unless specific use directions are provided in this table.
- Aerial application for all Tree Fruits and Tree Nuts is prohibited.
- **DO NOT** apply if rain is expected within 1 hour of application as unsatisfactory control may occur.
- **DO NOT** apply under conditions of stress. Applying CLETHODIM 2E under conditions that do not promote active grass growth will reduce herbicide effectiveness. These conditions include drought, excessive water, extremes in temperature, low humidity and grasses either partially controlled or stunted from prior pesticide applications. Grasses under these kinds of stressful conditions will not absorb and translocate CLETHODIM 2E effectively and will be less susceptible to herbicide activity.
- **DO NOT** allow CLETHODIM 2E to contact desirable grass crops including corn, rice, sorghum, small grains, or turf, as these and other grass crops will be injured or killed. Minor leaf spotting may occur on treated plants under certain environmental conditions. New foliage is not affected.
- Application on Long Island, New York, is restricted to no more than 16 fl. oz./A of Clethodim 2E (0.25 lb ai/A) per year.
- **DO NOT** plant rotational crops until 30 days after application of Clethodim 2E unless the crop is listed on the Clethodim 2E label

### USE PRECAUTIONS

- While all vegetable crops on this label have been tested and are resistant to CLETHODIM 2E, not all specialty varieties of these crops have been tested. It is advised that, before applying CLETHODIM 2E to specialty varieties of vegetable crops on this label, crop sensitivity 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.
- Tank mixes of CLETHODIM 2E and broadleaf herbicides may result in reduced grass control. If grass regrowth occurs, an additional application of CLETHODIM 2E may be necessary.
- Best 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. Due to this non-uniform weed emergence, no fewer than two CLETHODIM 2E applications per year are specified at the appropriate weed-growth stage rate under continuous no-till conditions.
- Grass crops including corn, rice, sorghum, small grains, or turf, etc. are highly sensitive to CLETHODIM 2E.
- Always read and follow the restrictions and limitations for all products whether used alone or in a tank mix. The most restrictive labeling of any product used applies in tank mixtures, including all crop rotational and other crop restrictions.

### APPLICATION INFORMATION

#### Application Timing

Apply CLETHODIM 2E postemergence to actively growing grasses according to rate table directions in this label. **DO NOT** apply to grass plants under stress from insufficient moisture or cold temperatures, or to grass plants exceeding specified growth stages as unsatisfactory control may result.

In arid regions where irrigation is used to supplement limited rainfall, CLETHODIM 2E must be applied as soon as possible after an irrigation (within 7 days). In arid regions, a second application of CLETHODIM 2E may provide more effective control of perennial grass weeds than a single application. Make second application to actively growing grass 2 to 3 weeks after emergence of new growth.

Cultivation of treated grasses 7 days prior to or within 7 days after application of CLETHODIM 2E may reduce weed control. **DO NOT** APPLY CLETHODIM 2E if rainfall is expected within one hour, since control may be reduced.

#### Control Symptoms

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

### ADDITION OF ADJUVANT OR CROP OIL CONCENTRATE

An acceptable non-ionic surfactant (NIS) refers to an adjuvant containing at least 80% non-ionic surfactant.

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

### **Ground Application**

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

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

### **Air Application**

Use a minimum of 3 gallons of spray solution per acre. As grass or crop foliage becomes dense, increase spray volume up to 10 gallons. For onions (dry bulbs and green), garlic, or shallots (dry bulbs and green): When applying by air **DO NOT** exceed 8 fl. oz./A (0.125 lbs ai / A) in a single application. In California, air applications to onions, garlic or shallots must be made in a minimum of 20 gallons of spray solution per acre.

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

### **Spot Treatment**

When using hand sprayers or high-volume sprayers utilizing hand guns, mix ¼% to ½% (0.33 oz. to 0.65 oz. per gallon) CLETHODIM 2E and treat to wet vegetation, while not allowing runoff of spray solution. For uses requiring crop oil concentrate, include crop oil concentrate at 1% (1.3 oz. per gallon) by volume. For uses requiring non-ionic surfactant, include non-ionic surfactant at ¼% (0.33 oz. per gallon) by volume.

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

## **CHEMIGATION – ONIONS (Dry Bulb), GREEN ONION AND GARLIC SPRINKLER IRRIGATION APPLICATION**

Only apply CLETHODIM 2E by chemigation to Onions (dry bulb and green) and Garlic crops. May be applied to onions and garlic by sprinkler irrigation systems.

Apply CLETHODIM 2E at the high rate for annual grasses (16 fl. oz. per acre - 0.250 lbs ai / A) when the grass height is at the low end of the range (application to larger grasses may not provide adequate control). Add a crop oil concentrate containing at least 15% emulsifier at 1 quart per acre.

Apply CLETHODIM 2E in 0.1 to 0.2 acre-inch of water either at the end of a regular irrigation set or as a separate application not associated with a regular irrigation using the least amount of water that provides proper distribution and coverage. Application of more than label 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 2E into the irrigation water at a constant flow.

Constant agitation must be maintained in the chemical supply tank during the entire period of herbicide application. Inject the product with a positive displacement pump into the main line ahead of a right angle turn to ensure adequate mixing. Allow time for all lines to flush the herbicide through all nozzles before turning off irrigation water. To ensure the lines are flushed and free of remaining herbicide, a dye indicator may be injected into the lines to mark the end of the application period.

### **USE RESTRICTIONS**

- **DO NOT** apply CLETHODIM 2E by chemigation in the states of Idaho, Montana, Oregon and Washington.
- **DO NOT** apply by chemigation to any other crop, or to this crop using any other type of irrigation system.
- **DO NOT** apply CLETHODIM 2E through an irrigation system connected to a public water system. Public water system means a system for the provision to the public of piped water for human consumption if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days out of



the year.

- **DO NOT** apply this product through any other type of irrigation system (i.e. Public Irrigation System).
- **DO NOT** connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system unless the label-prescribed safety devices for public water supplies are in place.
- A person knowledgeable of the chemigation system and responsible for its operation or under supervision of the responsible person, must shut the system down and make necessary adjustments should the need arise.
- The system must contain a functional check valve, vacuum relief valve, and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow.
- The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
- The pesticide injection pipeline must also contain a functional, normally closed solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
- The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
- The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.
- Systems must use a metering pump, including a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.
- **DO NOT** apply when wind speed favors drift beyond the area intended for treatment.
- Apply this product only through sprinkler irrigation systems including center pivot, lateral move, end tow, side (wheel) roll, travelers, big gun, solid set, or hand move.
- **DO NOT** connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system unless the label-prescribed safety devices for public water supplies are in place.
- **DO NOT** apply when wind speed favors drift beyond the area intended for treatment.

#### USE PRECAUTIONS

- Crop injury, lack of effectiveness, or illegal pesticide residues in the crop may result from non-uniform distribution of treated water.

If you have any questions about calibration, you should contact State Extension Service specialists, equipment manufacturers or other experts.

#### MANDATORY SPRAY DRIFT

##### Aerial Applications:

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

##### Ground Boom Applications:

- Apply with the nozzle height specified by the manufacturer, but no more than 3 feet above the ground or crop canopy. For all other ground applications, the nozzle must be no more than 3 feet from the target vegetation.
- 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 specified for the nozzle to produce the target spray volume and droplet size.
- Spray Nozzle - Use a spray nozzle that is designed for the intended application. Consider using nozzles designed to reduce drift.

#### **Controlling Droplet Size - Aircraft**

- Adjust Nozzles - Follow nozzle manufacturer's 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 USE INSTRUCTIONS FOR CLETHODIM 2E

**EDITOR'S NOTE:** Registrant may add or remove at will the state use prohibition statement "(NOT FOR USE IN \_\_\_\_\_)" {eg. (NOT FOR USE IN CALIFORNIA)}.

<b>Alfalfa, established</b>			
including: Sainfoin, Holy Clover, Birdsfoot trefoil			
<b>Minimum Time from Application to Harvest (PHI)</b>	<b>Use Rates Per Acre</b>	<b>Adjuvant Rates Per Acre</b>	<b>Specific Use Instructions</b>
15 days before grazing, feeding or harvesting (cutting) for forage or hay	6-16 fl. oz.  (0.094 – 0.250 lbs ai / A)	Non-ionic Surfactant (NIS) at 0.25% v/v  or  1 qt. Crop Oil Concentrate by ground or 1% v/v (but not less than 1 pt/A) by air	For weed control in established alfalfa, the minimum use rate is 10 fl.oz./A (0.156 lb ai / A) For repeat applications, make on a minimum of a 14-day interval.  Clethodim 2E may be applied to established alfalfa grown for seed, hay, silage, green chop, or direct grazing.  Refer to tank mix partners for feeding, grazing, and harvesting restrictions.  1-2 quarts / A of liquid fertilizer (10-34-0, 28% N or 32%N), or an equivalent amount (2.5 – 4.0 lbs / A) of spray grade ammonium sulfate (AMS) may be added to Clethodim 2E applications, in addition to the specified rate of crop oil concentrate.  The addition of AMS has shown improved grass control for difficult to control species including: quackgrass, Rhizome johnsongrass, red rice, wild oats, volunteer cereals, and volunteer corn.  For repeat applications, make on a minimum of 14-day interval
<b>Restrictions</b>			
<ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 16 fl. oz./A (0.250 lb. ai/A) in a single application.</li> <li>• <b>DO NOT</b> make more than 2 applications per year.</li> <li>• <b>DO NOT</b> apply more than 32 fl. oz./A (0.50 lb. of ai/A) per year.</li> <li>• For repeat applications make on a minimum of a 14-day interval.</li> <li>• <b>DO NOT</b> apply CLETHODIM 2E 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> <li>• <b>DO NOT</b> plant rotational crops until 30 days after application of CLETHODIM 2E</li> </ul>			

<b>Alfalfa, seedling</b>			
<b>Minimum Time from Application to Harvest (PHI)</b>	<b>Use Rates Per Acre</b>	<b>Adjuvant Rates Per Acre</b>	<b>Specific Use Instructions</b>
15 days before grazing, feeding or harvesting (cutting) for forage or hay	6 - 16 fl. oz.  (0.094 – 0.250 lbs ai / A)	Non-ionic Surfactant (NIS) at 0.25% v/v	Clethodim 2E may be applied to seedling alfalfa grown for seed, hay, silage, green chop, or direct grazing.  Refer to tank mix partners for feeding, grazing, and harvesting restrictions.  For repeat applications, make on a minimum of 14-day interval
<b>Restrictions</b>			
<ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 16 fl. oz./A (0.250 lb. ai/A) per application.</li> <li>• <b>DO NOT</b> apply more than 32 fl. oz./A (0.50 lb. ai/A) per year</li> <li>• <b>DO NOT</b> make more than 2 applications per year</li> <li>• For repeat applications make on a minimum of a 14-day interval.</li> </ul>			

<b>Artichoke (globe)</b>			
<b>Minimum Time from Application to Harvest (PHI)</b>	<b>Use Rates Per Acre</b>	<b>Adjuvant Rates Per Acre</b>	<b>Specific Use Instructions</b>
5 days	5 - 8 fl. oz.  (0.078 – 0.125 lbs ai / A)	Non-ionic Surfactant (NIS) at 0.25% v/v	For repeat applications, make on a minimum of 14-day interval
<b>Restrictions</b>			
<ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 8 fl. oz./A (0.125 lb. ai/A) per application.</li> <li>• <b>DO NOT</b> apply more than 32 fl. oz./A (0.50 lb. ai/A) per year</li> <li>• <b>DO NOT</b> make more than 4 applications per year</li> <li>• For repeat applications make on a minimum of a 14-day interval.</li> </ul>			

<b>Asparagus</b>			
<b>Minimum Time from Application to Harvest (PHI)</b>	<b>Use Rates Per Acre</b>	<b>Adjuvant Rates Per Acre</b>	<b>Specific Use Instructions</b>
1 days	5 - 8 fl. oz. (0.078 – 0.125 lbs ai / A)	Non-ionic Surfactant (NIS) at 0.25% v/v	For repeat applications, make on a minimum of 14-day interval
<b>Restrictions</b>			
<ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 8 fl. oz./A (0.125 lb. ai/A) per application.</li> <li>• <b>DO NOT</b> apply more than 32 fl. oz./A (0.50 lb. ai/A) per year</li> <li>• <b>DO NOT</b> make more than 4 applications per year</li> <li>• For repeat applications make on a minimum of a 14-day interval.</li> </ul>			

<b>Bean, Dry except Soybean</b> (Dried Shelled Pea and Bean, except soybean; subgroup 6C) including: <b>Bean (<i>Lupinus spp.</i>)</b> Grain, Sweet, White, White Sweet; <b>Bean (<i>Phaseolus spp.</i>)</b> Field, Kidney, Lima (dry), Navy, Pinto, Tepary; <b>Bean (<i>Vigna spp.</i>)</b> Adzuki Bean, Black-eyed Pea, Catjang, Cowpea, Crowder Pea, Moth Bean, Mung Bean, Rice Bean, Southern Pea, Urd Bean, Broad (dry), Chickpea (garbanzo), Guar, Lablab Bean, Lentil			
<b>Minimum Time from Application to Harvest (PHI)</b>	<b>Use Rates Per Acre</b>	<b>Adjuvant Rates Per Acre</b>	<b>Specific Use Instructions</b>
30 days	6-16 fl. oz. (0.094 – 0.250 lbs ai / A)	Non-ionic Surfactant (NIS) at 0.25% v/v  or  1 qt. Crop Oil Concentrate by ground or 1% v/v (but not less than 1 pt/A) by air	Refer to appropriate Table for reduced rate directions (NOT FOR USE IN CALIFORNIA) for the control of small annual grasses.  1-2 quarts / A of liquid fertilizer (10-34-0, 28% N or 32%N), or an equivalent amount (2.5 – 4.0 lbs / A) of spray grade ammonium sulfate (AMS) may be added to Clethodim 2E applications, in addition to the specified rate of crop oil concentrate.  The addition of AMS has shown improved grass control for difficult to control species including: quackgrass, Rhizome johnsongrass, red rice, wild oats, volunteer cereals, and volunteer corn. For repeat applications, make on a minimum of 14-day interval.
<b>Restrictions</b>			
<ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 16 fl. oz./A (0.250 lb. ai/A) in a single application.</li> <li>• <b>DO NOT</b> make more than 2 applications per year.</li> <li>• <b>DO NOT</b> apply more than 32 fl. oz./A (0.50 lb. of ai/A) per year.</li> <li>• For repeat applications make on a minimum of a 14-day interval.</li> <li>• For Reduced Rate Control for Small Annual Grasses: <b>DO NOT</b> make more than 8 applications at 4 fl oz./A (0.0625 lb ai/A) per year.</li> </ul>			

<b>Bean, Succulent Shelled</b> (Succulent Shelled Pea and bean; subgroup 6B) including: <b>Bean (<i>Phaseolus spp.</i>)</b> Broad Bean (succulent), Lima Bean (green); <b>Bean (<i>Vigna spp.</i>)</b> Black-eyed Pea, Cowpea, Southern Pea			
<b>Minimum Time from Application to Harvest (PHI)</b>	<b>Use Rates Per Acre</b>	<b>Adjuvant Rates Per Acre</b>	<b>Specific Use Instructions</b>
21 days	6-8 fl. oz. (0.094 - 0.125 lbs ai / A)	Non-ionic Surfactant (NIS) at 0.25% v/v  or  1 qt. Crop Oil Concentrate by ground or 1% v/v (but not less than 1 pt/A) by air	Refer to appropriate Table for reduced rate directions (NOT FOR USE IN CALIFORNIA) for the control of small annual grasses.  1-2 quarts / A of liquid fertilizer (10-34-0, 28% N or 32%N), or an equivalent amount (2.5 – 4.0 lbs / A) of spray grade ammonium sulfate (AMS) may be added to Clethodim 2E applications, in addition to the specified rate of crop oil concentrate.  The addition of AMS has shown improved grass control for difficult to control species including: quackgrass, rhizome Johnsongrass, red rice, wild oats, volunteer cereals and volunteer corn.
<b>Restrictions</b>			
<ul style="list-style-type: none"> <li>• <b>DO NOT</b> use on vegetable crops being grown for seed production unless specific use directions are provided in this table.</li> <li>• <b>DO NOT</b> apply more than 8 fl. oz./A (0.125 lbs ai/A) in a single application.</li> <li>• <b>DO NOT</b> make more than 1 application per year.</li> <li>• For repeat applications make on a minimum of a 14-day interval.</li> <li>• <b>DO NOT</b> apply more than 8 fl. oz./A (0.125 lbs ai/A) per year.</li> </ul>			

<b>Beet, Garden</b>			
<b>Minimum Time from Application to Harvest (PHI)</b>	<b>Use Rates Per Acre</b>	<b>Adjuvant Rates Per Acre</b>	<b>Specific Use Instructions</b>
30 days	6-8 fl. oz. (0.094 - 0.125 lbs ai / A)	Non-ionic Surfactant (NIS) at 0.25% v/v  or  1% v/v Crop Oil Concentrate in the finished spray volume	For repeat applications make on a minimum of a 14-day interval.
<b>Restrictions</b>			
<ul style="list-style-type: none"> <li>• <b>DO NOT</b> use on vegetable crops being grown for seed production unless specific use directions are provided in this table.</li> <li>• <b>DO NOT</b> apply more than 8 fl. oz./A (0.125 lbs ai/A) in a single application.</li> <li>• <b>DO NOT</b> make more than 4 applications per year.</li> <li>• For repeat applications make on a minimum of a 14-day interval.</li> <li>• <b>DO NOT</b> apply more than 32 fl. oz./A (0.5 lbs ai/A) per year.</li> </ul>			

<b>Berry, Low Growing</b> (except Cranberry and Strawberry; subgroup 13-07G) including: Bearberry, Bilberry, Blueberry (lowbush), Cloudberry, Lingonberry, Muntries, Patridgeberry			
<b>Minimum Time from Application to Harvest (PHI)</b>	<b>Use Rates Per Acre</b>	<b>Adjuvant Rates Per Acre</b>	<b>Specific Use Instructions</b>
45 days	4 – 8 fl. oz. (0.063- 0.125 lbs ai / A)	Non-ionic Surfactant (NIS) at 0.25% v/v	For repeat applications make on a minimum of a 14-day interval.
<b>Restrictions</b>			
<ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 8 fl. oz./A (0.125 lbs ai/A) in a single application.</li> <li>• <b>DO NOT</b> make more than 4 applications per year.</li> <li>• <b>DO NOT</b> apply more than 32 fl. oz./A (0.5 lbs ai/A) per year.</li> <li>• For repeat applications, make on a minimum of a 14-day interval.</li> </ul>			

<b>Brassica Vegetables, Head and Stem</b> (subgroup 5-16) including: Broccoli, Broccoli (Chinese), Brussels sprouts, Cabbage, Cabbage (napa, Chinese), Chinese mustard, cavolo broccoli, kohlrabi, Cauliflower cultivars, varieties and/or hybrids of these commodities			
<b>Minimum Time from Application to Harvest (PHI)</b>	<b>Use Rates Per Acre</b>	<b>Adjuvant Rates Per Acre</b>	<b>Specific Use Instructions</b>
30 days	6-8 fl. oz. (0.094 - 0.125 lbs ai / A)	Non-ionic Surfactant (NIS) at 0.25% v/v  or  1% v/v Crop Oil Concentrate in the finished spray volume	For repeat applications make on a minimum of a 14-day interval.
<b>Restrictions</b>			
<ul style="list-style-type: none"> <li>• <b>DO NOT</b> use on vegetable crops being grown for seed production unless specific use directions are provided in this table.</li> <li>• <b>DO NOT</b> apply more than 8 fl. oz./A (0.125 lbs ai/A) in a single application.</li> <li>• <b>DO NOT</b> make more than 4 applications per year.</li> <li>• <b>DO NOT</b> apply more than 32 fl. oz./A (0.50 lbs ai/A) per year.</li> <li>• For repeat applications make on a minimum of a 14-day interval.</li> </ul>			

**Brassica Leafy Greens** (except Radish Leaves, Turnip Greens and Watercress; subgroup 4-16B)  
including: Arugula, Broccoli (Chinese, Rabb), Cabbage, ((Abyssinian, Chinese, bok choy, Seakale), Collards, Cress (garden, upland), Hanover salad, Kale, Maca (leaves), Mizuna, Mustard (greens, spinach), Rape greens, Rocket (wild), Shepherd's purse, Cultivars, varieties and hybrids of these commodities.

