



U.S. ENVIRONMENTAL PROTECTION AGENCY

Office of Pesticide Programs  
Registration Division (7505P)  
1200 Pennsylvania Ave., N.W.  
Washington, D.C. 20460

EPA Reg. Number:

93930-18

Date of Issuance:

9/17/20

NOTICE OF PESTICIDE:

Registration  
 Reregistration  
(under FIFRA, as amended)

Term of Issuance:

Unconditional

Name of Pesticide Product:

Avalaire Clethodim 2EC

Name and Address of Registrant (include ZIP Code):

Avalaire, LLC  
1204 Village Market Place, #173  
Morrisville, NC 27560

**Note:** Changes in labeling differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Registration Division prior to use of the label in commerce. In any correspondence on this product always refer to the above EPA registration number.

On the basis of information furnished by the registrant, the above named pesticide is hereby registered under the Federal Insecticide, Fungicide and Rodenticide Act.

Registration is in no way to be construed as an endorsement or recommendation of this product by the Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.

This product is unconditionally registered in accordance with FIFRA section 3(c)(5) provided that you:

1. Submit and/or cite all data required for registration/reregistration/registration review of your product when the Agency requires all registrants of similar products to submit such data.
2. Make the following label changes before you release the product for shipment:
  - Revise the EPA Registration Number to read, "EPA Reg. No. 93930-18."
3. Submit one copy of the revised final printed label for the record before you release the product for shipment.

Signature of Approving Official:

Jordan Page, (Acting) Product Manager 24  
Fungicide Herbicide Branch, Registration Division (7505P)

Date:

9/17/20

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.

If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6. Your release for shipment of the product constitutes acceptance of these conditions. A stamped copy of the label is enclosed for your records. Please also note that the record for this product currently contains the following CSFs:

- Basic CSF dated 04/23/2020

If you have any questions, please contact BeWanda Alexander by phone at (703)347-0313, or via email at [alexander.bewanda@epa.gov](mailto:alexander.bewanda@epa.gov)

Enclosure



{Note to reviewer: [Text] in brackets denotes optional or explanatory language}  
{Note to reviewer: {Text} in braces denotes where in the final label text will appear}  
{BOOKLET FRONT PANEL LANGUAGE}

CLETHODIM    GROUP    1    HERBICIDE

# Avalaire Clethodim 2 EC [TM]

[Alternate Brand Name: Sedara 2 EC]

**ACTIVE INGREDIENT:** (% by weight)  
Clethodim: (E)-2-[1-[(3-chloro-2-propenyl)oxy]imino]propyl]-5-[2-(ethylthio)propyl]-3-hydroxy-2-cyclohexen-1-one ..... 26.4%  
**OTHER INGREDIENTS:** ..... 73.6%  
**TOTAL:** ..... 100.0%  
Contains petroleum distillate.  
Contains 2.0 lbs. clethodim per gallon.

**KEEP OUT OF REACH OF CHILDREN**  
**WARNING—AVISO**  
Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle.  
(If you do not understand the label, find someone to explain it to you in detail.)

See [below] [inside label booklet] for [additional] [First Aid,] [and] [Precautionary Statements] [and] [Directions for Use].

FIRST AID	
<b>If in eyes:</b>	<ul style="list-style-type: none"><li>• Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li><li>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li><li>• Call a poison control center or doctor for treatment advice.</li></ul>
<b>If on skin or clothing:</b>	<ul style="list-style-type: none"><li>• Take off contaminated clothing.</li><li>• Rinse skin immediately with plenty of water for 15-20 minutes.</li><li>• Call a poison control center or doctor for treatment advice.</li></ul>
<b>If swallowed:</b>	<ul style="list-style-type: none"><li>• Immediately call a poison control center or doctor.</li><li>• Do not induce vomiting unless told to do so by a poison control center or doctor.</li><li>• Do not give any liquid to the person.</li><li>• Do not give anything by mouth to an unconscious person.</li></ul>
<b>If inhaled:</b>	<ul style="list-style-type: none"><li>• Move person to fresh air.</li><li>• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible.</li><li>• Call a poison control center or doctor for 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 SafetyCall at <b>1-844-685-9173</b> for emergency medical treatment information.	
<b>NOTE TO PHYSICIAN:</b> Ingestion of this product or subsequent vomiting can result in aspiration of light hydrocarbon liquid, which can cause pneumonitis. Contains petroleum distillate.	

**For Chemical Emergency:**  
**Spill, Leak, Fire, Exposure, or Accident,**  
**Call CHEMTREC Day or Night**  
Within USA and Canada: **1-800-424-9300** or **+1 703-527-3887** (collect calls accepted)

EPA Reg. No.: 93930-XX

EPA Est. No.:

Net Contents:

Manufactured for:

**Avalaire, LLC**

1204 Village Market Place, #173

Morrisville, NC 27560

## {LANGUAGE INSIDE BOOKLET}

### PRECAUTIONARY STATEMENTS

#### HAZARDS TO HUMANS AND DOMESTIC ANIMALS

##### WARNING

Causes substantial but temporary eye irritation. Avoid contact with skin. Do not get in eyes, on skin, or on clothing. Harmful if swallowed or inhaled. Avoid breathing vapors or spray mist. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove and wash contaminated clothing before reuse.

#### Personal Protective Equipment (PPE)

##### Applicators and other handlers must wear:

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

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

#### USER SAFETY RECOMMENDATIONS

Users should:

- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

#### ENVIRONMENTAL HAZARDS

Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not apply where runoff is likely to occur. Do not apply where weather conditions favor drift from areas treated. Do not contaminate water when disposing of equipment washwater or rinsate.

#### NON-TARGET ORGANISM ADVISORY STATEMENT

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

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

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

**Wild Rice:** Hays County, Texas

#### 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,
- Protective eyewear, and
- Shoes plus socks

#### NON-AGRICULTURAL USE REQUIREMENTS

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

Keep 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 RECOMMENDATIONS

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

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

- Rotate the use of **Avalaire Clethodim 2 EC** or other Group 1 herbicides within a growing season sequence or among growing seasons with different herbicide groups that control the same weeds in a field.
- Use tank mixtures with herbicides from a different group if such use is permitted; where information on resistance in target weed species is available, use the less resistance-prone partner at a rate that will control the target weed(s) equally as well as the more resistance-prone partner. Consult your local extension service or certified crop advisor if you are unsure as to which active ingredient is currently less prone to resistance.
- Adopt an integrated weed-management program for herbicide use that includes scouting and uses historical information related to herbicide use and crop rotation, and that considers tillage (or other mechanical control methods), cultural (e.g., higher crop seeding rates; precision fertilizer application method and timing to favor the crop and not the weeds), biological (weed-competitive crops or varieties) and other management practices.
- Scout before and after herbicide application to monitor weed populations for early signs of resistance development. Indicators of possible herbicide resistance include: (1) failure to control a weed species normally controlled by the herbicide at the dose applied, especially if control is achieved on adjacent weeds; (2) a spreading patch of non-controlled plants of a particular weed species; (3) surviving plants mixed with controlled individuals of the same species. If resistance is suspected,

prevent weed seed production in the affected area by an alternative herbicide from a different group or by a mechanical method such as hoeing or tillage. Prevent movement of resistant weed seeds to other fields by cleaning harvesting and tillage equipment when moving between fields, and planting clean seed.

- If a weed pest population continues to progress after treatment with this product, discontinue use of this product, and switch to another management strategy or herbicide with a different mode of action, if available.
- Contact your local extension specialist or certified crop advisors for additional pesticide resistance-management and/or integrated weed-management recommendations for specific crops and weed biotypes.

For further information or to report suspected resistance, contact an Avalaire, LLC representative.

#### TANK MIXES

**Notice:** Tank mixing or use of this product with any other product which is not specifically and expressly authorized by the labels shall be the exclusive risk of user, applicator, and/or application advisor. Read and follow the entire label of each product to be used in the tank mix with this product.

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.