Minimum Time from Application to Harvest (PHI)	Use Rates Per Acre	Adjuvant Rates Per Acre	Specific Use Instructions
14 days	6 - 8 fl. oz.  (0.094 - 0.125 lbs ai / A)	Non-ionic Surfactant (NIS) at 0.25% v/v  or  1% v/v Crop Oil Concentrate in the finished spray volume	For repeat applications make on a minimum of a 14-day interval.

**Restrictions**

- **DO NOT** use on vegetable crops being grown for seed production unless specific use directions are provided in this table.
- **DO NOT** apply more than 8 fl. oz./A (0.125 lbs ai/A) per application
- **DO NOT** apply more than 32 fl. oz./A (0.485 lb. ai/A) per year
- **DO NOT** make more than 4 applications per year.
- For repeat application, make a minimum of a 14-day interval

**Bushberry** (Bushberry subgroup 13-07B)  
including: Aronia Berry, Blueberry (highbush), Chilean Guava, Cranberry (highbush), Currant (black, buffalo, native, red), Elderberry, European Barberry, Gooseberry, Honeysuckle (edible), Jostaberry, Juneberry, Saskatoon Berry, Native Currant, Salal, Sea Buckthorn, Cultivars, varieties and/or hybrids of these.

Minimum Time from Application to Harvest (PHI)	Use Rates Per Acre	Adjuvant Rates Per Acre	Specific Use Instructions
14 days	6 - 8 fl. oz.  (0.094 - 0.125 lbs ai / A)	Non-ionic Surfactant (NIS) at 0.25% v/v	For repeat applications make on a minimum of a 14-day interval.

**Restrictions**

- **DO NOT** apply more than 8 fl. oz./A (0.125 lbs ai/A) per application.
- **DO NOT** make more than 4 applications per year.
- For repeat applications make on a minimum of a 14-day interval.
- **DO NOT** apply more than 32 fl. oz./A (0.50 lb. ai/A) per year.

**Caneberry** (subgroup 13-07A)  
including: Blackberry, Loganberry, Raspberry (black, red, wild), Cultivars, varieties and/or hybrids of these.

Minimum Time from Application to Harvest (PHI)	Use Rates Per Acre	Adjuvant Rates Per Acre	Specific Use Instructions
7 days	6 - 8 fl. oz.  (0.094 - 0.125 lbs ai / A)	Non-ionic Surfactant (NIS) at 0.25% v/v	For repeat applications make on a minimum of a 14-day interval.

**Restrictions**

- **DO NOT** apply more than 8 fl. oz./A (0.125 lbs ai/A) per application.
- **DO NOT** apply more than 32 fl. oz./A (0.50 lb. ai/A) per year.
- **DO NOT** make more than 4 applications per year.
- For repeat applications make on a minimum of a 14-day interval.

**Canola** (except flax seed, mustard seed, and sesame seed; subgroup 20A) (NOT FOR USE IN CALIFORNIA) including: Borage, Crambe, Cuphea, Echium, Gold of Pleasure (Camelina), Hare's Ear Mustard, Lesquerella, Lunaria, Meadowfoam, Milkweed, Oil Radish, Poppy seed, Rapeseed (canola), Sweet Rocket

Minimum Time from Application to Harvest (PHI)	Use Rates Per Acre	Adjuvant Rates Per Acre	Specific Use Instructions
70 days	4-6 fl. oz. (0.063 - 0.094 lbs ai / A)	Non-ionic Surfactant (NIS) at 0.25% v/v  or 1% v/v Crop Oil Concentrate in the finished spray volume	Crop injury may occur when CLETHODIM 2E is applied during the bloom period.

**Restrictions**

- **DO NOT** apply more than 6 fl. oz./A (0.094 lbs ai/A) in a single application.
- **DO NOT** make more than 1 application per year using reduced application rates.
- **DO NOT** apply more than 6 fl. oz./A (0.094 lbs ai/A) per year.
- **DO NOT** apply after crop has begun bolting.

**Carrot**

Minimum Time from Application to Harvest (PHI)	Use Rates Per Acre	Adjuvant Rates Per Acre	Specific Use Instructions
30 days	6 – 8 fl. oz. (0.094 - 0.125 lbs ai / A)	Non-ionic Surfactant (NIS) at 0.25% v/v  or 1% v/v Crop Oil Concentrate in the finished spray volume	For repeat applications make on a minimum of a 14-day interval.

**Restrictions**

- **DO NOT** use on vegetable crops being grown for seed production unless specific use directions are provided in this table.
- **DO NOT** apply more than 8 fl. oz./A (0.125 lbs ai/A) in a single application.
- **DO NOT** make more than 4 applications per year.
- For repeat applications make on a minimum of a 14-day interval.
- **DO NOT** apply more than 32 fl. oz./A (0.5 lbs ai/A) per year.

**Clover**

Minimum Time from Application to Harvest (PHI)	Use Rates Per Acre	Adjuvant Rates Per Acre	Specific Use Instructions
15 days before grazing, feeding, or harvesting (cutting) for forage or hay	6-16 fl. oz. (0.094 – 0.250 lbs ai / A)	Non-ionic Surfactant (NIS) at 0.25% v/v  or 1% v/v Crop Oil Concentrate in the finished spray volume	For use on clover grown in Idaho, Oregon, and Washington only.

**Restrictions**

- **DO NOT** apply more than 16 fl. oz./A (0.250 lbs ai/A) in a single application.
- **DO NOT** make more than 1 application per year.
- **DO NOT** apply more than 16 fl. oz./A (0.250 lbs ai/A) per year.

<b>Corn, Field</b>			
For burndown of existing stands of glyphosate resistant field corn or volunteer glyphosate resistant field corn prior to replanting field corn. See Directions for Use in glyphosate resistant Field Corn (Burndown) table.			
<b>Minimum Time from Application to Harvest (PHI)</b>	<b>Use Rates Per Acre</b>	<b>Adjuvant Rates Per Acre</b>	<b>Specific Use Instructions</b>
90 days	3 fl. oz. (0.023 lbs ai / A)	Non-ionic Surfactant (NIS) at 0.25% v/v <b>DO NOT</b> use COC or MSO with CLETHODIM 2EC in this use pattern.	To control the existing stand, replant no sooner than 6 days after application.
<b>Restrictions</b>			
<ul style="list-style-type: none"> <li>• <b>DO NOT</b> use on vegetable crops being grown for seed production unless specific use directions are provided in this table.</li> <li>• <b>DO NOT</b> apply more than 3 fl. oz./A (0.023 lbs ai/A) in a single application.</li> <li>• <b>DO NOT</b> make more than 1 application per year.</li> <li>• <b>DO NOT</b> apply more than 3 fl. oz./A (0.023 lbs ai/A) per year.</li> </ul>			

<b>Cotton</b>			
including: cotton grown for seed			
<b>Minimum Time from Application to Harvest (PHI)</b>	<b>Use Rates Per Acre</b>	<b>Adjuvant Rates Per Acre</b>	<b>Specific Use Instructions</b>
60 days	6-16 fl. oz. (0.094 – 0.250 lbs ai / A)	Non-ionic Surfactant (NIS) at 0.25% v/v  or 1 qt. Crop Oil Concentrate by ground or 1% v/v (but not less than 1 pt/A) by air	The addition of AMS has shown improved grass control for difficult to control species including: quackgrass, Rhizome johnsongrass, red rice, wild oats, volunteer cereals, and volunteer corn. For repeat applications make on a minimum of a 14-day interval.
<b>Restrictions</b>			
<ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 16 fl. oz./A (0.250 lb. ai/A) in a single application.</li> <li>• <b>DO NOT</b> make more than 2 applications per year.</li> <li>• For repeat applications make on a minimum of a 14-day interval.</li> <li>• <b>DO NOT</b> apply more than 32 fl. oz./A (0.50 lb. of ai/A) per year.</li> <li>• <b>DO NOT</b> graze treated fields or feed treated forage or hay to livestock.</li> </ul>			

<b>Cranberry</b>			
<b>Minimum Time from Application to Harvest (PHI)</b>	<b>Use Rates Per Acre</b>	<b>Adjuvant Rates Per Acre</b>	<b>Specific Use Instructions</b>
30 days	6 – 8 fl. oz. (0.094 - 0.125 lbs ai / A)	Non-ionic Surfactant (NIS) at 0.25% v/v  or 1% v/v Crop Oil Concentrate in the finished spray volume	For repeat applications make on a minimum of a 14-day interval.
<b>Restrictions</b>			
<ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 8 fl. oz./A (0.125 lbs ai/A) in a single application.</li> <li>• <b>DO NOT</b> make more than 4 applications per year.</li> <li>• For repeat applications make on a minimum of a 14-day interval.</li> <li>• <b>DO NOT</b> apply more than 32 fl. oz./A (0.5 lbs ai/A) per year.</li> <li>• <b>DO NOT</b> apply between the "hook" stage and full fruit set.</li> </ul>			



<b>Cucurbits</b>			
(Subgroup 9A including: Citron melon, Honeydew melon, Muskmelon (all), Watermelon, Cantaloupe (all) (Subgroup 9B) including: Chayote (fruit), Chinese waxgourd, (Chinese preserving melon), Cucumber, Gherkin, Gourd edible (includes hyotan, cucuzza, hechima, Chinese okra) <i>Momordica</i> spp. (includes balsam apple, balsam pear, bittermelon, Chinese cucumber), Pumpkin, Squash (summer), Squash (winter includes butternut squash, calabaza, hubbard squash, acorn squash, spaghetti squash)			
<b>Minimum Time from Application to Harvest (PHI)</b>	<b>Use Rates Per Acre</b>	<b>Adjuvant Rates Per Acre</b>	<b>Specific Use Instructions</b>
14 days	6 – 8 fl. oz.  (0.094 - 0.125 lbs ai / A)	Non-ionic Surfactant (NIS) at 0.25% v/v  or  1% Crop Oil Concentrate in the finished spray volume	For repeat applications make on a minimum of a 14-day interval.
<b>Restrictions</b>			
<ul style="list-style-type: none"> <li>• <b>DO NOT</b> use on vegetable crops being grown for seed production unless specific use directions are provided in this table.</li> <li>• <b>DO NOT</b> apply more than 8 fl. oz./A (0.125 lbs ai/A) in a single application.</li> <li>• <b>DO NOT</b> make more than 4 applications per year.</li> <li>• For repeat applications make on a minimum of a 14-day interval.</li> <li>• <b>DO NOT</b> apply more than 32 fl. oz./A (0.25 lbs ai/A) per year.</li> </ul>			

<b>Fallow Land</b> (and other non-producing agricultural areas) <b>Conifer Trees, Non-Crop or Non-Planted Areas</b>			
<b>Minimum Time from Application to Harvest (PHI)</b>	<b>Use Rates Per Acre</b>	<b>Adjuvant Rates Per Acre</b>	<b>Specific Use Instructions</b>
N/A	6-16 fl. oz.  (0.094 – 0.250 lbs ai / A)	Non-ionic Surfactant (NIS) at 0.25% v/v  or  Crop Oil Concentrate Methylated Seed Oil at 1 qt./A or 1% v/v	For repeat applications make on a minimum of a 14-day interval.
<b>Restrictions</b>			
<ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 16 fl. oz./A (0.250 lb. ai/A) in a single application.</li> <li>• <b>DO NOT</b> make more than 2 applications per year.</li> <li>• For repeat applications make on a minimum of a 14-day interval.</li> <li>• <b>DO NOT</b> apply more than 32 fl. oz./A (0.50 lbs ai/A) per year.</li> <li>• <b>DO NOT</b> plant any crop for 30 days after application unless clethodim is registered for use in that crop.</li> </ul>			

<b>Flax</b> (NOT FOR USE IN CALIFORNIA)			
<b>Minimum Time from Application to Harvest (PHI)</b>	<b>Use Rates Per Acre</b>	<b>Adjuvant Rates Per Acre</b>	<b>Specific Use Instructions</b>
60 days	6 – 8 fl. oz.  (0.094 - 0.125 lbs ai / A)	Non-ionic Surfactant (NIS) at 0.25% v/v  or  1% v/v Crop Oil Concentrate in the finished spray volume	Apply prior to bloom. Crop injury may occur when CLETHODIM 2E is applied during the bloom period.  For repeat applications make on a minimum of a 14-day interval.
<b>Restrictions</b>			
<ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 8 fl. oz./A (0.125 lbs ai/A) in a single application.</li> <li>• <b>DO NOT</b> make more than 2 applications per year.</li> <li>• <b>DO NOT</b> apply more than 16 fl. oz./A (0.25 lbs ai/A) per year.</li> <li>• For Reduced Rate Control for Small Annual Grasses: <b>DO NOT</b> make more than 4 applications at 4 fl oz./A (0.0625 lb ai/A) per year.</li> <li>• For repeat applications make on a minimum of a 14-day interval.</li> </ul>			

<b>Fruiting Vegetables</b> (except Okra and Tomato; crop group 8-10) including: Bell Pepper and non-Bell Pepper, Eggplant, Groundcherry, Pepino, Tomatillo			
<b>Minimum Time from Application to Harvest (PHI)</b>	<b>Use Rates Per Acre</b>	<b>Adjuvant Rates Per Acre</b>	<b>Specific Use Instructions</b>
20 days	6 – 8 fl. oz. (0.094 - 0.125 lbs ai / A)	Non-ionic Surfactant (NIS) at 0.25% v/v  or  1% v/v Crop Oil Concentrate in the finished spray volume	For repeat applications make on a minimum of a 14-day interval.
<b>Restrictions</b>			
<ul style="list-style-type: none"> <li>• <b>DO NOT</b> use on vegetable crops being grown for seed production unless specific use directions are provided in this table.</li> <li>• <b>DO NOT</b> apply more than 8 fl. oz./A (0.125 lbs ai/A) in a single application.</li> <li>• <b>DO NOT</b> make more than 4 applications per year.</li> <li>• For repeat applications make on a minimum of a 14-day interval.</li> <li>• <b>DO NOT</b> apply more than 32 fl. oz./A (0.5 lbs ai/A) per year.</li> </ul>			

<b>Herbs</b> (subgroup 19A) including: Angelica, Balm, Basil, Borage, Bumet, Chamomile, Catnip, Chervil (dried) , Chive, Chive, Chinese, Clary, Coriander (leaf), Costmary, Culantro (leaf), Curry (leaf), Dill (dillweed), Horehound, Hyssop, Lavender, Lovage (leaf), Marigold, Marjoram ( <i>Origanum</i> spp.), Nasturtium, Parsley (dried), Pennyroyal, Rosemary, Rue, Sage, Savory, Summer and Winter			
<b>Minimum Time from Application to Harvest (PHI)</b>	<b>Use Rates Per Acre</b>	<b>Adjuvant Rates Per Acre</b>	<b>Specific Use Instructions</b>
14 days	6 – 8 fl. oz. (0.094 - 0.125 lbs ai / A)	Non-ionic Surfactant (NIS) at 0.25% v/v  or  1% v/v Crop Oil Concentrate in the finished spray volume	CLETHODIM 2E has not been tested on all herbs, and herb varieties. It is the responsibility of the user to test CLETHODIM 2E on a small portion of the crop to be treated before treating the entire field.  Crop sensitivity must be verified to CLETHODIM 2E on a small area of the herb crop, at the desired CLETHODIM 2E rate and with the same crop oil concentrate that will be used on the herb field. If no crop response is evident seven (7) days after treatment,  CLETHODIM 2E may be used on the entire field at the rate tested and with the same crop oil used in the sensitivity test.  For repeat applications make on a minimum of a 14-day interval.
<b>Restrictions</b>			
<ul style="list-style-type: none"> <li>• <b>DO NOT</b> use on vegetable crops being grown for seed production unless specific use directions are provided in this table.</li> <li>• <b>DO NOT</b> apply more than 8 fl. oz./A (0.125 lbs ai/A) in a single application.</li> <li>• <b>DO NOT</b> make more than 4 applications per year.</li> <li>• For repeat applications make on a minimum of a 14-day interval.</li> <li>• <b>DO NOT</b> apply more than 32 fl. oz./A (0.5 lbs ai/A) per year.</li> </ul>			

<b>Hops</b>			
<b>Minimum Time from Application to Harvest (PHI)</b>	<b>Use Rates Per Acre</b>	<b>Adjuvant Rates Per Acre</b>	<b>Specific Use Instructions</b>
21 days	6 – 8 fl. oz. (0.094 - 0.125 lbs ai / A)	Non-ionic Surfactant (NIS) at 0.25% v/v  or  1% v/v Crop Oil Concentrate in the finished spray volume	For repeat applications make on a minimum of a 14-day interval.
<b>Restrictions</b>			
<ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 8 fl. oz./A (0.125 lbs ai/A) in a single application.</li> <li>• <b>DO NOT</b> make more than 4 applications per year.</li> <li>• For repeat applications make on a minimum of a 14-day interval.</li> <li>• <b>DO NOT</b> apply more than 32 fl. oz./A (0.5 lbs ai/A) per year.</li> </ul>			

<b>Leaf Petiole Vegetables</b> (subgroup 22B) (NOT FOR USE IN CALIFORNIA) including: Cardoon, Celery, Celery (Chinese), Fuki, Rhubarb, Udo, Zuiki, Cultivars, varieties and/or hybrids of these commodities			
<b>Minimum Time from Application to Harvest (PHI)</b>	<b>Use Rates Per Acre</b>	<b>Adjuvant Rates Per Acre</b>	<b>Specific Use Instructions</b>
30 days	6 – 8 fl. oz. (0.094 - 0.125 lbs ai / A)	Non-ionic Surfactant (NIS) at 0.25% v/v  or  1% v/v Crop Oil Concentrate in the finished spray volume	For repeat applications make on a minimum of a 14-day interval.
<b>Restrictions</b>			
<ul style="list-style-type: none"> <li>• <b>DO NOT</b> use on vegetable crops being grown for seed production unless specific use directions are provided in this table.</li> <li>• <b>DO NOT</b> apply more than 8 fl. oz./A (0.125 lbs ai/A) in a single application.</li> <li>• <b>DO NOT</b> make more than 4 applications per year.</li> <li>• For repeat applications make on a minimum of a 14-day interval.</li> <li>• <b>DO NOT</b> apply more than 32 fl. oz./A (0.5 lbs ai/A) per year.</li> </ul>			

<b>Leafy Greens</b> (subgroup 4-16A) (NOT FOR USE IN CALIFORNIA) including: Amaranth (Chinese, 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, Dot-nam-mul, Ebolo, Endive, Farnetflower, Feather cockscomb, Good King Henry, Huauzontle, Jute, leaves, Lettuce (bitter, head, leaf), Orach, Parsley (fresh leaves), Plantain (Buckhorn), Primrose (English), Purslane (garden, winter), Radicchio (red chicory), Spinach (Malabar, New Zealand, Tanier), Swiss chard, Violet (Chinese leaves), Cultivars, varieties and / or hybrids of these commodities.			
<b>Minimum Time from Application to Harvest (PHI)</b>	<b>Use Rates Per Acre</b>	<b>Adjuvant Rates Per Acre</b>	<b>Specific Use Instructions</b>
14 days	6 – 8 fl. oz. (0.094 - 0.125 lbs ai / A)	Non-ionic Surfactant (NIS) at 0.25% v/v  or  1% v/v Crop Oil Concentrate in the finished spray volume	For repeat applications make on a minimum of a 14-day interval.
<b>Restrictions</b>			
<ul style="list-style-type: none"> <li>• <b>DO NOT</b> use on vegetable crops being grown for seed production unless specific use directions are provided in this table.</li> <li>• <b>DO NOT</b> apply more than 8 fl. oz./A (0.125 lbs ai/A) in a single application.</li> <li>• <b>DO NOT</b> make more than 4 applications per year.</li> <li>• For repeat applications make on a minimum of a 14-day interval.</li> <li>• <b>DO NOT</b> apply more than 32 fl. oz./A (0.5 lbs ai/A) per year.</li> </ul>			

<b>Legume Vegetables, Edible Podded</b> (subgroup 6A) including: <b>Bean (<i>Phaseolus spp.</i>)</b> runner, snap, wax; <b>Bean (<i>Vigna spp.</i>)</b> asparagus, Chinese longbean, Moth yardlong, jackbean; <b>Pea (<i>Pisum spp.</i>)</b> dwarf, edible-pod, snow, sugar snap, pigeon; <b>Soybean</b> (immature seed), <b>Sword bean</b>			
<b>Minimum Time from Application to Harvest (PHI)</b>	<b>Use Rates Per Acre</b>	<b>Adjuvant Rates Per Acre</b>	<b>Special Use Instructions</b>
21 days	6 – 8 fl. oz. (0.094 - 0.125 lbs ai / A)	Non-ionic Surfactant (NIS) at 0.25% v/v  or  1 qt. Crop Oil Concentrate by ground or 1% v/v (but not less than 1 pt/A) by air	Refer to appropriate Table for reduced rate directions (NOT FOR USE IN CALIFORNIA) for the control of small annual grasses.  For peas apply before bloom, but no later than 21 days before harvest.  The addition of AMS has shown improved grass control for difficult to control species including: quackgrass, rhizome Johnsongrass, red rice, wild oats, volunteer cereals, and volunteer corn.
<b>Restrictions</b>			
<ul style="list-style-type: none"> <li>• <b>DO NOT</b> use on vegetable crops being grown for seed production unless specific use directions are provided in this table.</li> <li>• <b>DO NOT</b> apply more than 8 fl. oz./A (0.125 lbs ai/A) in a single application.</li> <li>• <b>DO NOT</b> make more than 1 application per year.</li> <li>• <b>DO NOT</b> apply more than 8 fl. oz./A (0.125 lbs ai/A) per year.</li> <li>• For Reduced Rate Control for Small Annual Grasses: <b>DO NOT</b> make more than 2 applications at 4 fl. oz./A (0.0625 lb ai/A) per year.</li> </ul>			

<b>Mustard Seed</b> (NOT FOR USE IN CALIFORNIA)			
<b>Minimum Time from Application to Harvest (PHI)</b>	<b>Use Rates Per Acre</b>	<b>Adjuvant Rates Per Acre</b>	<b>Specific Use Instructions</b>
75 days	4-6 fl. oz. (0.063 - 0.094 lbs ai / A)	Non-ionic Surfactant (NIS) at 0.25% v/v  or  1% v/v Crop Oil Concentrate in the finished spray volume	For repeat applications make on a minimum of a 14-day interval.
<b>Restrictions</b>			
<ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 6 fl. oz./A (0.094 lbs ai/A) in a single application.</li> <li>• <b>DO NOT</b> make more than 2 applications per year.</li> <li>• For repeat applications make on a minimum of a 14-day interval.</li> <li>• <b>DO NOT</b> apply more than 12 fl. oz./A (0.188 lb. ai/A.) per year.</li> <li>• <b>DO NOT</b> apply after crop has begun bolting. Crop injury may occur when CLETHODIM 2E is applied during the bloom period.</li> <li>• For Reduced Rate Control for Small Annual Grasses: <b>DO NOT</b> make more than 3 applications at 4 fl oz./A (0.0625 lb ai/A) per year.</li> </ul>			

<b>Okra</b>			
<b>Minimum Time from Application to Harvest (PHI)</b>	<b>Use Rates Per Acre</b>	<b>Adjuvant Rates Per Acre</b>	<b>Specific Use Instructions</b>
3 days	6 – 8 fl. oz. (0.094 - 0.125 lbs ai / A)	Non-ionic Surfactant (NIS) at 0.25% v/v	For repeat applications make on a minimum of a 14-day interval
<b>Restrictions</b>			
<ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 8 fl. oz./A (0.125 lbs ai/A) per application</li> <li>• <b>DO NOT</b> make more than 4 applications per year.</li> <li>• For repeat applications make on a minimum of a 14-day interval.</li> <li>• <b>DO NOT</b> apply more than 32 fl. oz./A (0.5 lb. ai/A) per year</li> </ul>			

<b>Onions</b> (Dry bulbs only, subgroup 3-07A) including: Daylily (bulb), Fritillaria (bulb), Garlic (bulb, great-headed bulb, serpent bulb), Lily (bulb), Onion (bulb, Chinese bulb, pearl, potato bulb), Shallot (bulb), Cultivars, varieties and/or hybrids of these.			
<b>Minimum Time from Application to Harvest (PHI)</b>	<b>Use Rates Per Acre</b>	<b>Adjuvant Rates Per Acre</b>	<b>Specific Use Instructions</b>
45 days	6-16 fl. oz. (0.094 – 0.250 lbs ai / A)	Non-ionic Surfactant (NIS) at 0.25% v/v  or  1% v/v Crop Oil Concentrate in the finished spray volume	Minimum of 20 gal/A spray volume by ground in entire U.S. Minimum of 20 gal/A spray volume by air in California. In states other than California, air applications to onions or garlic must be made in a minimum of 10 gal/A. For repeat applications make on a minimum of a 14-day interval.
<b>Restrictions</b>			
<ul style="list-style-type: none"> <li>• <b>DO NOT</b> use on vegetable crops being grown for seed production unless specific use directions are provided in this table.</li> <li>• <b>DO NOT</b> apply more than 16 fl oz./A (0.25 lb ai/A) per application.</li> <li>• <b>DO NOT</b> make more than 2 applications per year.</li> <li>• For repeat applications make on a minimum of a 14-day interval.</li> <li>• <b>DO NOT</b> apply more than 32 fl oz./A (0.50 lb ai/A) per year.</li> <li>• When applying by air, <b>DO NOT</b> exceed 8 fl oz./A (0.125 lb ai/A) per application and 16 fl oz./A (0.25 lb ai/A) per year.</li> <li>• If CLETHODIM 2E is applied as a spot treatment to onion or garlic, <b>DO NOT</b> exceed the maximum rate allowed on a “per acre” basis.</li> <li>• In California, <b>DO NOT</b> apply CLETHODIM 2E to garlic or onion until the crop has at least two full leaves. Use a 14-day spray interval between the application of CLETHODIM 2E and liquid nitrogen or other herbicide applications. Injury to crop may occur when shorter intervals are observed.</li> </ul> <p><b>For Garlic</b></p> <ul style="list-style-type: none"> <li>• When applying by ground, <b>DO NOT</b> exceed 8 fl. oz./A (0.125 lb. ai/A) per application or 16 fl. oz./A (0.250 lb ai/A) per year.</li> </ul>			

**Onion, Green** (subgroup 3-07B)\* including: Chive (fresh leaves), Chive (Chinese, fresh leaves), Elegans Hosta, Fritillaria (leaves), Kurrat, Lady’s Leek, Leek, Leek (wild), Onion (Beltsville bunching, fresh, green, macrostem, tree tops, Onion, welsh tops), Shallot (fresh leaves) Cultivars, varieties, and/or hybrids of these commodities.

Minimum Time from Application to Harvest (PHI)	Use Rates Per Acre	Adjuvant Rates Per Acre	Specific Use Instructions
14 days	6 – 8 fl. oz. (0.094 - 0.125 lbs ai / A)	Non-ionic Surfactant (NIS) at 0.25% v/v or 1% v/v Crop Oil Concentrate in the finished spray volume	For repeat applications make on a minimum of a 14-day interval.

**Restrictions**

- **DO NOT** use on vegetable crops being grown for seed production unless specific use directions are provided in this table.
- **DO NOT** apply more than 8 fl oz./A (0.125 lb ai/A) per application.
- **DO NOT** make more than 4 applications per year.
- For repeat applications make on a minimum of a 14-day interval.
- **DO NOT** apply more than 32 fl oz./A (0.500 lb ai/A) per year.
- For air applications to onion, **DO NOT** exceed 8 fl oz./A (0.125 lb ai/A) per application.
- In California for air applications to onion, **DO NOT** exceed 2 applications per year.
- If CLETHODIM 2E is applied as a spot treatment to onion or garlic, **DO NOT** exceed the maximum rate allowed on a “per acre” basis.
- In California, **DO NOT** apply CLETHODIM 2E to onion or garlic until the crop has at least two full leaves. Use a 14-day spray interval between the application of CLETHODIM 2E and liquid nitrogen or other herbicide applications. Injury to crop may occur when shorter intervals are observed.

**Ornamentals**

Minimum Time from Application to Harvest (PHI)	Use Rates Per Acre	Adjuvant Rates Per Acre	Specific Use Instructions
N/A	6-16 fl. oz. (0.094 – 0.250 lbs ai / A)	Use of crop oil concentrate is not advised since it may injure flowers and foliage. See Special Use Instructions	Add a non-ionic surfactant containing at least 80% active ingredient at the rate of 1 pt. per 50 gallons (0.25% v/v). Sugar maples cannot be tapped for syrup within one year of CLETHODIM 2E application. For repeat applications make on a minimum of a 14-day interval.

**Restrictions**

- Must not be applied to non-bearing fruit or nut crops which are grown for root stock.
- **DO NOT** apply more than 16 fl oz./A (0.250 lb ai/A) per application.
- **DO NOT** make more than 2 applications per year.
- For repeat applications make on a minimum of a 14-day interval.
- **DO NOT** apply more than 32 fl oz./A (0.50 lb ai/A) per year.

**Pea, Dry Shelled** (subgroup 6C) including: **Pea (*Pisum spp.*)**, Field, Pigeon

Minimum Time from Application to Harvest (PHI)	Use Rates Per Acre	Adjuvant Rates Per Acre	Specific Use Instructions
30 days	6 – 8 fl. oz. (0.094 - 0.125 lbs ai / A)	Non-ionic Surfactant (NIS) at 0.25% v/v or 1 qt. Crop Oil Concentrate by ground or 1% v/v (but not less than 1 pt/A) by air	Refer to appropriate Table for reduced rate directions (NOT FOR USE IN CALIFORNIA) for the control of small annual grasses. Apply before bloom but not later than 30 days prior to harvest. The addition of AMS has shown improved grass control for difficult to control species including: quackgrass, rhizome Johnsongrass, red rice, wild oats, volunteer cereals and volunteer corn.

**Restrictions**

- **DO NOT** use on vegetable crops being grown for seed production unless specific use directions are provided in this table.
- **DO NOT** apply more than 8 fl. oz./A (0.125 lbs ai/A) in a single application.
- **DO NOT** make more than 1 application per year.
- **DO NOT** apply more than 8 fl. oz./A (0.125 lbs ai/A) per year.
- For Reduced Rate Control for Small Annual Grasses: **DO NOT** make more than 2 applications at 4 fl. oz./A (0.0625 lb ai/A) per year.

**Peas, Succulent Shelled** (subgroup 6B) including: **Pea (*Pisum spp.*)** English, garden, green, pigeon

Minimum Time from Application to Harvest (PHI)	Use Rates Per Acre	Adjuvant Rates Per Acre	Specific Use Instructions
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21 days	6 – 8 fl. oz. (0.094 - 0.125 lbs ai / A)	Non-ionic Surfactant (NIS) at 0.25% v/v  or  1 qt. by ground or 1% v/v (but not less than 1 pt/A) by air	Refer to appropriate Table for reduced rate directions (NOT FOR USE IN CALIFORNIA) for the control of small annual grasses.  Apply before bloom but not later than 21 days prior to harvest.  The addition of AMS has shown improved grass control for difficult to control species including: quackgrass, rhizome Johnsongrass, red rice, wild oats, volunteer cereals and volunteer corn.
<b>Restrictions</b>			
<ul style="list-style-type: none"> <li>• <b>DO NOT</b> use on vegetable crops being grown for seed production unless specific use directions are provided in this table.</li> <li>• <b>DO NOT</b> apply more than 8 fl. oz./A (0.125 lbs ai/A) in a single application.</li> <li>• <b>DO NOT</b> make more than 1 application per year.</li> <li>• <b>DO NOT</b> apply more than 8 fl. oz./A (0.125 lbs ai/A) per year.</li> <li>• Applications of CLETHODIM 2E to peas during the bloom period could result in severe crop injury, including loss of yield and delayed maturity.</li> <li>• For Reduced Rate Control for Small Annual Grasses: <b>DO NOT</b> make more than 2 applications at 4 fl. oz./A (0.0625 lb ai/A) per year.</li> </ul>			

<b>Peanut</b> (including Perennial) (NOT FOR USE IN CALIFORNIA)			
Minimum Time from Application to Harvest (PHI)	Use Rates Per Acre	Adjuvant Rates Per Acre	Specific Use Instructions
40 days	6-16 fl. oz. (0.094 – 0.250 lbs ai / A)	Non-ionic Surfactant (NIS) at 0.25% v/v  or  Crop Oil Concentrate Methylated Seed Oil at 1 qt./A or 1% v/v	The addition of AMS has shown improved grass control for difficult to control species including: quackgrass, Rhizome johnsongrass, red rice, wild oats, volunteer cereals, and volunteer corn.  For repeat applications make on a minimum of a 14-day interval.
<b>Restrictions</b>			
<ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 16 fl. oz./A (0.125 lb. ai/A) in a single application.</li> <li>• <b>DO NOT</b> make more than 4 applications per year.</li> <li>• For repeat applications make on a minimum of a 14-day interval.</li> <li>• <b>DO NOT</b> apply more than 32 fl. oz./A (0.50 lbs ai/A) per year.</li> </ul>			

<b>Peppermint and Spearmint tops</b>			
Minimum Time from Application to Harvest (PHI)	Use Rates Per Acre	Adjuvant Rates Per Acre	Specific Use Instructions
21 days	6-16 fl. oz. <sup>(4)</sup> (0.094 – 0.250 lbs ai / A)	Non-ionic Surfactant (NIS) at 0.25% v/v  or  Crop Oil Concentrate or Methylated Seed Oil at 1 qt./A or 1% v/v	For weed control in peppermint and spearmint tops, the minimum use rate is 10 fl. oz. / A (0.156 lbs ai / A)  For repeat applications make on a minimum of a 14-day interval.
<b>Restrictions</b>			
<ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 16 fl. oz./A (0.250 lbs ai/A) in a single application.</li> <li>• <b>DO NOT</b> make more than 2 applications per year.</li> <li>• For repeat applications make on a minimum of a 14-day interval.</li> <li>• <b>DO NOT</b> apply more than 32 fl. oz./A (0.50 lb. of ai/A) per year.</li> </ul>			

<b>Pome Fruit</b> (Crop Group 11-10) including: Apple, Azarole, Crabapple, Loquat, Mayhaw, Medlar, Pear, Pear (Asian), Quince, Quince (Chinese, Japanese), Tejocote			
Minimum Time from Application to Harvest (PHI)	Use Rates Per Acre	Adjuvant Rates Per Acre	Specific Use Instructions
14 days	4 – 8 fl. oz. (0.063 - 0.125 lbs ai / A)	Non-ionic Surfactant (NIS) at 0.25% v/v	For repeat applications make on a minimum of a 14-day interval.
<b>Restrictions</b>			
<ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 8 fl. oz./A (0.125 lbs ai/A) per application</li> <li>• <b>DO NOT</b> make more than 4 applications per year.</li> <li>• For repeat applications make on a minimum of a 14-day interval.</li> <li>• <b>DO NOT</b> apply more than 32 fl. oz./A (0.50 lb. ai/A) per year</li> </ul>			

<b>Potato</b>			
<b>Minimum Time from Application to Harvest (PHI)</b>	<b>Use Rates Per Acre</b>	<b>Adjuvant Rates Per Acre</b>	<b>Specific Use Instructions</b>
30 days	6-16 fl. oz. (0.094 – 0.250 lbs ai / A)	Non-ionic Surfactant (NIS) at 0.25% v/v  or  Crop Oil Concentrate Methylated Seed Oil at 1 qt./A or 1% v/v	The addition of AMS has shown improved grass control for difficult to control species including: quackgrass, Rhizome johnsongrass, red rice, wild oats, volunteer cereals, and volunteer corn.  For repeat applications make on a minimum of a 14-day interval.

**RESTRICTIONS:**

- **DO NOT** use on vegetable crops being grown for seed production unless specific use directions are provided in this table.
- **DO NOT** apply more than 16 fl. oz./A (0.250 lb. ai/A) in a single application.
- **DO NOT** make more than 2 applications per year.
- For repeat applications make on a minimum of a 14-day interval.
- **DO NOT** apply more than 32 fl. oz./A (0.50 lbs ai/A) per year.

<b>Radish, Radish leaves</b>			
<b>Minimum Time from Application to Harvest (PHI)</b>	<b>Use Rates Per Acre</b>	<b>Adjuvant Rates Per Acre</b>	<b>Specific Use Instructions</b>
15 days	6 – 8 fl. oz. (0.094 - 0.125 lbs ai / A)	Non-ionic Surfactant (NIS) at 0.25% v/v  or  1% v/v Crop Oil Concentrate in the finished spray volume	For repeat applications make on a minimum of a 14-day interval.

**RESTRICTIONS:**

- **DO NOT** use on vegetable crops being grown for seed production unless specific use directions are provided in this table.
- **DO NOT** apply more than 8 fl. oz./A (0.125 lb. ai/A) in a single application.
- **DO NOT** make more than 2 applications per year.
- For repeat applications make on a minimum of a 14-day interval.
- **DO NOT** apply more than 16 fl. oz./A (0.250 lbs ai / A) per year.

<b>Root Vegetables</b> (except Sugar Beet and Radish, subgroup 1B), including: Burdock (edible), Celeriac, Chervil, Turnip (rooted), Chicory, Ginseng, Horseradish, Parsnip, Radish, Oriental, Rutabaga, Salsify (black, Spanish), Skirret, Turnip			
<b>Minimum Time from Application to Harvest (PHI)</b>	<b>Use Rates Per Acre</b>	<b>Adjuvant Rates Per Acre</b>	<b>Specific Use Instructions</b>
30 days	6 – 8 fl. oz. (0.094 - 0.125 lbs ai / A)	Non-ionic Surfactant (NIS) at 0.25% v/v  or  1% v/v Crop Oil Concentrate in the finished spray volume	For repeat applications make on a minimum of a 14-day interval.

**RESTRICTIONS:**

- **DO NOT** use on vegetable crops being grown for seed production unless specific use directions are provided in this table.
- **DO NOT** apply more than 8 fl. oz./A (0.125 lbs ai/A) in a single application.
- **DO NOT** make more than 4 applications per year.
- For repeat applications make on a minimum of a 14-day interval.
- **DO NOT** apply more than 32 fl. oz./A (0.5 lbs ai/A) per year.

**Safflower**

Minimum Time from Application to Harvest (PHI)	Use Rates Per Acre	Adjuvant Rates Per Acre	Specific Use Instructions
70 days	6 – 8 fl. oz. (0.094 - 0.125 lbs ai / A)	Non-ionic Surfactant (NIS) at 0.25% v/v  or  1% v/v Crop Oil Concentrate in the finished spray volume	For repeat applications make on a minimum of a 14-day interval.