### PRODUCT INFORMATION

#### RESTRICTIONS

- Application in Long Island, New York, is restricted to no more than 16 fl oz of **Avalaire Clethodim 2 EC (0.25 lb a.i.)** per acre per year.
- **DO NOT** apply if rain is expected within 1 hour of application as control may be unsatisfactory.
- **DO NOT** apply a postemergence broadleaf herbicide within one day following application of **Avalaire Clethodim 2 EC** or reduced grass control may result.
- **DO NOT** apply under conditions of stress. Applying **Avalaire Clethodim 2 EC** 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 **Avalaire Clethodim 2 EC** effectively, and will be less susceptible to herbicide activity.
- **DO NOT** allow this product to come in contact with desirable grass crops including corn, rice, sorghum, small grains, or turf, as these and other grass crops will be injured or killed. Minor leaf spotting may occur on treated plants under certain environmental conditions. New foliage is not affected.
- Aerial applications for all tree fruits and tree nuts uses are prohibited
- **DO NOT apply Avalaire Clethodim 2 EC by chemigation in the states of Idaho, Montana, Oregon and Washington.**

#### ROTATIONAL RESTRICTIONS

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

#### PRECAUTIONS

- Grass crops including corn, rice, sorghum, small grains, or turf, etc. are highly sensitive to **Avalaire Clethodim 2 EC**.
- **Avalaire Clethodim 2 EC** may not be used on vegetable crops being grown for seed production unless specific use directions are provided.
- **Avalaire Clethodim 2 EC** is a selective post-emergence herbicide for control of annual and perennial grasses.
- **Avalaire Clethodim 2 EC** does not control sedges or broadleaf weeds.
- Repeated use of this product (or similar post-emergence grass herbicide with the same mode of action) may lead to the selection of naturally occurring biotypes that are resistant to these products in some grass species.
- Optimal perennial grass control can be obtained if rhizomes or stolons are cut up by preplant tillage practices, (discing, plowing, etc.) to stimulate maximum emergence of grass shoots. Cultural practices, including continuous no-tillage in which the perennial grass rhizomes or stolons are not cut up, result in a very staggered, non-uniform weed emergence. Due to this

non-uniform weed emergence, no fewer than 2 **Avalaire Clethodim 2 EC** applications per year are advised at the appropriate weed-growth stage rate under continuous no-till conditions.

- While all the vegetable crops on this label have been tested and are tolerant to **Avalaire Clethodim 2 EC**, not all specialty varieties of these crops have been tested. It is advised that, before applying **Avalaire Clethodim 2 EC** to specialty varieties of vegetable crops on this label, crop tolerance be investigated first using a small section of the field. It is possible that injury symptoms can occur. Symptoms may appear as leaf speckling or stunting.
- 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.
- Tank mixes of **Avalaire Clethodim 2 EC** and broadleaf herbicides may result in reduced grass control. If grass regrowth occurs, an additional application of **Avalaire Clethodim 2 EC** may be necessary.
- Repeated use of **Avalaire Clethodim 2 EC** (or similar postemergence grass herbicides with the same mode of action) may lead to the selection of naturally occurring biotypes that are resistant to these products in some grass species.
- If poor performance occurs and cannot be attributed to adverse weather or application conditions, a resistant biotype may be present. This is most likely to occur in fields where other control strategies including crop rotation, mechanical removal, and other classes of herbicides are not used from year to year.

## APPLICATION INFORMATION

### Timing of Applications

Apply this product post-emergence to actively growing grasses according to rate table directions. Applications made to grass plants stressed by insufficient moisture or cold temperatures or to grass plants exceeding specified growth stages may result in unsatisfactory control. **DO NOT** apply under these conditions.

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

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

### Control Symptoms

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

## ADJUVANT OR CROP OIL CONCENTRATE DIRECTIONS

**Alfalfa, Cotton, Bean (dry) & Pea (shelled), Edible Podded Legume Vegetables, Peanuts (including perennial), Potato, Soybean, Bean & Pea (succulent shelled), Sugar Beet and Sunflower:** Always use a crop oil concentrate at 1.0 qt./A by ground or 1 % v/v (but not less than 1 pt./A) in the finished spray volume by air. 1 to 2 qts./A of liquid fertilizer (10-34-0, 28%N or 32%N), or an equivalent amount (2.5 to 4.0 lbs./A) of spray grade ammonium sulfate (AMS) may be added to **Avalaire Clethodim 2 EC** 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.