**RESTRICTIONS:**

- **DO NOT** apply more than 8 fl. oz./A (0.125 lbs ai/A) in a single application.
- **DO NOT** make more than 4 applications per year.
- For repeat applications make on a minimum of a 14-day interval.
- **DO NOT** apply more than 32 fl. oz./A (0.5 lbs ai/A) per year.

**Sesame**

Minimum Time from Application to Harvest (PHI)	Use Rates Per Acre	Adjuvant Rates Per Acre	Specific Use Instructions
14 days	6 – 8 fl. oz. (0.094 - 0.125 lbs ai / A)	Non-ionic Surfactant (NIS) at 0.25% v/v or 1% v/v Crop Oil Concentrate in the finished spray volume	For repeat applications make on a minimum of a 14-day interval.

**Restrictions**

- **DO NOT** apply more than 8 fl. oz./A (0.125 lbs ai/A) in a single application.
- **DO NOT** make more than 4 applications per year.
- For repeat applications make on a minimum of a 14-day interval.
- **DO NOT** apply more than 32 fl. oz./A (0.5 lbs ai/A) per year.
- **DO NOT** apply during flowering.

**Soybean**

Minimum Time from Application to Harvest (PHI)	Use Rates Per Acre	Adjuvant Rates Per Acre	Specific Use Instructions
60 days	6-16 fl. oz. (0.094 – 0.250 lbs ai / A)	Non-ionic Surfactant (NIS) at 0.25% v/v  or  Crop Oil Concentrate Methylated Seed Oil at 1 qt./A or 1% v/v	Refer to appropriate Table for reduced rate directions (NOT FOR USE IN CALIFORNIA) for the control of small annual grasses.  The addition of AMS has shown improved grass control for difficult to control species including: quackgrass, Rhizome johnsongrass, red rice, wild oats, volunteer cereals, and volunteer corn.  For repeat applications make on a minimum of a 14-day interval.

**RESTRICTIONS:**

- **DO NOT** apply more than 16 fl. oz./A (0.250 lb. ai/A) in a single application.
- **DO NOT** make more than 2 applications per year.
- For repeat applications make on a minimum of a 14-day interval.
- **DO NOT** apply more than 32 fl. oz./A (0.50 lbs ai/A) per year.
- **DO NOT** graze treated fields or feed treated forage or hay to livestock.

**Stalk and Stem Vegetables** (NOT FOR USE IN CALIFORNIA) (subgroup 22A) including: Agave, Aloe Vera, Asparagus, Bamboo Shoots, Celtuce, Fennel, Florence (fresh leaves and stalk), Fern, Fiddlehead (edible), Kale (Sea), Kohlrab, Palm Hearts, Prickly Pear (pads) Prickly Pear (Texas pads), Cultivars, varieties, and / or hybrids of these commodities

Minimum Time from Application to Harvest (PHI)	Use Rates Per Acre	Adjuvant Rates Per Acre	Specific Use Instructions
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1 days	6 – 8 fl. oz. (0.094 - 0.125 lbs ai / A)	Non-ionic Surfactant (NIS) at 0.25% v/v  or  1% v/v Crop Oil Concentrate in the finished spray volume	For repeat applications make on a minimum of a 14-day interval.
<b>Restrictions</b>			
<ul style="list-style-type: none"> <li>• <b>DO NOT</b> use on vegetable crops being grown for seed production unless specific use directions are provided in this table.</li> <li>• <b>DO NOT</b> apply more than 8 fl. oz./A (0.125 lbs ai/A) per application</li> <li>• <b>DO NOT</b> make more than 2 applications per year.</li> <li>• For repeat applications make on a minimum of a 14-day interval.</li> <li>• <b>DO NOT</b> apply more than 16 fl. oz./A (0.250 lb. ai/A) per year</li> </ul>			

<b>Stevia, dried leaves</b>			
Minimum Time from Application to Harvest (PHI)	Use Rates Per Acre	Adjuvant Rates Per Acre	Specific Use Instructions
14 days	4 - 8 fl. oz. (0.063 - 0.125 lbs ai / A)	Non-ionic Surfactant (NIS) at 0.25% v/v	Clethodim 2E has not been tested on all varieties. It is the responsibility of the user to test Clethodim 2E on a small portion of the crop to be treated before treating the entire field.  Verify crop safety to Clethodim 2E on a small area of the crop, at the desired Clethodim 2E 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, Clethodim 2E may be used on the entire field at the rate tested and with the same NIS used in the crop safety test.  For repeat applications make on a minimum of a 14-day interval.
<b>Restrictions</b>			
<ul style="list-style-type: none"> <li>• <b>DO NOT</b> use on vegetable crops being grown for seed production unless specific use directions are provided in this table.</li> <li>• <b>DO NOT</b> apply more than 8 fl. oz./A (0.125 lbs ai/A) per application</li> <li>• <b>DO NOT</b> make more than 4 applications per year.</li> <li>• For repeat applications make on a minimum of a 14-day interval.</li> <li>• <b>DO NOT</b> apply more than 32 fl. oz./A (0.50 lb. ai/A) per year</li> </ul>			

<b>Stone Fruit</b> (crop group 12-12) including: Apricot, Apricot (Japanese), Capulin, Cherry (black, Nanking, sweet, tart), Jujube (Chinese), Nectarine, Peach, Plum (American, Beach, Canada, Cherry, Chickasaw, Damson, Japanese, Klamath, prune), Plumcot, Sloe			
Minimum Time from Application to Harvest (PHI)	Use Rates Per Acre	Adjuvant Rates Per Acre	Specific Use Instructions
14 days	4 - 8 fl. oz. (0.063 - 0.125 lbs ai / A)	Non-ionic Surfactant (NIS) at 0.25% v/v	For repeat application, make a minimum of a 14-day interval
<b>Restrictions</b>			
<ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 8 fl. oz./A (0.125 lbs ai/A) per application</li> <li>• <b>DO NOT</b> make more than 4 applications per year.</li> <li>• For repeat applications make on a minimum of a 14-day interval.</li> <li>• <b>DO NOT</b> apply more than 32 fl. oz./A (0.50 lb. ai/A) per year</li> </ul>			

<b>Strawberry</b>			
Minimum Time from Application to Harvest (PHI)	Use Rates Per Acre	Adjuvant Rates Per Acre	Specific Use Instructions
4 days	6 – 8 fl. oz. (0.094 - 0.125 lbs ai / A)	Non-ionic Surfactant (NIS) at 0.25% v/v  or  1% v/v Crop Oil Concentrate in the finished spray volume	For repeat application, make a minimum of a 14-day interval
<b>Restrictions</b>			
<ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 8 fl. oz./A (0.125 lbs ai/A) in a single application.</li> <li>• <b>DO NOT</b> make more than 4 applications per year.</li> <li>• For repeat applications make on a minimum of a 14-day interval.</li> <li>• <b>DO NOT</b> apply more than 32 fl. oz./A (0.5 lbs ai/A) per year.</li> </ul>			

<b>Sugar Beet</b>			
<b>Minimum Time from Application to Harvest (PHI)</b>	<b>Use Rates Per Acre</b>	<b>Adjuvant Rates Per Acre</b>	<b>Specific Use Instructions</b>
40 days	6-16 fl. oz. (0.094 – 0.250 lbs ai / A)	Non-ionic Surfactant (NIS) at 0.25% v/v  or  Crop Oil Concentrate or Methylated Seed Oil at 1 qt./A or 1% v/v	Refer to appropriate Table for reduced rate directions (NOT FOR USE IN CALIFORNIA) for the control of small annual grasses.  The addition of AMS has shown improved grass control for difficult to control species including: quackgrass, Rhizome johnsongrass, red rice, wild oats, volunteer cereals, and volunteer corn.  For repeat application, make a minimum of a 14-day interval
<b>Restrictions</b>			
<ul style="list-style-type: none"> <li>• <b>DO NOT</b> use on vegetable crops being grown for seed production unless specific use directions are provided in this table.</li> <li>• <b>DO NOT</b> apply more than 16 fl. oz./A (0.250 lb. ai/A) in a single application.</li> <li>• <b>DO NOT</b> make more than 2 applications per year.</li> <li>• For repeat applications make on a minimum of a 14-day interval.</li> <li>• <b>DO NOT</b> apply more than 32 fl. oz./A (0.50 lbs ai/A) per year.</li> <li>• For Reduced Rate Control for Small Annual Grasses: <b>DO NOT</b> make more than 8 applications at 4 fl. oz./A (0.0625 lb ai/A) per year</li> </ul>			

<b>Sunflower</b> (subgroup 20B) including: Calendula, Castor oil plant, Chinese Tallowtree, Euphorbia, Evening Primrose, Jojoba, Niger Seed, Rose Hip, Stokes Aster, Tallowood, Tea Oil Plant, Vernonia			
<b>Minimum Time from Application to Harvest (PHI)</b>	<b>Use Rates Per Acre</b>	<b>Adjuvant Rates Per Acre</b>	<b>Specific Use Instructions</b>
70 days	6-16 fl. oz. (0.094 – 0.250 lbs ai / A)	Non-ionic Surfactant (NIS) at 0.25% v/v  or  Crop Oil Concentrate or Methylated Seed Oil at 1 qt./A or 1% v/v	The addition of AMS has shown improved grass control for difficult to control species including: quackgrass, Rhizome johnsongrass, red rice, wild oats, volunteer cereals, and volunteer corn.  Verify crop safety to CLETHODIM 2E on a small area of the crop at the desired rate and with the same crop oil concentrate that will be used on the field. If no crop response is evident seven (7) days after treatment, CLETHODIM 2E may be used on the entire field at the rate tested and with the same crop oil used in the safety test.  For repeat applications make on a minimum of a 14-day interval.
<b>Restrictions</b>			
<ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 16 fl. oz./A (0.250 lb. ai/A) in a single application.</li> <li>• <b>DO NOT</b> make more than 2 applications per year.</li> <li>• For repeat applications make on a minimum of a 14-day interval.</li> <li>• <b>DO NOT</b> apply more than 32 fl. oz./A (0.50 lbs ai/A) per year.</li> </ul>			

<b>Tomato</b>			
<b>Minimum Time from Application to Harvest (PHI)</b>	<b>Use Rates Per Acre</b>	<b>Adjuvant Rates Per Acre</b>	<b>Specific Use Instructions</b>
20 days	6-16 fl. oz. (0.094 – 0.250 lbs ai / A)	Non-ionic Surfactant (NIS) at 0.25% v/v  or  1% v/v Crop Oil Concentrate in the finished spray volume	For repeat applications make on a minimum of a 14-day interval.
<b>Restrictions</b>			
<ul style="list-style-type: none"> <li>• <b>DO NOT</b> use on vegetable crops being grown for seed production unless specific use directions are provided in this table.</li> <li>• <b>DO NOT</b> apply more than 16 fl. oz./A (0.250 lb. ai/A) in a single application.</li> <li>• <b>DO NOT</b> make more than 2 applications per year.</li> <li>• For repeat applications make on a minimum of a 14-day interval.</li> <li>• <b>DO NOT</b> apply more than 32 fl. oz./A (0.50 lbs ai/A) per year.</li> </ul>			

<b>Tree Nuts</b> (crop group 14-12) including: 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, Money-pot, Money Puzzle Nut, Okari Nut, Pachira Nut, Peach Palm Nut, Pecan, Pequi, Pili Nut, Pine Nut, Pistachiom, Sapucaia Nut, Tropical Almond, Walnut (black, English). Yellowhorn, Cultivars, varieties, and/or hybrids of these			
<b>Minimum Time from Application to Harvest (PHI)</b>	<b>Use Rates Per Acre</b>	<b>Adjuvant Rates Per Acre</b>	<b>Specific Use Instructions</b>
14 days	6 – 8 fl. oz. (0.094 - 0.125 lbs ai / A)	Non-ionic Surfactant (NIS) at 0.25% v/v  or  1% v/v Crop Oil Concentrate in the finished spray volume	For repeat applications make on a minimum of a 14-day interval.
<b>Restrictions</b>			
<ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 8 fl. oz./A (0.125 lbs ai/A) per application</li> <li>• <b>DO NOT</b> make more than 4 applications per acre per year.</li> <li>• For repeat applications make on a minimum of a 14-day interval.</li> <li>• <b>DO NOT</b> apply more than 32 fl. oz./A (0.50 lb. ai/A) per year</li> <li>• Aerial Application for all tree nut use is prohibited.</li> </ul>			

<b>Tuberous and Corm Vegetables</b> (except Potato, subgroup 1C) including: Sweet Potato, Yam, Artichoke (Chinese, Jerusalem), Cassava (bitter, sweet), Ginger.			
<b>Minimum Time from Application to Harvest (PHI)</b>	<b>Use Rates Per Acre</b>	<b>Adjuvant Rates Per Acre</b>	<b>Specific Use Instructions</b>
30 days	6 - 16 fl. oz. (0.094 – 0.250 lbs ai / A)	Non-ionic Surfactant (NIS) at 0.25% v/v  or  1% v/v Crop Oil Concentrate in the finished spray volume	For repeat applications make on a minimum of a 14-day interval.
<b>Restrictions</b>			
<ul style="list-style-type: none"> <li>• <b>DO NOT</b> use on vegetable crops being grown for seed production unless specific use directions are provided in this table.</li> <li>• <b>DO NOT</b> apply more than 16 fl. oz./A (0.250 lb. ai/A) per application</li> <li>• <b>DO NOT</b> make more than 2 applications per year.</li> <li>• For repeat applications make on a minimum of a 14-day interval.</li> <li>• <b>DO NOT</b> apply more than 32 fl. oz./A (0.50 lb. ai/A) per year.</li> </ul> <p><b>For Annual Grasses:</b></p> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> make more than 4 applications at 8 fl. oz./A (0.125 lb. ai/A) per year.</li> </ul> <p><b>For Perennial Grasses:</b></p> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> make more than 2 applications at 16 fl. oz./A. (0.250 lb. ai/A) per year.</li> </ul>			

<b>Turnip Greens</b>			
<b>Minimum Time from Application to Harvest (PHI)</b>	<b>Use Rates Per Acre</b>	<b>Adjuvant Rates Per Acre</b>	<b>Specific Use Instructions</b>
14 days	6 – 8 fl. oz. (0.094 - 0.125 lbs ai / A)	Non-ionic Surfactant (NIS) at 0.25% v/v  or  1% v/v Crop Oil Concentrate in the finished spray volume	For repeat applications make on a minimum of a 14-day interval.
<b>Restrictions</b>			
<ul style="list-style-type: none"> <li>• <b>DO NOT</b> use on vegetable crops being grown for seed production unless specific use directions are provided in this table.</li> <li>• <b>DO NOT</b> apply more than 8 fl. oz./A (0.125 lbs ai/) per application</li> <li>• <b>DO NOT</b> make more than 4 applications per year.</li> <li>• For repeat applications make on a minimum of a 14-day interval.</li> <li>• <b>DO NOT</b> apply more than 32 fl. oz./A (0.50 lb. ai/A) per year</li> </ul>			

<b>Watercress</b> (NOT FOR USE IN CALIFORNIA)			
<b>Minimum Time from Application to Harvest (PHI)</b>	<b>Use Rates Per Acre</b>	<b>Adjuvant Rates Per Acre</b>	<b>Specific Use Instructions</b>
30 days	6 – 8 fl. oz. (0.094 - 0.125 lbs ai / A)	Non-ionic Surfactant (NIS) at 0.25% v/v	For repeat applications make on a minimum of a 14-day interval.
<b>Restrictions</b>			
<ul style="list-style-type: none"> <li>• <b>DO NOT</b> use on vegetable crops being grown for seed production unless specific use directions are provided in this table.</li> <li>• <b>DO NOT</b> apply more than 8 fl. oz./A (0.125 lbs ai/A) per application</li> <li>• <b>DO NOT</b> make more than 4 applications per year.</li> <li>• For repeat applications make on a minimum of a 14-day interval.</li> <li>• <b>DO NOT</b> apply more than 32 fl. oz./A (0.50 lb. ai/A) per year</li> <li>• <b>DO NOT</b> apply when watercress is under flood conditions.</li> <li>• <b>DO NOT</b> apply CLETHODIM 2E when water is in the field and hold water for at least 24 hours after an application.</li> </ul>			

### NON-BEARING FRUIT AND NUT CROPS

CLETHODIM 2E must not be applied to non-bearing fruit or nut crops that are grown for root stock.

Crop injury to non-bearing fruit and nut crops can occur if CLETHODIM 2E is improperly applied. CLETHODIM 2E 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.

Non-bearing fruit and nut crops are plants that will not bear fruit or nuts for at least one year following CLETHODIM 2E application.

<b>COMMON NAME</b>	<b>SCIENTIFIC NAME</b>
Apples	<i>Malus spp.</i>
Berries	<i>Vaccinium spp.</i>
	<i>Rubus spp.</i>
Cherry, Sweet	<i>Prunus avium</i>
Citrus Fruits	<i>Citrus spp.</i>
Grapes	<i>Vitis spp.</i>
Olives	<i>Olea spp.</i>
Peach	<i>Prunus persica</i>
Pears	<i>Pyrus communis</i>
Prunes	<i>Prunus spp.</i>
Stone Fruits	<i>Prunus spp.</i>
Strawberries	<i>Fragaria spp.</i>
<b>Tree Nuts</b>	
Almond	<i>Prunus dulcis</i>
Filbert	<i>Corylus maxima</i>
Pecan	<i>Carya illinoensis</i>
Pistachio	<i>Pistacia vera</i>
Walnut	<i>Juglans spp.</i>
<b>Specific Use Instructions</b>	
For repeat applications make on a minimum of a 14-day interval.	
<b>Restrictions</b>	
<ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 8 fl. oz./A (0.125 lbs ai/A) in a single application.</li> <li>• <b>DO NOT</b> make more than 4 applications per year.</li> <li>• <b>DO NOT</b> apply more than 32 fl. oz. (0.5 lbs ai/A) per year.</li> </ul>	

### CONIFER TREES

CLETHODIM 2E can be used to control labeled grasses in Christmas tree farms, conifer nurseries, and conifer plantations (but not in forests).

COMMON NAME	SCIENTIFIC NAME
Arborvitae, American	<i>Thuja occidentalis</i>
Cedars	<i>Cedrus spp.</i>
Cypress	<i>Taxodium spp.</i>
Douglas Fir	<i>Pseudotsuga menziesii</i>
Firs	<i>Abies spp.</i>
Hemlock, Canadian/Eastern	<i>Tsuga canadensis</i>
Hemlock, Western	<i>Tsuga heterophylla</i>
Pines	<i>Pinus spp.</i>
Spruces	<i>Picea spp.</i>
Yew	<i>Taxus spp.</i>
Specific Use Instructions	
For repeat applications make on a minimum of a 14-day interval.	
Restrictions	
<ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 16 fl. oz./A (0.250 lbs ai/A) in a single application.</li> <li>• <b>DO NOT</b> make more than 2 applications per year.</li> <li>• <b>DO NOT</b> apply more than 32 fl. oz./A (0.50 lbs ai/A) per year.</li> </ul>	

### NON-CROP OR NON-PLANTED AREAS

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

#### Specific Use Instructions

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

#### Restrictions

- **DO NOT** apply more than 16 fl. oz./A (0.250 lb. ai/A) in a single application.
- **DO NOT** make more than 2 applications per year.
- **DO NOT** apply more than 32 fl. oz./A (0.50 lbs ai/A) per year.
- For repeat applications make on a minimum of a 14-day interval.