**Asparagus, Berry (low-growing), Canola, Carrot, Clover, Cranberry, Cucurbits, Flax, Fruiting Vegetables (except Okra and Tomato), Garden Beet, Garlic, Head & Stem Brassica Vegetables, Herbs, Hops, Leaf Petioles, Leafy Brassica Greens, Leafy Greens, Peppermint and Spearmint Tops, Mustard Seed, Onion (Dry Bulb), Green Onion, Pome Fruit, Root Vegetables, Safflower, Sesame, Stalk and Stem Vegetable, Stone Fruit, Strawberry, Stevia (dried leaves), Sweet Potato (Yam & other Tuberous and Corm Vegetables except Potato), Tomato, Tree Nuts and Watercress:** Always use a crop oil concentrate\* at 1 % v/v in the finished spray volume unless tank mix instructions indicate otherwise. Addition of liquid fertilizer is not advised for these crops.

**Non-Bearing Fruit and Nut Crops, Ornamental Plants:** Add a non-ionic surfactant containing at least 80% active ingredient at the rate of 1 pt. per 50 gals. (0.25% v/v). Use of crop oil concentrate is not advised since it may injure flowers and foliage.



**Conifer Trees, Fallow Land (and other non-producing agricultural areas), and Non-Crop or Non-Planted Areas:** Always use a crop oil concentrate\* containing at least 15% emulsifier at 1% v/v (but not less than 1 pt./A) in the finished spray volume.

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

#### **Ground Application**

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

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

#### **Air Application**

Use a minimum of 3 gals. of spray solution per acre unless otherwise directed in this label. Increase spray volumes up to 10 gals. as grass or crop foliage becomes dense.

For onions (dry bulb), green onion, or garlic: When applying by air **DO NOT** exceed 8 fl. oz./A (0.125 lb a.i./A) in a single application. In California, air applications to onions, garlic or shallots must be made in a minimum of 20 gals. of spray solution per acre. In states other than California, air application to onions or garlic must be made in a minimum of 10 gals. of spray solution per acre.

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

#### **Spot Treatment**

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

**NOTE:** If **Avalaire Clethodim 2 EC** 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 - ONION (Dry Bulb), GREEN ONION AND GARLIC SPRINKLER IRRIGATION APPLICATION**

- **DO NOT apply Avalaire Clethodim 2 EC by chemigation in the states of Idaho, Montana, Oregon and Washington.**

Apply **Avalaire Clethodim 2 EC** at the high rate specified for annual grasses (16 fl. oz./A) (0.25 lb a.i./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 **Avalaire Clethodim 2 EC** 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 **Avalaire Clethodim 2 EC** into the irrigation water at a constant flow. Constant agitation must be maintained in the chemical supply tank during the entire period of herbicide application. Inject the product with a positive displacement pump into the main line ahead of a right angle turn to ensure adequate mixing. Allow time for all lines to flush the herbicide through all nozzles before turning off irrigation water. To ensure the lines are flushed and free of remaining herbicide, a dye indicator may be injected into the lines to mark the end of the application period.

It is not advised that **Avalaire Clethodim 2 EC** be applied through an irrigation system connected to a public water system. Public water system means a system for the provision to the public of piped water for human consumption, if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days out of the year.

#### **INSTRUCTIONS**

- 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** apply this product through any other type of 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, shall 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.

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

##### **Ground Boom Applications**

- Apply with the nozzle height recommended by the manufacturer, but no more than 3 feet above the ground or crop canopy.
- For all applications, applicators are required to use a medium or coarser spray droplet size (ASABE S572.1).
- **DO NOT** apply when wind speeds exceed 8 miles per hour at the application site.
- **DO NOT** apply during temperature inversions.

## SPRAY DRIFT ADVISORIES

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

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

**Controlling Droplet Size - Ground Boom**

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

**Controlling Droplet Size - Aircraft**

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

Use the lowest boom height that is compatible with the spray nozzles that will provide uniform coverage. 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. When applying aerially to crops, **DO NOT** release spray at a height greater than 10 ft above the crop canopy, unless a greater application height is necessary for pilot safety.
- **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.
- **Boom-less Ground Applications:**

Setting nozzles at the lowest effective height will help to reduce the potential for spray drift.
- **Handheld Technology Applications:**

Take precautions to minimize spray drift.

**CROP SPECIFIC DIRECTIONS AND RESTRICTIONS FOR AVALAIRE CLETHODIM 2 EC**

Crops <sup>1</sup>	Minimum Time from Application to Harvest (PHI)	Use Rate Per Acre	Crop Oil Concentrate Rates Per Acre <sup>2</sup>	Special Use Instructions
<b>Alfalfa</b> including: Sainfoin Holy Clover Birdsfoot trefoil <sup>(3)</sup>	15 days before grazing, feeding or harvesting (cutting) for forage or hay	6-16 fl. oz. <sup>(4)</sup> (0.09375 - 0.25 lb a.i.)	1 qt. by ground or 1.0% v/v (but no less than 1 pt./A) by air <sup>5</sup>	For repeat applications make on a minimum of a 14-day interval.  Refer to tank mix partners for feeding, grazing and harvesting restrictions. <sup>(5,6)</sup>  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> apply more than 16 fl. oz./A (0.25 lb ai) in a single application.</li> <li>• <b>DO NOT</b> make more than 2 applications per acre per year.</li> <li>• <b>DO NOT</b> apply more than 32 fl oz (0.500 lb ai) per acre per year.</li> </ul>
<b>Bean, Dry except Soybean</b> [Dried Shelled Pea and Bean (except soybean)] [Subgroup 6C] including: Bean ( <i>Lupinus</i> spp.) Grain Sweet White White Sweet Bean ( <i>Phaseolus</i> spp.) Field Kidney Lima (dry) Navy Pinto Tepary Bean ( <i>Vigna</i> spp.) Adzuki bean Black-eyed pea Catjang Cowpea Crowder pea Moth bean Mung bean Rice bean Southern pea Urd bean Broad bean (dry) Chickpea (garbanzo) Guar Lablab bean Lentil	30 days	6-16 fl. oz. (0.09375 - 0.25 lb a.i.)	1 qt. by ground or 1.0% v/v (but no less than 1 pt./A) by air. <sup>(5)</sup>	For repeat applications make on a minimum of a 14-day interval.  Refer to appropriate Table for reduced rate directions 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.  <b>RESTRICTIONS:</b> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 16 fl. oz./A (0.25 lb a.i./A) in a single application.)</li> <li>• <b>DO NOT</b> make more than 2 applications per acre per year.</li> <li>• <b>DO NOT</b> apply more than 32 fl oz (0.500 lb ai) per acre 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 (0.0625 lb ai) per acre per year.</li> </ul>

Crops <sup>1</sup>	Minimum Time from Application to Harvest (PHI)	Use Rate Per Acre	Crop Oil Concentrate Rates Per Acre <sup>2</sup>	Special Use Instructions
<b>Bean, Succulent Shelled</b> [Succulent Shelled Pea and Bean Subgroup 6B] including: Bean (Phaseolus spp.) Lima bean (green) Broad bean (succulent) Bean (Vigna spp.) Black-eyed pea Cowpea Southern pea	21 days	6-8 fl. oz. (0.09375 - 0.125 lb a.i.)	1 qt. by ground or 1.0% v/v (but no less than 1 pt./A) by air <sup>5</sup>	Refer to appropriate Table for reduced rate directions 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.  <b>RESTRICTIONS:</b> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 8 fl. oz./A (0.125 lb a.i./A) in a single application.</li> <li>• <b>DO NOT</b> apply more than one 1 application per acre per year.</li> <li>• <b>DO NOT</b> apply more than 8 fl. oz. (0.125 lb a.i.) per acre per year.</li> </ul>
<b>Beet, Garden</b>	30 days	6-8 fl. oz. (0.09375 - 0.125 lb a.i.)	1.0% v/v 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 lb a.i./A) in a single application.</li> <li>• <b>DO NOT</b> make more than 4 applications per acre per year.</li> <li>• <b>DO NOT</b> apply more than 32 fl oz (0.500 lb ai) per acre per year.</li> </ul>
<b>Berry Low Growing (except Cranberry and Strawberry) Subgroup 13-07G</b> including: Bearberry Bilberry Blueberry, lowbush Cloudberry Lingonberry Muntries Partridgeberry	45 days	4-8 fl. oz. (0.0625 – 0.125 lb a.i.)	Non-ionic surfactant (NIS) at 0.25% v/v	For repeat applications make on a minimum of a 14 day interval.  Verify crop safety to <b>Avalaire Clethodim 2 EC</b> on a small area of the crop, at the desired <b>Avalaire Clethodim 2 EC</b> rate and with the same non-ionic surfactant (NIS) that will be used on the field. If no crop response is evident 7 days after treatment, <b>Avalaire Clethodim 2 EC</b> may be used on the entire field at the rate tested and with the same NIS used in the crop safety test.  <b>RESTRICTIONS:</b> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 8 fl. oz./A (0.125 lb a.i./A) in a single application.</li> <li>• <b>DO NOT</b> make more than 4 applications per acre per year.</li> <li>• <b>DO NOT</b> apply more than 32 fl oz (0.500 lb ai) per acre per year.</li> </ul>
<b>Brassica Head and Stem Vegetable [Crop Group 5-16][*]</b> including: Broccoli Brussels sprouts Cabbage	30 days	6-8 fl. oz. (0.09375 - 0.125 lb a.i.)	1.0% v/v 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 lb a.i./A) in a single application.</li> <li>• <b>DO NOT</b> make more than 4</li> </ul>