### USE DIRECTIONS FOR ANNUAL GRASSES

(EXCEPT FOR IN ESTABLISHED ALFALFA, PEPPERMINT AND SPEARMINT TOPS)

Apply only to actively growing grasses at specified weed heights.

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

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

#### Restrictions

- **DO NOT** exceed the maximum rate per application listed in Crop Specific Use Directions and Restrictions for CLETHODIM 2E.
- **DO NOT** exceed the maximum number of applications per year listed in Crop Specific Use Directions and Restrictions for CLETHODIM 2E.
- **DO NOT** exceed the maximum yearly rate listed in Crop Specific Use Directions and Restrictions for CLETHODIM 2E.

Grass Species	Scientific Name	Weed Height* (inches)	Rate Fl. Oz. / Acre (lbs ai / A)	High Rate <sup>1</sup> Fl. Oz. / Acre (lbs ai / A)
Barnyardgrass	<i>Echinochloa crus-galli</i>	2-8	6 (0.094)	8 (0.125)

Grass Species	Scientific Name	Weed Height* (inches)	Rate Fl. Oz. / Acre (lbs ai / A)	High Rate <sup>1</sup> Fl. Oz. / Acre (lbs ai / A)
Broadleaf Signalgrass	<i>Brachiaria platyphylla</i>	2-6	6 (0.094)	8 (0.125)
Brome				
California	<i>Bromus carinatus</i>	2-6	6 (0.094)	8 (0.125)
Cheatgrass	<i>Bromus secalinus</i>	2-6	6 (0.094)	8 (0.125)
Downy	<i>Bromus tectorum</i>	2-6	6 (0.094)	8 (0.125)
Ripgut	<i>Bromus diandrus</i>	2-6	6 (0.094)	8 (0.125)
Canarygrass	<i>Phalaris canariensis</i>	1-4	6 (0.094)	8 (0.125)
Crabgrass				
Hairy	<i>Digitaria adscendens</i>	2-6**	6 (0.094)	8 (0.125)
Large	<i>Digitaria sanguinalis</i>	2-6**	6 (0.094)	8 (0.125)
Smooth	<i>Digitaria ischaemum</i>	2-6**	6 (0.094)	8 (0.125)
Southern	<i>Digitaria ciliaris</i>	2-6**	6 (0.094)	8 (0.125)
Crowfootgrass	<i>Dactyloctenium aegyptium</i>	2-6**	6 (0.094)	8 (0.125)
Fall Panicum	<i>Panicum dichotomiflorum</i>	2-8	6 (0.094)	8 (0.125)
Field Sandbur	<i>Cenchrus incertus</i>	2-6	6 (0.094)	8 (0.125)
Foxtail				
Giant	<i>Setaria faberi</i>	2-12	6 (0.094)	8 (0.125)
Green	<i>Setaria viridis</i>	2-8	6 (0.094)	8 (0.125)
Yellow	<i>Setaria glauca</i>	2-8	6 (0.094)	8 (0.125)
Goosegrass	<i>Eleusine indica</i>	2-6**	6 (0.094)	8 (0.125)
Itchgrass	<i>Rottboellia exaltata</i>	2-6	6 (0.094)	8 (0.125)
Junglerice	<i>Echinochloa colona</i>	2-6	6 (0.094)	8 (0.125)
Lovegrass (Stinkgrass)	<i>Eragrostis cilianensis</i>	2-6	6 (0.094)	8 (0.125)
Rabbitsfootgrass	<i>Polypogon monspeliensis</i>	1-4	6 (0.094)	8 (0.125)
Red Rice	<i>Oryza sativa</i>	1-3	6 (0.094)	8 (0.125)
Ryegrass				
Hardy	<i>Lolium remotum</i>	2-6	6 (0.094)	8 (0.125)
Italian	<i>Lolium multiflorum</i>	2-6	6 (0.094)	8 (0.125)
Seedling Johnsongrass	<i>Sorghum halepense</i>	4-10	6 (0.094)	8 (0.125)
Shattercane	<i>Sorghum bicolor</i>	6-18	6 (0.094)	8 (0.125)
Southwestern Cupgrass	<i>Eriochloa gracillis</i>	2-6	6 (0.094)	8 (0.125)
Sprangletop				
Amazon	<i>Leptochloa panicoides</i>	2-6	6 (0.094)	8 (0.125)
Bearded	<i>Leptochloa fascicularis</i>	2-6	6 (0.094)	8 (0.125)
Mexican	<i>Leptochloa uninervia</i>	2-6	6 (0.094)	8 (0.125)
Red	<i>Leptochloa filiformis</i>	2-6	6 (0.094)	8 (0.125)
Texas Panicum	<i>Panicum texanum</i>	2-6	6 (0.094)	8 (0.125)
Volunteer Cereals <sup>2</sup>				
Barley	<i>Hordeum vulgare</i>	2-6	6 (0.094)	8 (0.125)
Oats	<i>Avena sativa</i>	2-6	6 (0.094)	8 (0.125)
Rye	<i>Secale cereale</i>	2-6	6 (0.094)	8 (0.125)
Wheat	<i>Triticum aestivum</i>	2-6	6 (0.094)	8 (0.125)
Volunteer Corn <sup>3</sup>	<i>Zea mays</i>	4-12	4 (0.063)	6 (0.094)
Volunteer Corn (S.R.) <sup>4</sup>	<i>Zea mays</i>	4-12	8 (0.125) (suppression only)	
Volunteer Corn <sup>3</sup>	<i>Zea mays</i>	12-24	6 (0.094)	8 (0.125)
Volunteer Grain Sorghum	<i>Sorghum bicolor</i>	8-12	6 (0.094)	8 (0.125)
Wild Oats	<i>Avena fatua</i>	2-6	6 (0.094)	8 (0.125)
Wild Proso Millet	<i>Panicum miliaceum</i>	2-10	6 (0.094)	8 (0.125)
Witchgrass	<i>Panicum capillare</i>	2-8	6 (0.094)	8 (0.125)
Woolly Cupgrass	<i>Eriochloa villosa</i>	2-8	6 (0.094)	8 (0.125)

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

\*\*Length of lateral growth

1. Rates higher than 8 fl. oz./A (0.125 lbs ai/A) may be applied in certain geographic areas, environmental conditions, or cropping situations, where experience has shown that higher rates are needed for satisfactory control of annual grasses. In these situations, rates from 8 to 16 fl. oz./A (0.125 lbs. ai/A to 0.250 lbs. ai/A.) may be applied.
2. When a cereal grain crop (for example: wheat) is interseeded for crop establishment or is planted as wind breaks to aid crop establishment, the minimum CLETHODIM 2E use rate for control is 8 fl. oz./A (0.125 lbs ai/A).
3. Includes glyphosate, glufosinate, and imidazolinone resistant volunteer corn.
4. Sethoxydim resistant volunteer corn.

**USE DIRECTIONS FOR ANNUAL & PERENNIAL GRASS CONTROL IN  
ESTABLISHED ALFALFA, PEPPERMINT AND SPEARMINT TOPS WITH CLETHODIM 2E**

Grass Species	Weed Stage	Rate (fl. oz./acre)	High Rate
Annual & Perennial Grasses Listed in Grass Table	See Table	10 (0.156 lb ai / A)	16

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

**Irrigated Alfalfa, Peppermint and Spearmint Tops:** In established alfalfa, peppermint and spearmint tops, irrigation practices can be very critical to the successful use of CLETHODIM 2E and may be necessary to initiate active growth of the weeds prior to application. Applications 2 to 4 days following irrigation are most effective. More consistent grass control occurs when the irrigation occurs before the application is made but irrigation shortly after application (2 days) can be effective.

**Aerial Application:** Apply CLETHODIM 2E in a minimum of 10 GPA in established alfalfa, peppermint and spearmint tops when applying by air.

**Annual Grass Control:** Apply CLETHODIM 2E at the grass sizes indicated in the Use Directions for Annual Grass Table and rates indicated above. If a grass has been cut, apply CLETHODIM 2E after active growth has resumed and regrowth has reached the minimum height and before it reaches the maximum height indicated. Apply before the alfalfa, peppermint and spearmint tops canopy covers the grasses and interferes with the spray coverage. Some annual grasses are spring and summer germinating plants, while others are fall germinating plants, and the time they are actively growing and most susceptible to CLETHODIM 2E may vary from region to region.

Also some annuals germinate over an extended period of time, and because control of small grasses is desired, applications after each weed flush may be required. Spray spring and summer germinating grasses as early in the year 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 2E 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. 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 when grasses are at or near maximum height and/or under heavy grass pressure.

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

spray volume by air.

**USE DIRECTIONS FOR ANNUAL BLUEGRASS CONTROL WITH CLETHODIM 2E**

Grass Species	Weed Stage	Rate (fl. oz./acre)	High Rate
Annual Bluegrass ( <i>Poa annua</i> )	to 4-Leaf	6* (0.094 lbs ai / A)	16

\*Use a minimum of 8 fl. oz./A (0.125 lbs ai/A) to control annual bluegrass in seedling and established alfalfa, peppermint and spearmint tops.

1. Grass needs to be actively growing at time of application(s). Apply under favorable soil moisture and humidity that exists within a few days after rainfall or within 7 days after irrigation.
2. Apply at weed stage indicated on the label, as reduced control can be expected with more mature annual bluegrass.
3. Use the high rate under heavy grass pressure and/or when annual bluegrass is more mature.
4. Always add a crop oil concentrate at 1 qt./acre by ground to the finished spray volume.

USE DIRECTIONS FOR USE IN GLYPHOSATE RESISTANT FIELD CORN (BURNDOWN) APPLICATIONS RATES		
GRASS SPECIES	WEED SIZE (inches)	Rate when applied alone or with glyphosate
Field Corn	Up to 12	3 fl oz/A (0.023 lbs ai / A)
<p>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 instructions: NIS at 0.25% v/v plus AMS at 2.5 to 4 lbs/A.</p> <p><b>RESTRICTIONS:</b></p> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 3 fl. oz./A (0.023 lbs ai/A) in a single application.</li> <li>• <b>DO NOT</b> make more than 1 application per year.</li> <li>• <b>DO NOT</b> apply more than 3 fl. oz./A (0.023 lbs ai/A) per year.</li> <li>• <b>DO NOT</b> use a COC or MSO with CLETHODIM 2E in this use pattern.</li> </ul>		

**DIRECTIONS FOR REDUCED RATE TO CONTROL SMALL ANNUAL GRASSES IN CANOLA, DRY BEAN & DRY PEA (INCLUDING SOYBEANS), EDIBLE PODDED LEGUME VEGETABLES, FLAX, MUSTARD SEED, SUCCULENT BEAN & PEA AND SUGAR BEET**  
(Reduced Rate directions Not for Use in California)

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

Grass Species	Scientific Name	Weed Height (inches)	Rate (fl. oz./acre) <sup>1</sup>
Barnyardgrass	<i>Echinochloa crus-galli</i>	1-4	4 (0.063 lbs ai / A)
Broadleaf Signalgrass	<i>Brachiaria platyphylla</i>	1-4	5 (0.075 lbs ai / A)
Crabgrass			
Large	<i>Digitaria sanguinalis</i>	1-3*	4 (0.063 lbs ai / A)
Large	<i>Digitaria sanguinalis</i>	1-4*	5 (0.075 lbs ai / A)



Grass Species	Scientific Name	Weed Height (inches)	Rate (fl. oz./acre) <sup>1</sup>
Smooth	<i>Digitaria ischaemum</i>	1-3*	4 (0.063 lbs ai / A)
Smooth	<i>Digitaria ischaemum</i>	1-4*	5 (0.075 lbs ai / A)
Southern	<i>Digitaria ciliaris</i>	1-4*	5 (0.075 lbs ai / A)
Fall Panicum	<i>Panicum dichotomiflorum</i>	1-4	4 (0.063 lbs ai / A)
Foxtail			
Giant	<i>Setaria faberi</i>	1-4	4 (0.063 lbs ai / A)
Green	<i>Setaria viridis</i>	1-4	4 (0.063 lbs ai / A)
Millet	<i>Setaria italica</i>	1-4	5 (0.075 lbs ai / A)
Yellow	<i>Setaria glauca</i>	1-4	4 (0.063 lbs ai / A)
Seedling Johnsongrass	<i>Sorghum halepense</i>	1-6	5 (0.075 lbs ai / A)
Shattercane	<i>Sorghum bicolor</i>	4-10	4 (0.063 lbs ai / A)
Texas Panicum	<i>Panicum texanum</i>	1-4	5 (0.075 lbs ai / A)
Volunteer Cereals			
Barley	<i>Hordeum vulgare</i>	1 to 4	5 (0.075 lbs ai / A)
Oats	<i>Avena sativa</i>	1 to 4	5 (0.075 lbs ai / A)
Wheat	<i>Triticum aestivum</i>	1 to 4	5 (0.075 lbs ai / A)
Volunteer Corn**	<i>Zea mays</i>	4-12	4 (0.063 lbs ai / A)
Wild Oats	<i>Aven fatua</i>	1-4	5 (0.075 lbs ai / A)
Wild Proso Millet	<i>Panicum miliaceum</i>	1-6	4 (0.063 lbs ai / A)

\* Length of lateral growth

\*\* Not sethoxydim resistant corn

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

### USE DIRECTIONS FOR PERENNIAL GRASSES

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

### RESTRICTIONS

- **DO NOT** exceed the maximum application rate listed in Crop Specific Use Directions and Restrictions for CLETHODIM 2E.
- **DO NOT** exceed the maximum number of applications per year listed in Crop Specific Use Directions and Restrictions for CLETHODIM 2E.
- **DO NOT** exceed the maximum yearly rate listed in Crop Specific Use Directions and Restrictions for CLETHODIM 2E.

### INSTRUCTIONS FOR PERENNIAL GRASSES

Grass Species	Scientific Name	Weed Height (inches)	Rate (fl. oz./acre)	High Rate
<b>Bermudagrass</b>	<i>Cynodon dactylon</i>			
First Application		3 (or up to 6" runners)	8 (0.125 lbs ai / A)	16 (0.250 lbs ai / A)
Repeat Application(s) (if regrowth occurs)		3 (or up to 6" runners)	8 (0.125 lbs ai / A)	16 (0.250 lbs ai / A)
<b>Fescue, tall</b>	<i>Festuca arundinacea</i>			
First Application		4-8	8 (0.125 lbs ai / A)	16 (0.250 lbs ai / A)
Repeat Application(s) (if regrowth occurs)		4-8	8 (0.125 lbs ai / A)	16 (0.250 lbs ai / A)
<b>Foxtail Barley</b>	<i>Hordeum jubatum</i>			
First Application		2-6	8 (0.125 lbs ai / A)	16 (0.250 lbs ai / A)
Repeat Application(s) (if regrowth occurs)		2-6	8 (0.125 lbs ai / A)	16 (0.250 lbs ai / A)
<b>Orchardgrass</b>	<i>Dactylis glomerata</i>			
First Application		4-8	8 (0.125 lbs ai / A)	16 (0.250 lbs ai / A)
Repeat Application(s) (if regrowth occurs)		4-8	8 (0.125 lbs ai / A)	16 (0.250 lbs ai / A)
<b>Quackgrass*</b>	<i>Elytrigia repens</i>			
First Application		4-12	8 (0.125 lbs ai / A)	16 (0.250 lbs ai / A)
Repeat Application(s) (if regrowth occurs)		4-12	8 (0.125 lbs ai / A)	16 (0.250 lbs ai / A)
<b>Rhizome Johnsongrass</b>	<i>Sorghum halepense</i>			
First Application		12-24	8 (0.125 lbs ai / A)	16 (0.250 lbs ai / A)
Repeat Application(s) (if regrowth occurs)		6-18	6 (0.094 lbs ai / A)	8 (0.125 lbs ai / A)
<b>Wirestem Muhly</b>	<i>Muhlenbergia frondosa</i>			
First Application		4-8	8 (0.125 lbs ai / A)	16 (0.250 lbs ai / A)
Repeat Application(s) (if regrowth occurs)		4-8	8 (0.125 lbs ai / A)	16 (0.250 lbs ai / A)
<b>Perennial Bluegrass*</b>				
<b>Roughstalk</b>	<i>Poa trivialis</i>			
<b>Kentucky</b>	<i>Poa prantensis</i>			
First Application		2-4	8 (0.125 lbs ai / A)	16 (0.250 lbs ai / A)
Repeat Application(s) (if regrowth occurs)		2-4	8 (0.125 lbs ai / A)	16 (0.250 lbs ai / A)

Grass Species	Scientific Name	Weed Height (inches)	Rate (fl. oz./acre)	High Rate
<b>Bentgrass*</b>	<i>Agrostis spp.</i>			
First Application		2-4	-	16 (0.250 lbs ai / A)
Repeat Application(s) (if regrowth occurs)		2-4	-	16 (0.250 lbs ai / A)
				16 (0.250 lbs ai / A)

\*Control of quackgrass, perennial bluegrass and bentgrass with CLETHODIM 2E may be enhanced by adding AMS at 2.5 to 4.0 lbs./A.

### TANK MIXES

It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture, including all crop rotational and other crop restrictions. Those concerns may include, but are not limited to:

1. Geographic restrictions – not all products are 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 (i.e., protective clothing requirements, reentry time);
5. Soil type or soil characteristics;
6. Maximum application rate or number of applications allowed per year;
7. Rain free period required;
8. Application timing (E.G. PRE-HARVEST INTERVAL)
9. **DO NOT** exceed the total yearly rates.

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

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

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

### MIXING INSTRUCTIONS

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

CLETHODIM 2E Tank Mix: Add ½ the required water to the spray tank and begin agitation. Add the required amount of CLETHODIM 2E and mix thoroughly. Then add the required amount of tank mix partner and continue mixing. Finally, add the required amount of crop oil concentrate and/or nitrogen fertilizer and the

remaining water.

### Information on Antagonism

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

### ALFALFA

CLETHODIM 2E TANK MIXES WITH BROADLEAF HERBICIDES FOR ALFALFA (REFER TO THE USE DIRECTION TABLES IN THIS LABEL FOR SPECIFIC GRASSES AND GROWTH STAGES)

PRODUCT <sup>2</sup>	APPLICATION RATES/ACRE <sup>1</sup>			
	ANNUAL GRASSES	PERENNIAL GRASSES	CROP OIL CONCENTRATE <sup>3</sup> (V/V)	
			GROUND	AIR
CLETHODIM 2E + 2,4-DB <sup>4</sup>	10 to 16 fl. oz. (0.150 – 0.250 lbs ai) + Refer to 2,4-DB label	10 to 16 fl. oz. (0.150 – 0.250 lbs ai.) + Refer to 2,4-DB label	1%	1%
CLETHODIM 2E + Imazethapyr <sup>5</sup>	10 to 16 fl. oz. (0.150 – 0.250 lbs ai) + Refer to imazethapyr label	-	1%	1%
CLETHODIM 2E + Bromoxynil <sup>6,7</sup>	10 to 16 fl. oz. (0.150 – 0.250 lbs ai) + Refer to bromoxynil label	-	0.5%	0.5%

1. If grass regrowth occurs or an additional flush of new grass emerges, make a second application of CLETHODIM 2E alone (without a tank mix herbicide), according to the appropriate size and rate directions.
2. Broadleaf weed control 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.
3. Always use a crop oil concentrate at the listed rate (but not less than 1pt./A) in the finished spray volume.
4. CLETHODIM 2E plus 2,4-DB may increase the severity of crop injury when tank mixed. Alfalfa plants will outgrow this temporary crop injury within a few weeks.
5. 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. **DO NOT** feed, graze, or harvest alfalfa for 30 days following an application of imazethapyr to alfalfa.
6. In the states of Washington, Oregon, Idaho, Montana, Wyoming, Colorado, Utah, Nevada and the western halves of North Dakota, South Dakota, Nebraska, and Kansas: The CLETHODIM 2E plus bromoxynil tank mix must be applied in the fall or spring to seedling alfalfa when the majority of the field has a minimum of 2 trifoliates. Unacceptable crop injury may occur to alfalfa seedlings less than the 2 trifoliolate leaf stage. CLETHODIM 2E plus bromoxynil applications made when temperatures are expected to exceed 80°F and 3 days following application can result in unacceptable crop injury. In the states no listed above, apply in the fall or spring to seedling alfalfa when the majority of the field has a minimum of 4 trifoliolate leaves. When alfalfa stand is uneven and conditions favor leaf burn, unacceptable crop injury may occur to alfalfa in the 2 trifoliolate or smaller stage of growth. CLETHODIM 2E plus bromoxynil applications made when temperatures are expected to exceed 70°F and 3 days following application can result in unacceptable crop injury. Crop leaf burn can occur following CLETHODIM 2E plus bromoxynil application. Warm, humid conditions may enhance leaf burn. New crop growth will not be affected.
7. **DO NOT** apply when alfalfa is under moisture, temperature, insect or disease stress or has been stressed by other pesticide carryover or application.