Crops <sup>1</sup>	Minimum Time from Application to Harvest (PHI)	Use Rate Per Acre	Crop Oil Concentrate Rates Per Acre <sup>2</sup>	Special Use Instructions
Cabbage, Chinese (napa) Cauliflower cultivars, varieties and/or hybrids of these commodities				<p>applications per acre per year.</p> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 32 fl oz (0.500 lb ai) per acre per year.</li> </ul> <p>[*][Not for Use in California]</p>
<p><b>Brassica Leafy Greens [Subgroup 4-16B][*] (except Radish Leaves, Turnip Greens and Watercress)</b> including: Arugula Broccoli, Chinese Broccoli Raab Cabbage, Abyssinian Cabbage, Chinese (bok choy) Cabbage, Seakale Collards Cress, Garden Cress, Upland Hanover Salad Kale Maca (leaves) Mizuna Mustard greens Mustard spinach Rape greens Rocket, Wild Sheperd's Purse cultivars, varieties, and/or hybrids of these commodities</p>	14 days	6-8 fl. oz. (0.09375 - 0.125 lb a.i.)	1.0% v/v in the finished spray volume	<p>For repeat applications make on a minimum of a 14-day interval.</p> <p><b>RESTRICTIONS:</b></p> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 8 fl. oz./A (0.125 lb a.i./A) in a single application.</li> <li>• <b>DO NOT</b> make more than 4 applications per acre per year.</li> <li>• <b>DO NOT</b> apply more than 32 fl oz (0.500 lb ai) per acre per year.</li> </ul> <p>[*][Not for Use in California]</p>
<p><b>Canola [including Rapeseed Subgroup 20A][*] except flax seed, mustard seed and sesame seed]</b></p> <p>Borage Crambe Cuphea Echium Echium Gold of Pleasure (Camelina) Hare's Ear Mustard Lesquerella Lunaria Meadowfoam Milkweed Oil Radish Poppy seed Rapeseed (canola) Sweet Rocket</p>	70 days	4-6 fl. oz. (0.0625 – 0.09375 lb a.i)	1.0% v/v in the finished spray volume	<p>Verify crop safety to <b>Avalaire Clethodim 2 EC</b> on a small area of the crop, at the desired <b>Avalaire Clethodim 2 EC</b> rate and with the same non-ionic surfactant (NIS) that will be used on the field. If no crop response is evident 7 days after treatment, <b>Avalaire Clethodim 2 EC</b> may be used on the entire field at the rate tested and with the same NIS used in the crop safety test.</p> <p><b>RESTRICTIONS:</b></p> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 6 fl. oz./A (0.09375 lb a.i./A) in a single application.</li> <li>• <b>DO NOT</b> make more than 1 application per acre per year.</li> <li>• <b>DO NOT</b> apply more than 6 fl. oz./A (0.09375 lb a.i./A) in a year.</li> <li>• <b>DO NOT</b> apply after crop has begun bolting. Crop injury may occur when this product is applied during the bloom period</li> </ul>