**CANOLA**  
(NOT FOR USE IN CALIFORNIA)

REDUCED RATE CLETHODIM 2E TANK MIXES WITH BROADLEAF HERBICIDES FOR CANOLA (REFER TO THE USE DIRECTIONS TABLES ABOVE FOR SPECIFIC GRASSES AND GROWTH STAGES.)

PRODUCT	APPLICATION RATES/ACRE			
	ANNUAL GRASSES <sup>1</sup>	PERENNIAL GRASSES	AMMONIUM SULFATE	
			GROUND	AIR
CLETHODIM 2E <sup>2</sup> + Glufosinate <sup>3</sup>	4 to 5 fl. oz.  (0.063 - 0.075 lbs ai) + Refer to glufosinate label	-	3.0 lbs.	3.0 lbs.

1. Annual grasses and sizes controlled with these tank mixtures are those that are identified in the DIRECTIONS FOR REDUCED RATE TO CONTROL SMALL ANNUAL GRASSES table.
2. **DO NOT** apply CLETHODIM 2E tank mix during or after bolting or flowering or crop injury may occur.
3. For use only on Glufosinate resistant canola.

**COTTON**

**CLETHODIM 2E TANK MIXED WITH LACTOFEN AND MSMA  
APPLIED POST DIRECTED TO COTTON**

Product <sup>2</sup>	Application Rates/Acre <sup>1</sup>		Crop Oil Concentrate <sup>3</sup>	Comments
	Annual Grasses	Perennial Grasses	Ground	
CLETHODIM 2E <sup>4</sup> + Lactofen + MSMA	6 – 8 fl. oz.	8 to 16 fl. oz.	1% v/v	Reduce broadcast rate in proportion to the band area actually treated.
	(0.094 - 0.125 lbs ai)	(0.125 – 0.250 lbs ai)		
	See the lactofen label for rates to control broadleaf weeds and height limitations for cotton. Refer to the CLETHODIM 2E label for weed height and species controlled.			
	See the MSMA label for rates to control broadleaf weeds and height limitations for cotton. Refer to the CLETHODIM 2E label for weed height and species controlled.			

1. If grass regrowth occurs or an additional flush of new grass emerges, make a second application of CLETHODIM 2E alone (without a tank mix herbicide), according to the appropriate size and rate directions.
2. Broadleaf weed control may be reduced when grass populations are tall enough or dense enough to intercept the spray pattern and prevent them from receiving complete coverage. Tank mixing is not advised in these situations.
3. Always use a crop oil concentrate at the listed rate (but not less than 1 pt./A) in the finished spray volume.
4. If at the time of application, grass height is so tall that post-directed applications cannot get good coverage over the top of the grassy weeds, then poor control may result and a second (non-post directed) application of CLETHODIM 2E may be necessary.

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

PRODUCT	APPLICATION RATE/ACRE <sup>1</sup>		ADJUVANT		COMMENTS
	ANNUAL GRASSES	PERENNIAL GRASSES	Glyphosate formulation <b>with</b> built in adjuvant	Glyphosate formulation <b>without</b> built in adjuvant	
					See charts for grasses controlled

CLETHODIM 2E + Glyphosate	6 – 8 fl. oz. (0.094 - 0.125 lbs ai)	8 to 16 fl. oz. (0.125 – 0.250 lbs ai)	Non-ionic surfactant @ 0.125 to 0.25% v/v plus ammonium sulfate @ 8.5 to 17 lbs. per 100 gals. of carrier	Crop oil concentrate @ 1 pt./A plus ammonium sulfate @ 8.5 to 17 lbs. per 100 gals. of carrier	Use a minimum of 10 gals. of spray solution per acre.
	See glyphosate label for rates to control broadleaf weeds and height limitations for cotton.				

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

**BEANS (DRY AND SUCCULENT SHELLED)**  
(NOT FOR USE IN CALIFORNIA)

Succulent Shelled Pea and Bean subgroup 6B  
Dried Shelled Pea and Bean except Soybean subgroup 6C

**CLETHODIM 2E TANK MIXES WITH BROADLEAF HERBICIDES FOR DRY BEANS**  
(REFER TO THE USE DIRECTION TABLES ABOVE FOR SPECIFIC GRASSES AND GROWTH STAGES.)

PRODUCT <sup>2</sup>	APPLICATION RATES/ACRE <sup>1</sup>			
	ANNUAL GRASSES	PERENNIAL GRASSES	CROP OIL CONCENTRATE <sup>3</sup> (V/V)	
			GROUND	AIR
CLETHODIM 2E + Bentazon	8 to 10 fl. oz. (0.125 – 0.150 lbs ai) + Refer to bentazon label	10 to 16 fl. oz. (0.150 – 0.250 lbs ai) + Refer to bentazon label	1%	1%

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

**FLAX**  
(NOT FOR USE IN CALIFORNIA)

REDUCED RATE CLETHODIM 2E TANK MIXES WITH BROADLEAF HERBICIDES FOR FLAX (REFER TO THE USE DIRECTION TABLES ABOVE FOR SPECIFIC GRASSES AND GROWTH STAGES)

PRODUCT	APPLICATION RATES/ACRE			
	ANNUAL GRASSES <sup>1</sup>	PERENNIAL GRASSES	CROP OIL CONCENTRATE	
			GROUND	AIR
CLETHODIM 2E + Bromoxynil <sup>2</sup>	4 to 5 fl. oz. (0.063 – 0.075 lbs ai) + Refer to bromoxynil label	-	1 pt.	1 pt.

1. Annual grasses and sizes controlled with these tank mixtures are those that are identified in the **DIRECTIONS FOR REDUCED RATE TO CONTROL SMALL ANNUAL GRASSES** table.
2. **Restriction: DO NOT** apply CLETHODIM 2E tank mix during or after bolting or flowering. Crop injury may occur.

## SOYBEAN

CLETHODIM 2E TANK MIXES <sup>3</sup> TO CONTROL ANNUAL GRASSES WHEN USED AS A BURNDOWN IN NO-TILL SOYBEANS

Product	Product Acre Rate <sup>1</sup>	Grass Height	Crop Oil Concentrate <sup>2</sup> +	28% N or 32% N qts. /A or 2.5 to 4.0 lbs. AMS
CLETHODIM 2E + 2,4-D ester*	3 fl. oz. (0.023 lbs ai)	Foxtail 1 to 3" Fall Panicum 1 to 3"	1 qt./A	1 to 2 qts. /A <i>or</i> 2.5 to 4.0 lbs. AMS
	4 fl. oz. (0.063 lbs ai)	Foxtail 1 to 4" Fall Panicum 1 to 4'	1 qt./A	1 to 2 qts. /A <i>or</i> 2.5 to 4.0 lbs. AMS
	6 – 8 fl. oz. (0.094 - 0.125 lbs ai) + Refer to 2,4-D label	(See Grass Chart for grasses claimed)	1 qt./A	1 to 2 qts. /A <i>or</i> 2.5 to 4.0 lbs. AMS

\*2,4-D ester must not be used where drift sensitive crops may be grown.

1. If regrowth occurs or an additional flush of new grass emerges, make a second application of CLETHODIM 2E according to the appropriate size and rate directions.
2. Always use a crop oil concentrate at the listed rate in the finished spray volume.
3. The following products can be tank mixed with CLETHODIM 2E plus 2,4-D ester: Metolachlor, Pendamethalin, Metribuzin

### CLETHODIM 2E TANK MIXES WITH BROADLEAF HERBICIDES FOR SOYBEANS (REFER TO THE USE DIRECTION TABLES IN THIS LABEL FOR SPECIFIC GRASSES AND GROWTH STAGES)

PRODUCT <sup>2</sup>	APPLICATION RATES/ACRE <sup>1</sup>			
	ANNUAL GRASSES <sup>7</sup>	PERENNIAL GRASSES	CROP OIL CONCENTRATE <sup>3</sup> (V/V)	
			GROUND	AIR
CLETHODIM 2E + Lactofen	6 – 8 fl. oz. (0.094 - 0.125 lbs ai) + Refer to lactofen label	8 to 16 fl. oz. (0.125 – 0.250 lbs ai) + Refer to lactofen label	0.5 to 1%	1%
CLETHODIM 2E + Bentazon	8 to 10 fl. oz. (0.125 – 0.150 lbs ai) + Refer to bentazon label	10 to 16 fl. oz. (0.150 – 0.250 lbs ai) + Refer to bentazon label	1%	1%
CLETHODIM 2E + Glyphosate (For use on glyphosate resistant soybeans only)	6 – 8 fl. oz. (0.094 - 0.125 lbs ai) + Refer to glyphosate label	8 to 16 fl. oz. (0.125 – 0.250 lbs ai) + Refer to glyphosate label	0.5 to 1% <sup>4</sup>	1% <sup>4</sup>

PRODUCT <sup>2</sup>	APPLICATION RATES/ACRE <sup>1</sup>			
	ANNUAL GRASSES <sup>7</sup>	PERENNIAL GRASSES	CROP OIL CONCENTRATE <sup>3</sup> (V/V)	
			GROUND	AIR
CLETHODIM 2E + Acifluorfen	6 – 8 fl. oz. (0.094 - 0.125 lbs ai) + Refer to acifluorfen label	6 to 8 fl. oz. (0.094 - 0.1250 lbs ai) + Refer to acifluorfen label	0.5 to 1%	1%
CLETHODIM 2E + Fomesafen <sup>6</sup>	6 – 8 fl. oz. (0.094 - 0.125 lbs ai) + Refer to fomesafen label	8 to 16 fl. oz. (0.125 – 0.250 lbs ai) + Refer to fomesafen label	1%	1%
CLETHODIM 2E + Chlorimuron ethyl	8 to 10 fl. oz. (0.125 – 0.150 lbs ai) + Refer to chlorimuron ethyl label	10 to 16 fl. oz. (0.125 – 0.150 lbs ai) + Refer to chlorimuron ethyl label	1%	1%
CLETHODIM 2E <sup>5</sup> + Imazethapyr	6 – 8 fl. oz. (0.094 - 0.125 lbs ai) + Refer to imazethapyr label	8 to 16 fl. oz. (0.150 – 0.250 lbs ai) + Refer to imazethapyr label	1%	1%
CLETHODIM 2E <sup>5</sup> + Lactofen + Chlorimuron ethyl	8 to 10 fl. oz. (0.125 – 0.150 lbs ai) + Refer to lactofen label + Refer to chlorimuron ethyl label	--	0.5%	1%
CLETHODIM 2E <sup>5</sup> + Lactofen + Bentazon	8 to 10 fl. oz. (0.125 – 0.150 lbs ai) + Refer to lactofen label + Refer to bentazon label	--	0.5%	1%
CLETHODIM 2E <sup>5</sup> + Lactofen + Imazethapyr	8 to 10 fl. oz. (0.125 – 0.150 lbs ai) + Refer to lactofen label + Refer to imazethapyr label	--	0.5%	1%



PRODUCT <sup>2</sup>	APPLICATION RATES/ACRE <sup>1</sup>			
	ANNUAL GRASSES <sup>7</sup>	PERENNIAL GRASSES	CROP OIL CONCENTRATE <sup>3</sup> (V/V)	
			GROUND	AIR
CLETHODIM 2E + Flumiclorac + Imazethapyr	8 to 10 fl. oz. (0.125 – 0.150 lbs ai)  + Refer to flumiclorac label  + Refer to imazethapyr label	--	1%	1%
CLETHODIM 2E + Flumiclorac + Bentazon	8 to 10 fl. oz. (0.125 – 0.150 lbs ai)  + Refer to flumiclorac label  + Refer to bentazon label	--	1%	1%
CLETHODIM 2E + Flumiclorac + Chlorimuron ethyl	8 to 10 fl. oz. (0.125 – 0.150 lbs ai)  + Refer to flumiclorac label  + Refer to chlorimuron ethyl label	--	1%	1%
CLETHODIM 2E + Lactofen + Flumiclorac	6 – 8 fl. oz. (0.094 - 0.125 lbs ai)  + Refer to lactofen label  + Refer to flumiclorac label	--	0.5%	1%
CLETHODIM 2E <sup>5</sup> + Cloransulam	6 – 8 fl. oz. (0.094 - 0.125 lbs ai)  + Refer to cloransulam label	8 to 16 fl. oz. (0.125 – 0.250 lbs ai)  + Refer to cloransulam label	1%	--
CLETHODIM 2E <sup>5</sup> + Lactofen + Cloransulam	6 – 8 fl. oz. (0.094 - 0.125 lbs ai)  + Refer to lactofen label  + Refer to cloransulam label	8 to 16 fl. oz. (0.125 – 0.250 lbs ai)  + Refer to lactofen label  + Refer to cloransulam label	1%	--
CLETHODIM 2E <sup>5</sup> + Imazamox	6 – 8 fl. oz. (0.094 - 0.125 lbs ai)  + Refer to imazamox label	--	1%	--

PRODUCT <sup>2</sup>	APPLICATION RATES/ACRE <sup>1</sup>			
	ANNUAL GRASSES <sup>7</sup>	PERENNIAL GRASSES	CROP OIL CONCENTRATE <sup>3</sup> (V/V)	
			GROUND	AIR
CLETHODIM 2E <sup>5</sup> + Lactofen + Imazamox	6 – 8 fl. oz. (0.094 - 0.125 lbs ai) + Refer to lactofen label + Refer to imazamox label	--	1%	--
CLETHODIM 2E <sup>5</sup> + Flumiclorac	6 – 8 fl. oz. (0.094 - 0.125 lbs ai) + Refer to flumiclorac label	--	1 qt./A	--
CLETHODIM 2E + Cloransulam + Fomeasfen <sup>6</sup>	6 – 8 fl. oz. (0.094 - 0.125 lbs ai) + Refer to cloransulam label + Refer to fomeasfen label	8 to 16 fl. oz. (0.125 – 0.250 lbs ai) + Refer to cloransulam label + Refer to fomeasfen label	1%	--

1. If grass regrowth occurs or an additional flush of new grass emerges, make a second application of CLETHODIM 2E alone (without a tank mix herbicide), according to the appropriate size and rate directions.
2. Broadleaf weed control may be reduced when grass populations are tall enough or dense enough to intercept the spray pattern and prevent them from receiving complete coverage. Tank mixing is not advised in these situations.
3. Always use a crop oil concentrate at the listed rate (but not less than 1 pt./A) in the finished spray volume.
4. The addition of 2.5 lb. of ammonium sulfate is required when CLETHODIM 2E is tank mixed with Glyphosate. If the Glyphosate formulation has a stand-alone built-in adjuvant, add 0.125% v/v non-ionic surfactant in place of crop oil concentrate. If the glyphosate formulation does not have a built-in adjuvant system, add 0.5 to 1% crop oil concentrate for ground application and 1% v/v for aerial application.
5. The addition of 1 to 2 qts./A of liquid fertilizer (10-34-0, or 32% N) is advised when CLETHODIM 2E is tank mixed with imazethapyr, flumiclorac, bentazon, acifluorfen, cloransulam, thifensulfuron, chlorimuron, imazamox, or lactofen herbicides. An equivalent amount (2.5 to 4.0 lbs./A) of adjuvants are to be added in addition to the crop oil concentrate.
6. Refer to Fomesafen label for geographic and rotational restrictions.
7. Annual grasses and sizes controlled with these tank mixtures are those which are identified in the DIRECTIONS FOR USE IN SOYBEANS AT A REDUCED RATE table.

**REDUCED RATE CLETHODIM 2E TANK MIXES WITH BROADLEAF HERBICIDES FOR SOYBEAN (REFER TO TABLE FOR REDUCED RATE USE IN DRY BEAN, CANOLA, FLAX, MUSTARD SEED, SOYBEAN AND SUGAR BEET USE DIRECTIONS FOR SMALL ANNUAL GRASSES FOR SPECIFIC GRASSES AND GROWTH STATES)**

PRODUCT	APPLICATION RATES/ACRE <sup>1</sup>			
	ANNUAL GRASSES <sup>2</sup>	PERENNIAL GRASSES	CROP OIL CONCENTRATE <sup>3,4</sup> (V/V)	
			GROUND	AIR
CLETHODIM 2E + Cloransulam	4 to 8 fl. oz. (0.063 - 0.125 lbs ai) + Refer to cloransulam label	-	1%	1%
CLETHODIM 2E +	4 to 6 fl. oz. (0.063 - 0.094 lbs ai)	-	1%	1%

Imaethapyr	+			
	Refer to imazethapyr label			

1. If grass regrowth occurs or an additional flush of new grass emerges, make a second application of CLETHODIM 2E alone (without a tank mix herbicide), according to the appropriate size and rate directions.
2. Annual grasses and sizes controlled with these tank mixes are those that are identified in the DIRECTIONS FOR USE DIRECTIONS FOR SMALL ANNUAL GRASSES table.
3. Always use a crop oil concentrate at the listed rate (but not less than 1 pt./A) in the finished spray volume.
4. The addition of 1 to 2 qts./A of liquid fertilizer (10-34-0, 28%N, or 32%N) is required when CLETHODIM 2E is tank mixed at reduce rate. An equivalent amount (2.5 to 4.0 lbs./A) of spray grade ammonium sulfate (AMS) may be added in place of liquid fertilizer. Fertilizer adjuvants are to be added in addition to the crop oil concentrate.

**USE DIRECTIONS FOR GLYPHOSATE RESISTANT VOUNTEER CORN CONTROL IN GLYPHOSATE RESISTANT SOYBEANS WITH CLETHODIM 2E HERBICIDE TANK MIX**

Glyphosate-resistant Volunteer Corn Height (inches)	CLETHODIM 2E Rate fl. oz./A	Glyphosate <sup>1</sup> rate for formulations with built in adjuvant	Adjuvant
<12	4 (0.063 lbs ai)	1.0 to 2.0 lb. ai / A (Refer to glyphosate label)	Non-ionic surfactant @ 0.125 to 0.25% v/v plus ammonium sulfate @ 8.5 to 17 lbs. per 100 gals/ of carrier
12 to 18	5 (0.075 lbs ai)		
18 to 24	6 (0.094 lbs ai)		
Glyphosate-resistant Volunteer Corn Height (inches)	CLETHODIM 2E Rate fl. oz./A	Glyphosate <sup>1</sup> rate for formulations <b>without</b> built in adjuvant	Adjuvant
<12	4 (0.063 lbs ai)	Up to 2.0 lb. ai / A (Refer to glyphosate label)	Crop oil concentrate @ 1 pt./A plus ammonium sulfate @ 8.5 to 17 lbs. per 100 gals. of carrier
12 to 18	5 (0.075 lbs ai)		
18 to 24	6 (0.094 lbs ai)		

- Apply only to actively growing grass and broadleaf weeds at specified height or growth stage listed on each label.
- Apply under favorable soil moisture and humidity which exist a few days after rainfall or within seven days after irrigation.
- Tank mix applications may sometimes result in reduced grass control. If regrowth occurs, or an additional flush of new grass emerges, make a second application of CLETHODIM 2E, as specified in the respective size and rate tables.
- **DO NOT** tank mix CLETHODIM 2E when broadleaf weeds are tall and/or dense enough to prevent proper grass coverage.
- This tank mix may be applied postemergence to Glyphosate resistant soybeans up through the full flowering stage. **DO NOT** apply less than 60 days before harvest.
- Avoid contact with foliage, green stems, or fruit crops, or any desirable plant and trees, other than soybeans with the glyphosate resistant gene as severe injury or destruction will result.
- **DO NOT** allow the CLETHODIM 2E 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.

1. Glyphosate formulation must be labeled for use on Glyphosate resistant soybeans.

**PEANUT (Including PERENNIAL)**  
(NOT FOR USE IN CALIFORNIA)

**CLETHODIM 2E TANK MIXES WITH BROADLEAF HERBICIDES FOR PEANUT**  
(REFER TO THE USE DIRECTION TABLES ABOVE FOR SPECIFIC GRASSES AND GROWTH STAGES.)

PRODUCT <sup>2</sup>	APPLICATION RATES/ACRE <sup>1</sup>			CROP OIL CONCENTRATE <sup>3</sup> (V/V)	
	ANNUAL GRASSES	PERENNIAL GRASSES	CROP OIL CONCENTRATE <sup>3</sup> (V/V)		
			GROUND	AIR	
CLETHODIM 2E + Bentazon	8 to 10 fl. oz. (0.125 – 0.150 lbs ai) + Refer to bentazon label	-	1%	1%	1%
CLETHODIM 2E + Acifluorfen	8 to 10 fl. oz. (0.125 – 0.150 lbs ai) + Refer to acifluorfen label	-	1%	1%	1%

1. If grass regrowth occurs or an additional flush of new grass emerges, make a second application of CLETHODIM 2E alone (without a tank mix herbicide), according to the appropriate size and rate directions.
2. Broadleaf weed control 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.
3. Always use a crop oil concentrate at the listed rate (but not less than 1 pt./A) in the finished spray volume.

**USE DIRECTIONS FOR GRASS SUPPRESSION FOR HARVEST EFFICIENCY IN PEANUT WITH CLETHODIM 2E**

GRASS SPECIES	WEED STAGE	RATE FL. OZ./ ACRE	HIGH RATE
Annual and perennial grasses that exceed height claimed for control on height charts "USE DIRECTIONS FOR ANNUAL GRASSES" & "USE DIRECTIONS FOR PERENNIAL GRASSES"	Up to and including grasses in the seed head stage	16 (0.250 lbs ai)	32 (0.50 lbs ai)
<b>DO NOT</b> apply as part of a tank mix when applying CLETHODIM 2E for grass suppression.			
Add a crop oil concentrate at 1 qt./A by ground to the finished spray volume.			

**SUGAR BEET**

**CLETHODIM 2E TANK MIXED WITH CLOPYRALID APPLIED TO SUGAR BEETS**

(Refer to the Use Direction tables for specific grasses and growth stages)

Product <sup>2</sup>	Application Rate/Acre <sup>1</sup>		Crop Oil Concentrate <sup>3</sup>	
	Annual Grasses	Perennial Grasses	Ground	Air
CLETHODIM 2E + Clopyralid	6 – 8 fl. oz. (0.094 - 0.125 lbs ai)	8 to 16 fl. oz. (0.125 – 0.250 lbs ai)	1% v/v	
See the Clopyralid label for rates. Refer to the CLETHODIM 2E label for weed height and species controlled.				

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

**CLETHODIM 2E TANK MIXED WITH DESMEDIPHAM OR PHENMEDIPHAM  
APPLIED TO SUGAR BEETS**

Product <sup>2</sup>	Weeds Controlled		Weed Height	Application Rate/Acre <sup>1</sup>
	Common Name	Scientific Name		
CLETHODIM 2E <sup>3</sup> + Phenmedipham + Desmedipham or Desmedipham	Barnyardgrass Foxtail Foxtail Millet Wild Oats Wild Proso Millet	<i>Echinochloa crus-galli</i>	1-3"	8 fl. oz.  (0.125 lbs ai)  See the desmedipham and phenmedipham labels for rates to control broadleaf weeds. No additives are specified in the tank mix.
		<i>Setaria spp.</i>	1-3"	
		<i>Setaria italica</i>	1-3"	
		<i>Avena fatua</i>	1-3"	
		<i>Panicum milaceum</i>	1-3"	

- DO NOT** use crop oil concentrate. No additives are specified in the tank mix.
- Broadleaf weed control may be reduced when grass populations are tall enough or dense enough to intercept the spray pattern and prevent them from receiving complete coverage. Tank mixing is not advised in these situations.
- If grass regrowth occurs or an additional flush of new grass emerges, make a second application of CLETHODIM 2E at full label rate with appropriate rate of crop oil concentrate.

**CLETHODIM 2E PLUS DESMEDIPHAM AND PHENMEDIPHAM TANK MIX FOR THREE SEQUENTIAL APPLICATIONS FOR ANNUAL GRASS CONTROL (MICRO-RATE APPLICATION)**

PRODUCT	APPLICATION RATES/ACRE <sup>1</sup>			
	ANNUAL GRASSES	GRASSES CONTROLLED (inches)	METHYLATED SEED OIL <sup>2</sup> (V/V)	
			GROUND	AIR
CLETHODIM 2E + Desmedipham + Phenmedipham	2 to 3 fl. oz. (0.020 - 0.023 lbs ai) + Refer to desmedipham and phenmedipham labels <sup>3</sup>	Green Foxtail (1-2) Yellow Foxtail (1-2) Barnyardgrass (1-2) Wild Oat (1-2) Volunteer Cereals (1-2)	1.5%	1.5%

- 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.
- Always use a methylated seed oil at the listed rate (but not less than 1 pt./A) in the finished spray volume.
- Use 8 fl. oz./A (0.125 lbs ai/A) rate when sugar beets are in the cotyledon to 4 leaf stage. Rate can be increased up to 12 fl. oz./A (0.188 lb. ai/A) when the smallest sugar beet plants in the field are in the 4-leaf stage or larger.

**USE DIRECTIONS FOR USE FOR MICRO-RATE APPLICATIONS TO SUGAR BEETS**

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

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

Apply CLETHODIM 2E in broadcast applications only at a rate of 2 to 3 fl oz/A (0.020 – 0.023 lbs ai/A) in tank mixture with either desmedipham or phenmedipham. Refer to desmedipham or phenmedipham product labels for use rates. If weed control is not adequate due to climatic conditions, spray coverage or other factors, return to conventional application rates of CLETHODIM 2E (6 to 8 fl oz/A) (0.094 - 0.125 lbs ai/A) and add rates of desmedipham or phenmedipham as directed on their label. When using conventional rates of desmedipham or phenmedipham in tank mixtures with CLETHODIM 2E, a spray adjuvant is not advised.

**USE PRECAUTIONS FOR MICRO-RATE APPLICATIONS: (SEE CLETHODIM 2E, DESMEDIPHAM OR PHENMEDIPHAM MASTER LABELS FOR FURTHER USE PRECAUTIONS.)**

Not all weeds will be adequately controlled, even with favorable climatic conditions. Conventional rates of CLETHODIM 2E, desmedipham or phenmedipham and/or hand labor may be required if multiple micro-rate applications **DO NOT** adequately control weeds. Plugging of spray nozzles may be encountered due to the potential for formation of a precipitate in the spray solution that is often associated with micro-rate applications. To the extent consistent with applicable law, Albaugh will not be responsible for any nozzle plugging that may occur with the use of multiple micro-rate applications.

**GROUND APPLICATION**

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

**AERIAL APPLICATION**

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

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

PRODUCT <sup>2</sup>	APPLICATION RATES/ACRE <sup>1</sup>		
	ANNUAL GRASSES	PERENNIAL GRASSES	CROP OIL CONCENTRATE <sup>3</sup> (V/V)
CLETHODIM 2E + Tetraconazole	6 – 8 fl. oz.  (0.094 - 0.125 lbs ai) + Refer to tetraconazole label	8 to 16 fl. oz.  (0.125 – 0.250 lbs ai) + Refer to tetraconazole label	1%

1. If grass regrowth occurs, or an additional flush of new grass emerges, make a second application of CLETHODIM 2E alone (without a tank mix fungicide) according to the appropriate size and rate directions.
2. Refer to CLETHODIM 2E and fungicide label for rates and weeds and diseases controlled.
3. Always use a crop oil concentrate at the listed rate (but not less than 1 pt./A) in the finished spray volume.

**TANK MIX APPLICATION OF CLETHODIM 2E AND INSECTICIDES FOR THE CONTROL OF GRASS WEEDS AND INSECTS IN ALFALFA, COTTON, PEPPERMINT and SPEARMINT TOPS, PEANUTS (Including PERENNIAL), SOYBEANS & SUNFLOWER**

PRODUCT <sup>2</sup>	APPLICATION RATES/ACRE <sup>1</sup>			CROPS					
	ANNUAL GRASSES	PERENNIAL GRASSES	CROP OIL CONCENTRATE (V/V) <sup>3</sup>	Alfalfa <sup>4</sup>	Cotton	Peppermint and Spearmint Tops <sup>4,5</sup>	Peanut	Soybean	Sunflower
CLETHODIM 2E + Acephate	6 – 8 fl. oz. (0.094 - 0.125 lbs ai) + Refer to acephate label	8 to 16 fl. oz. (0.125 – 0.250 lbs ai) + Refer to acephate label	1%		x	x	x	x	
CLETHODIM 2E + Fenprothrin	6 – 8 fl. oz. (0.094 - 0.125 lbs ai) + Refer to fenprothrin label	8 to 16 fl. oz. (0.125 – 0.250 lbs ai) + Refer to fenprothrin label	1%		x		x		
CLETHODIM 2E + Esfenvalerate	6 – 8 fl. oz. (0.094 - 0.125 lbs ai) + Refer to esfenvalerate label	8 to 16 fl. oz. (0.125 – 0.250 lbs ai) + Refer to esfenvalerate label	1%						x
CLETHODIM 2E + Lamda Cyhalothrin	6 – 8 fl. oz. (0.094 - 0.125 lbs ai) + Refer to Lamda Cyhalothrin label	8 to 16 fl. oz. (0.125 – 0.250 lbs ai) + Refer to Lamda Cyhalothrin label	1%						x
CLETHODIM 2E + Lamda Cyhalothrin	10 to 16 fl. oz. <sup>6</sup> (0.150 – 0.250 lbs ai) + Refer to Lamda Cyhalothrin label	10 to 16 fl. oz. (0.150 – 0.250 lbs ai) + Refer to Lamda Cyhalothrin label	1%	x					
CLETHODIM 2E + B-cyfluthrin	10 to 16 fl. oz. <sup>6</sup> (0.150 – 0.250 lbs ai) + Refer to B-cyfluthrin label	10 to 16 fl. oz. (0.150 – 0.250 lbs ai) + Refer to B-cyfluthrin label	1%	x					
CLETHODIM 2E + Dimethoate	10 to 16 fl. oz. <sup>6</sup> (0.150 – 0.250 lbs ai) + Refer to dimethoate label	10 to 16 fl. oz. (0.150 – 0.250 lbs ai) + Refer to dimethoate label	1%	x					
CLETHODIM 2E +	10 to 16 fl. oz. <sup>6</sup>	10 to 16 fl. oz.	1 to 2 pt. <sup>7</sup>	x					

PRODUCT <sup>2</sup>	APPLICATION RATES/ACRE <sup>1</sup>			CROPS					
	ANNUAL GRASSES	PERENNIAL GRASSES	CROP OIL CONCENTRATE (V/V) <sup>3</sup>	Alfalfa <sup>4</sup>	Cotton	Peppermint and Spearmint Tops <sup>4,5</sup>	Peanut	Soybean	Sunflower
Chlorpyrifos	(0.150 – 0.250 lbs ai)  + Refer to chlorpyrifos label	(0.150 – 0.250 lbs ai)  + Refer to chlorpyrifos label							
CLETHODIM 2E + Permethrin	10 to 16 fl. oz. <sup>6</sup> (0.150 – 0.250 lbs ai)  + Refer to permethrin label	10 to 16 fl. oz. (0.150 – 0.250 lbs ai)  + Refer to permethrin label	1%	x					

1. If grass regrowth occurs, or an additional flush of new grass emerges, make a second application of CLETHODIM 2E alone (without a tank mix insecticide) according to the appropriate size and rate directions.
2. Refer to CLETHODIM 2E and insecticide label for rates, weeds, and insects controlled.
3. Always use a crop oil concentrate at the listed rate (but not less than 1 pt./A) in the finished spray volume.
4. Certain insecticides may cause temporary phytotoxic symptoms on alfalfa, peppermint and spearmint tops foliage.
5. The CLETHODIM 2E rate must be 6 to 8 fl. oz./A (0.094 - 0.125 lbs ai/A) for annual grass control in baby mint, minimum of 8 fl. oz./A for annual grass control in established peppermint and spearmint tops and 8 to 16 fl. oz./A (0.125 - 0.250 lbs ai/A) for perennial grass control. Crop oil concentrate needs to be added at the rate of 1.0 to 2.0 pts./A.
6. The CLETHODIM 2E rate must be 6 to 8 fl. oz./A (0.094 - 0.125 lbs ai/A) for annual grass control in seedling alfalfa.
7. For the CLETHODIM 2E plus chlorpyrifos tank mix, reduce the adjuvant rate down to 1.0 pt./A when the chlorpyrifos rate is 1.0 pt./A or higher.

### DIRECTIONS FOR USE IN FALLOW LAND

CLETHODIM 2E may be used to control annual and perennial grasses in land that has been left fallow the previous year and other non-producing agricultural areas. Apply CLETHODIM 2E at 6 to 8 fl. oz./A (0.094 - 0.125 lbs ai) for annual grasses and 8 to 16 fl. oz./A (0.125 - 0.250 lbs ai/A) for perennial grasses. When both grass and broadleaf weeds are the target pest, CLETHODIM 2E may be tank mixed with 2,4-D ester, Albaugh DICAMBA SG or BANVEL<sup>®</sup> SGF Herbicide for broad-spectrum control. When both annual and perennial grasses occur in the same field, use a minimum of 8 fl. oz./A (0.125 lbs ai/A) CLETHODIM 2E rate.

### PRECAUTIONS:

- Use a minimum spray volume of 15 gals. /A for ground applications and 5 gals. /A for aerial applications.
- Apply only to actively growing grasses when the first grass reaches the specified weed height as specified by the Use Directions for Annual and Perennial Grasses section of this label.
- Annual grasses which emerge after the CLETHODIM 2E application will not be controlled, and a second application may be necessary.
- The control of perennial grasses may require more than one application in non-tilled areas.

### RESTRICTIONS:

- **DO NOT** plant any crop for 30 days after application unless clethodim is registered for use in that crop.
- **DO NOT** apply to grasses that have tillered, formed seedheads or exceeded specified growth stage.
- **DO NOT** use flood jet nozzles.



- **DO NOT** apply to drought-stressed grasses.
- **DO NOT** mow area for two weeks prior to or after CLETHODIM 2E application.

#### CLETHODIM 2E IN TANK MIXES TO CONTROL ANNUAL AND PERENNIAL GRASSES IN FALLOW LAND

Product	Application Rates/Acre <sup>1</sup>		Crop Oil Concentrate <sup>2</sup>	
	Annual Grasses	Perennial Grasses	Ground	Air
CLETHODIM 2E + 2,4-D ester or Dicamba	6 – 8 fl. oz. (0.094 - 0.125 lbs ai)	8 to 16 fl. oz. (0.125 – 0.250 lbs ai)	1% v/v	
	0.5 lb./A			
	See the dicamba label for rates.			

1. Refer to CLETHODIM 2E label for weed height and species control. Review the dicamba and 2,4-D labels for crop restrictions, use rates and weeds controlled.
2. Always use a crop oil concentrate or methylated seed oil containing at least 15% emulsifier at the listed rate (but not less than 1 pt./A) in the finished spray volume.

#### USE DIRECTIONS FOR GRASS SUPPRESSION NON-CROP AREAS WITH CLETHODIM 2E

GRASS SPECIES	WEED STAGE	RATE FL. OZ./ ACRE	HIGH RATE
Annual and perennial grasses that exceed height claimed for control on height charts above.	Up to and including grasses in the seed head stage	12 (0.175 lbs ai)	16 (0.250 lbs ai)
<b>DO NOT</b> apply as part of a tank mix when applying CLETHODIM 2E for grass suppression.			
Add a crop oil concentrate at 1 qt./A by ground to the finished spray volume.			

#### CLETHODIM 2E FOR THE CONTROL AND/OR SUPPRESSION OF TALL FESCUE IN NATIVE PRAIRIE WARM-SEASON GRASS RESTORATION PROJECTS

Product	Product Rates	Grass Weeds Controlled/Suppressed		Weed Stages
		Common Name	Scientific Name	
CLETHODIM 2E	10 to 12 fl. oz./A  (0.150 – 0.188 lbs ai/A)	Tall Fescue	<i>Festuca arundinacea</i>	4 to 6 inches (40 to 60% green-up)
Adjuvant: CLETHODIM 2E must be applied with crop oil concentrate at 1 qt./A, plus a spray grade ammonium sulfate at 2.5 to 4 lbs./A. Mixing Order: Thoroughly mix spray grade ammonium sulfate in water, add CLETHODIM 2E, then add crop oil concentrate.				

#### SPECIAL APPLICATION INSTRUCTIONS

- Burn or mow fields a minimum of three weeks prior to application to remove excess crop residue. Apply in the spring, at 40 to 60% tall fescue green-up, prior to emergence of warm-season grasses.
- Apply in a minimum of 15 to 20 gallons of water per acre at a spray pressure of 40 to 60 PSI at the nozzle. Apply using flat fan or hollow cone nozzles.
- Apply only to fields that have warm-season grasses established for two years. Applications of CLETHODIM 2E to emerged warm-season grasses may cause injury.

**NOTE:** CLETHODIM 2E 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 weeks after the CLETHODIM 2E application.
- **DO NOT** use flood jet nozzles.
- **DO NOT** apply to warm-season grasses grown for seed.
- **DO NOT** graze treated fields or feed treated forage and or hay to livestock.
- **DO NOT** plant any crop for 30 days after application, unless clethodim is registered for use in that crop.

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

<b>Product</b>	<b>Product Rate</b>	<b>Suppression</b>	<b>Application Timing</b>
CLETHODIM 2E	1 ½ to 2 fl. oz./A (0.013 – 0.020 lbs. ai/A)	Tall Fescue Seed Heads <i>Festuca arundinacea</i>	50 to 90% Tall Fescue green-up
Adjuvant: CLETHODIM 2E must be applied with crop oil concentrate at 1 qt./A, plus a spray grade ammonium sulfate at 2.5 to 4 lbs./A. Mixing Order: Thoroughly mix spray grade ammonium sulfate in water, add CLETHODIM 2E, then add crop oil concentrate.			

**SPECIAL APPLICATION INSTRUCTIONS**

- Apply at 50 to 90% tall fescue green-up.
- Use the higher CLETHODIM 2E rate if less tall fescue green matter is present.
- Apply in a minimum of 15 to 20 gals. of water per acre at a spray pressure of 40 to 60 psi at the nozzle. Apply using flat fan or hollow cone nozzles. **DO NOT** use flood nozzles.
- 2,4-D ester may be added to this tank mix for broadleaf control (see the 2,4-D ester label for weeds controlled).

**RESTRICTIONS**

- **DO NOT** mow area for two weeks after the CLETHODIM 2E application.
- **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 in that crop.

**DIRECTIONS FOR USE IN ORNAMENTALS**

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

**IMPORTANT**

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

The following plants have shown a non-sensitivity for CLETHODIM 2E applications:

**ORNAMENTAL TREES**

<b>Common Name</b>	<b>Scientific Name</b>
Alder, red	<i>Alnus oregona</i>
Ash	<i>Fraxinus spp.</i>
Basswood	<i>Tilia spp.</i>

<b>Common Name</b>	<b>Scientific Name</b>
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 spp.</i>
Mulberry, white	<i>Morus alba</i>
Oaks	<i>Quercus spp.</i>
Olive, wild	<i>Elaeagnus angustifolia</i>
Redbud	<i>Cercis canadensis</i>
Sweet gum, American	<i>Liquidambar styraciflua</i>

### **GARDEN FLOWERS AND PLANTS**

<b>Common Name</b>	<b>Scientific Name</b>
Ageratum	<i>Ageratum spp.</i>
Alyssum*, Sweet	<i>Lobularia maritime</i>
Asparagus fern	<i>Asparagus setaceus</i>
Bleeding heart	<i>Dicentra spectabilis</i>
Cast iron plant	<i>Aspidistra alatior</i>
Chrysanthemum	<i>Chrysanthemum spp.</i>
Cinquefoil	<i>Potentilla spp.</i>
Coleus	<i>Coleus spp.</i>
Coralbells	<i>Heuchera sanguinea</i>
Cranesbill	<i>Geranium spp.</i>
Dahlia	<i>Dahlia spp.</i>
Daisy, Trailing African	<i>Osteospermum fruticosum</i>
Daylily	<i>Hemerocallis spp.</i>
Dusty miller	<i>Senecio cinerarie</i>
Euonymus	<i>Euonymus spp.</i>
Gazania	<i>Gazania spp.</i>
Geranium, house	<i>Pelargonium hortorum</i>
Heather, False	<i>Cuphea hyssopifolia</i>
Hosta	<i>Hosta fortunei</i>
Iris	<i>Iris spp.</i>
Jasmine tobacco	<i>Nicotiana alata</i>
Loosestrife	<i>Lythrum salicaria</i>
Marigold	<i>Tagetes spp.</i>
Partridgeberry	<i>Mitchella rapens</i>
Petunia*	<i>Petunia hybride</i>
Phlox	<i>Phlox spp.</i>
Pinks	<i>Dianthus spp.</i>
Portulaca	<i>Portulaca grandiflora</i>
Salvia	<i>Salvia spp.</i>
Saxifrage	<i>Saxifraga spp.</i>
Sedum	<i>Sedum spp.</i>
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 spp.</i>
Verbena	<i>Verbena spp.</i>
Violet	<i>Viola spp.</i>
Yarrow, common	<i>Achillea millefolium</i>

Common Name	Scientific Name
Zinnia	<i>Zinnia elegans</i>

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

#### GROUND COVERS

Common Name	Scientific Name
Bugleweed, carpet	<i>Ajuga reptans</i>
Ivy, English	<i>Hedera helix</i>
Japanese spurge	<i>Pachysandra terminalis</i>
Lilyturf	<i>Liriope muscari</i>
Moneywort	<i>Lysimachia nummularia</i>
Mondo grass, white	<i>Ophiopogon jaburan</i>
Mondo grass, dwarf	<i>Ophiopogon japonicus</i>
Periwinkle, common	<i>Vinca minor</i>

#### SHRUBS

Common Name	Scientific Name
Abelia	<i>Abelia spp.</i>
Anise, purple	<i>Illicium floridenum</i>
Aucuba	<i>Aucuba spp.</i>
Azalea*	<i>Rhododendron spp.</i>
Bamboo	<i>Bambusa spp.</i>
Barberry, Japanese	<i>Berberis thunbergii</i>
Barberry, Magellan	<i>Berberis buxifolia</i>
Baryberry	<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 spp.</i>
Holly	<i>Ilex spp.</i>
Honeysuckle	<i>Lonicera pileate</i>
Indian hawthorn	<i>Raphiolepis indica</i>
Jasmine	<i>Jasminum spp.</i>
Jasmine, Asiatic	<i>Trachelospermum asiaticum</i>
Jasmine, Star	<i>Trachelospermum jasminoides</i>
Juniper	<i>Juniperus spp.</i>
Lantana	<i>Lantana spp.</i>
Nandina *, Bamboo Heavenly	<i>Nandinia domestica</i>
Oleander, common	<i>Nerium oleander</i>
Oregon grape	<i>Mahonia aquifolium</i>
Photina	<i>Photina spp.</i>
Pittosporum	<i>Pittosporum spp.</i>
Podocarpus	<i>Podocarpus spp.</i>
Privet	<i>Liqustrum spp.</i>
Pyracantha	<i>Pyracantha spp.</i>
Rhododendron	<i>Rhododendron spp.</i>
Rose	<i>Spiraea bumalda</i>
Sweet olive	<i>Osmanthus fragrans</i>

Common Name	Scientific Name
Viburnum	<i>Viburnum tinus</i>
Wisteria	<i>Wisteria spp.</i>
Yellow sage/Shrub Verbena	<i>Lantana camere</i>

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

#### RESTRICTIONS

- **DO NOT** apply more than 16 fl. oz./A (0.25 lb ai/A) per application.
- **DO NOT** make more than 2 applications per acre per year. For repeat applications make on a minimum of a 14-day interval.
- **DO NOT** apply more than 32 fl. oz./A (0.50 lb ai/A) per year.

#### USE DIRECTIONS FOR ANNUAL GRASSES IN ORNAMENTALS

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

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	8 (0.125 lbs ai / A)	16 (0.250 lbs ai / A)
Broadleaf Signalgrass	<i>Brachiaria platyphylla</i>	2-6	8 (0.125 lbs ai / A)	16 (0.250 lbs ai / A)
Brome				
California	<i>Bromus carinatus</i>	2-6	8 (0.125 lbs ai / A)	16 (0.250 lbs ai / A)
Cheatgrass	<i>Bromus secalinus</i>	2-6	8 (0.125 lbs ai / A)	16 (0.250 lbs ai / A)
Downy	<i>Bromus tectorum</i>	2-6	8 (0.125 lbs ai / A)	16 (0.250 lbs ai / A)
Ripgut	<i>Bromus diandrus</i>	2-6	8 (0.125 lbs ai / A)	16 (0.250 lbs ai / A)
Canarygrass	<i>Phalaris canariensis</i>	1-4	8 (0.125 lbs ai / A)	16 (0.250 lbs ai / A)
Crabgrass				
Hairy	<i>Digitaria adscendens</i>	2-6**	8 (0.125 lbs ai / A)	16 (0.250 lbs ai / A)
Large	<i>Digitaria sanguinalis</i>	2-6**	8 (0.125 lbs ai / A)	16 (0.250 lbs ai / A)
Smooth	<i>Digitaria ischaemum</i>	2-6**	8 (0.125 lbs ai / A)	16 (0.250 lbs ai / A)
Southern	<i>Digitaria ciliaris</i>	2-6**	8 (0.125 lbs ai / A)	16 (0.250 lbs ai / A)
Crowfootgrass	<i>Dactyloctenium aegyptium</i>	2-6**	8 (0.125 lbs ai / A)	16 (0.250 lbs ai / A)
Fall Panicum	<i>Panicum dichotomiflorum</i>	2-8	8 (0.125 lbs ai / A)	16 (0.250 lbs ai / A)
Field Sandbur	<i>Cenchrus incertus</i>	2-6	8 (0.125 lbs ai / A)	16 (0.250 lbs ai / A)
Foxtail				
Giant	<i>Setaria faberi</i>	2-12	8 (0.125 lbs ai / A)	16 (0.250 lbs ai / A)
Green	<i>Setaria viridis</i>	2-8	8 (0.125 lbs ai / A)	16 (0.250 lbs ai / A)
Yellow	<i>Setaria glauca</i>	2-8	8 (0.125 lbs ai / A)	16 (0.250 lbs ai / A)
Foxtail Barley	<i>Hordeum jubatum</i>	2-6	8 (0.125 lbs ai / A)	16 (0.250 lbs ai / A)

Grass Species	Scientific Name	Weed* Height (inches)	Rate (fl. oz./acre) <sup>1</sup>	High Rate <sup>2</sup>
Goosegrass	<i>Eleusine indica</i>	2-6**	8 (0.125 lbs ai / A)	16 (0.250 lbs ai / A)
Itchgrass	<i>Rottboellia exaltata</i>	2-6	8 (0.125 lbs ai / A)	16 (0.250 lbs ai / A)
Junglerice	<i>Echinochloa colona</i>	2-6	8 (0.125 lbs ai / A)	16 (0.250 lbs ai / A)
Lovegrass (Stinkgrass)	<i>Eragrostis cilianensis</i>	2-6	8 (0.125 lbs ai / A)	16 (0.250 lbs ai / A)
Rabbitsfootgrass	<i>Polypogon monspeliensis</i>	1-4	8 (0.125 lbs ai / A)	16 (0.250 lbs ai / A)
Red Rice	<i>Oryza sativa</i>	1-3	8 (0.125 lbs ai / A)	16 (0.250 lbs ai / A)
Ryegrass				
Hardy	<i>Lolium remotum</i>	2-6	8 (0.125 lbs ai / A)	16 (0.250 lbs ai / A)
Italian	<i>Lolium multiflorum</i>	2-6	8 (0.125 lbs ai / A)	16 (0.250 lbs ai / A)
Seedling Johnsongrass	<i>Sorghum halepense</i>	4-10	8 (0.125 lbs ai / A)	16 (0.250 lbs ai / A)
Shattercane	<i>Sorghum bicolor</i>	6-18	8 (0.125 lbs ai / A)	16 (0.250 lbs ai / A)
Southwestern Cupgrass	<i>Eriochloa gracillis</i>	2-6	8 (0.125 lbs ai / A)	16 (0.250 lbs ai / A)
Sprangletop				
Amazon	<i>Leptochloa panicoides</i>	2-6	8 (0.125 lbs ai / A)	16 (0.250 lbs ai / A)
Bearded	<i>Leptochloa fascicularis</i>	2-6	8 (0.125 lbs ai / A)	16 (0.250 lbs ai / A)
Mexican	<i>Leptochloa uninervia</i>	2-6	8 (0.125 lbs ai / A)	16 (0.250 lbs ai / A)
Red	<i>Leptochloa filiformis</i>	2-6	8 (0.125 lbs ai / A)	16 (0.250 lbs ai / A)
Texas Panicum	<i>Panicum texanum</i>	2-6	8 (0.125 lbs ai / A)	16 (0.250 lbs ai / A)
Volunteer Cereals				
Barley	<i>Hordeum vulgare</i>	2-6	8 (0.125 lbs ai / A)	16 (0.250 lbs ai / A)
Oats	<i>Avena sativa</i>	2-6	8 (0.125 lbs ai / A)	16 (0.250 lbs ai / A)
Rye	<i>Secale cereale</i>	2-6	8 (0.125 lbs ai / A)	16 (0.250 lbs ai / A)
Wheat	<i>Triticum aestivum</i>	2-6	8 (0.125 lbs ai / A)	16 (0.250 lbs ai / A)
Volunteer Corn	<i>Zea mays</i>	4-12	6 (0.094 lbs ai / A)	8 (0.125 lbs ai / A)
Volunteer Corn	<i>Zea mays</i>	12-24	8 (0.125 lbs ai / A)	16 (0.250 lbs ai / A)
Volunteer Grain Sorghum	<i>Sorghum bicolor</i>	8-12	8 (0.125 lbs ai / A)	16 (0.250 lbs ai / A)
Wild Oats	<i>Aven fatua</i>	2-6	8 (0.125 lbs ai / A)	16 (0.250 lbs ai / A)
Wild Proso Millet	<i>Panicum miliaceum</i>	2-10	8 (0.125 lbs ai / A)	16 (0.250 lbs ai / A)
Witchgrass	<i>Panicum capillare</i>	2-8	8 (0.125 lbs ai / A)	16 (0.250 lbs ai / A)
Woolly Cupgrass	<i>Eriochloa villosa</i>	2-8	8 (0.125 lbs ai / A)	16 (0.250 lbs ai / A)

\*Occurs between 3-leaf stage and tillering.

\*\*Length of lateral growth.

1. 8 fl. oz./A (0.125 lbs ai/A) = approximately 0.2 fl. oz./1000 sq. ft.
2. 16 fl. oz./A (0.250 lbs ai/A) = approximately 0.4 fl. oz./1000 sq. ft.

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

**RESTRICTIONS:**

- **DO NOT** apply more than 16 fl. oz./A (0.250 lb ai/A) per application.
- **DO NOT** make more than 2 applications per acre per year.
- For repeat applications make on a minimum of a 14-day interval.
- **DO NOT** apply more than 32 fl. oz./A (0.500 lb ai/A) per year.

**USE DIRECTIONS FOR ANNUAL BLUEGRASS CONTROL WITH CLETHODIM 2E IN ORNAMENTALS**

GRASS SPECIES	WEED STAGE	RATE (fl. oz./ACRE)	HIGH RATE
Annual Bluegrass ( <i>Poa annua</i> )	To 4-Leaf	6 (0.094 lbs ai / A)	16 (0.250 lbs ai / A)
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. Add a non-ionic surfactant containing at least 80% active ingredient at the rate of 1 pt. per 50 gals. (0.25% v/v).			

**USE DIRECTIONS FOR PERENNIAL GRASSES**

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

Grass Species	Scientific Name	Weed Height (inches)	Rate (fl. oz./acre) <sup>1</sup>	High Rate <sup>2</sup>
Bermudagrass	<i>Cynodon dactylon</i>			
First Application		3 (or up to 6" runners)	8 (0.125 lbs ai / A)	16 (0.250 lbs ai / A)
Repeat Application(s) (if regrowth occurs)		3 (or up to 6" runners)	8 (0.125 lbs ai / A)	16 (0.250 lbs ai / A)
Quackgrass	<i>Elytrigia repens</i>			
First Application		4-8	8 (0.125 lbs ai / A)	16 (0.250 lbs ai / A)
Repeat Application(s) (if regrowth occurs)		4-8	8 (0.125 lbs ai / A)	16 (0.250 lbs ai / A)
Rhizome Johnsongrass	<i>Sorghum halepense</i>			
First Application		12-24	8 (0.125 lbs ai / A)	16 (0.250 lbs ai / A)
Repeat Application(s) (if regrowth occurs)		6-18	6 (0.094 lbs ai / A)	8 (0.125 lbs ai / A)
Wirestem Muhly	<i>Muhlenbergia frondosa</i>			
First Application		4-8	8 (0.125 lbs ai / A)	16 (0.250 lbs ai / A)
Repeat Application(s) (if regrowth occurs)		4-8	8 (0.125 lbs ai / A)	16 (0.250 lbs ai / A)

1. 8 fl. oz./A (0.125 lbs ai / A) = approximately 0.2 fl. oz./1000 sq. ft.
2. 16 fl. oz./A (0.250 lbs ai / A) = approximately 0.4 fl. oz./1000 sq. ft.

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

#### **RESTRICTIONS**

- **DO NOT** apply more than 16 **fl. oz./A** (0.25 lb ai/A) per application.
- **DO NOT** make more than 2 applications per year.
- For repeat applications make on a minimum of a 14-day interval.
- **DO NOT** apply more than 32 **fl. oz./A** (0.50 lb ai/A) per year.



## STORAGE AND DISPOSAL

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

PESTICIDE STORAGE: Store in a cool, dry place in original container.

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

### CONTAINER DISPOSAL:

Non-refillable containers (< 5 gallons): **DO NOT** reuse or refill this container. Offer for recycling, if available. Triple rinse or pressure rinse container (or equivalent) promptly after emptying.

Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full of 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.

(non-refillable >5 gallons): Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times.

Pressure rinse as follows: Empty the remaining contents into application equipment or a mix tank 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 for 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.

Refillable container: (bulk): Refill this container with pesticide only. **DO NOT** reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller.

To clean the container before final disposal, empty the remaining contents from the container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing process two more times.

## **CONDITIONS OF SALE AND WARRANTY**

The DIRECTIONS FOR USE of this product reflect the opinion of experts based on field use and tests. The directions are believed to be reliable and must be followed carefully. However, it is impossible to eliminate all risks inherently associated with use of this product. Crop injury, ineffectiveness, or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or the manner of use or application, all of which are beyond the control of ALBAUGH, LLC, its Supplemental Distributors, or the Seller. To the extent consistent with applicable law, all such risks shall be assumed by the Buyer.

ALBAUGH, LLC, its Supplemental Distributors and the Seller warrant that this product conforms to the chemical description on the label and is reasonably fit for the purposes referred to in the Directions for Use subject to the inherent risks referred to above. NEITHER ALBAUGH, LLC NOR ITS SUPPLEMENTAL DISTRIBUTORS MAKE ANY OTHER EXPRESS OR IMPLIED WARRANTY OF FITNESS FOR ANY PARTICULAR PURPOSE OR OF MERCHANTABILITY OR ANY OTHER EXPRESS OR IMPLIED WARRANTY. THIS WARRANTY DOES NOT EXTEND TO, AND THE BUYER SHALL BE SOLELY RESPONSIBLE FOR, ANY AND ALL LOSS OR DAMAGE WHICH RESULTS FROM THE USE OF THIS PRODUCT IN ANY MANNER WHICH IS INCONSISTENT WITH THE LABEL DIRECTIONS.

TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, ALL SUCH RISKS SHALL BE ASSUMED BY THE BUYER. BUYER'S EXCLUSIVE REMEDY AND THE EXCLUSIVE LIABILITY OF ALBAUGH, LLC, ITS SUPPLEMENTAL DISTRIBUTORS AND THE SELLER FOR ANY AND ALL CLAIMS, LOSSES, DAMAGES, OR INJURIES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, WHETHER OR NOT BASED IN CONTRACT, NEGLIGENCE, STRICT LIABILITY IN TORT OR OTHERWISE, SHALL BE LIMITED, AT THE MANUFACTURER'S OPTION, TO REPLACEMENT OF OR THE REPAYMENT OF THE PURCHASE PRICE FOR THE QUANTITY OF PRODUCT WITH RESPECT TO WHICH DAMAGES ARE CLAIMED. When Buyer suffers losses or damages resulting from the use or handling of this product (including claims based on contract, negligence, strict liability, or other legal theories), Buyer must promptly notify Seller in writing of any claims to be eligible to receive either remedy stated above. IN NO CASE SHALL ALBAUGH, LLC, ITS SUPPLEMENTAL DISTRIBUTORS, OR THE SELLER BE LIABLE FOR CONSEQUENTIAL, SPECIAL OR INDIRECT DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT. ALBAUGH, LLC, its Supplemental Distributors, and the Seller offer this product, and the Buyer accepts it, subject to the foregoing Conditions of Sale and Warranty, which may be varied only by agreement in writing signed by a duly authorized representative of ALBAUGH, LLC.

No employee or agent of ALBAUGH, LLC, its Supplemental Distributor, or the Seller is authorized to vary or exceed the terms of this Warranty in any other manner.

052020

**LABEL HISTORY**  
**(Not included in final printed label)**

<b>File Name</b>	<b>Version Mark</b>	<b>Comment</b>
042750-00072.20200403.DRAFT	040320	Reformatting of Label, Correction of Typographical errors, Addition of Asparagus, Peach, Artichoke Uses
042750-00072.20200520.DRAFT	052020	Additional Corrections per US EPA request