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				[*][Not for Use in California]
Carrot	30 days	6-8 fl. oz. (0.09375 - 0.125 lb a.i.)	1.0% v/v 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 lb a.i./A) in a single application.</li> <li>• <b>DO NOT</b> make more than 4 applications per acre per year.</li> <li>• <b>DO NOT</b> apply more than 32 fl oz (0.500 lb ai) per acre per year.</li> </ul>
Clover (Idaho, Oregon and Washington only)	15 days before grazing, feeding or harvesting (cutting) for forage or hay	6-16 fl. oz. (0.09375 - 0.25 lb a.i.)	1.0% v/v in the finished spray volume	<b>RESTRICTIONS:</b> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 16 fl. oz./A (0.25 lb a.i./A) in a single application.</li> <li>• <b>DO NOT</b> make more than 1 application per acre per year.</li> <li>• <b>DO NOT</b> apply more than 16 fl oz (0.25 lb ai) per acre per year.</li> </ul>
Cotton (including cotton grown for seed)	60 days	6-16 fl. oz. (0.09375 - 0.25 lb a.i.)	1 qt. by ground or 1.0% v/v (but no less than 1 pt./A) by air <sup>5</sup>	The addition of Ammonium Sulfate (AMS) has shown improved grass control for difficult to control species including: quackgrass, rhizome Johnsongrass, red rice, wild oats, volunteer cereals and volunteer corn.  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 (0.25 lb a.i./A) in a single application.</li> <li>• <b>DO NOT</b> make more than 2 applications at per acre per year.</li> <li>• <b>DO NOT</b> apply more than 32 fl oz (0.500 lb ai) per acre per year.</li> <li>• <b>DO NOT</b> graze treated field or feed treated forage or hay to livestock.</li> </ul>

Crops <sup>1</sup>	Minimum Time from Application to Harvest (PHI)	Use Rate Per Acre	Crop Oil Concentrate Rates Per Acre <sup>2</sup>	Special Use Instructions
Cranberry	30 days	6-8 fl. oz. (0.09375 - 0.125 lb a.i.)	1.0% v/v in the finished spray volume	<p>For repeat applications make on a minimum of a 14-day interval.</p> <p><b>RESTRICTIONS:</b></p> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 8 fl. oz./A (0.125 lb a.i./A) in a single application.</li> <li>• <b>DO NOT</b> make more than 4 applications per acre per year.</li> <li>• <b>DO NOT</b> apply more than 32 fl oz (0.500 lb ai) per acre per year.</li> <li>• <b>DO NOT</b> apply between the "hook" stage and full fruit set.</li> </ul>
<p>Fallow Land Conifer Trees (and other non-producing agricultural areas)</p> <p>Non-Crop or Non-Planted Areas</p>	N/A	6-16 fl. oz. (0.09375 - 0.25 lb a.i.)	1.0% v/v (but not less than 1 pt./A) in the finished spray volume using a crop oil concentrate containing at least 15% emulsifier.	<p>For repeat applications make on a minimum of a 14-day interval.</p> <p><b>RESTRICTIONS:</b></p> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 16 fl. oz./A (0.25 lb a.i./A) in a single application.</li> <li>• <b>DO NOT</b> make more than 2 applications at per acre per year.</li> <li>• <b>DO NOT</b> apply more than 32 fl oz (0.500 lb ai) per acre 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>
Flax[*]	60 days	6-8 fl. oz. (0.09375 - 0.125 lb a.i.)	1.0% v/v in the finished spray volume	<p>Apply prior to bloom. Crop injury may result when this product is applied during the bloom period.</p> <p>For repeat applications make on a minimum of a 14-day interval.</p> <p><b>RESTRICTIONS:</b></p> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 8 fl. oz./A (0.125 lb a.i./A) in a single application.</li> <li>• <b>DO NOT</b> make more than 2 applications per acre per year.</li> <li>• <b>DO NOT</b> apply more than 16 fl. oz. (0.25 lb a.i.) per acre 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. (0.0625 lb ai) per acre per year.</li> </ul> <p>[*][Not for Use in California]</p>
<p>Fruiting Vegetables (except Okra and Tomato) [Crop Group 8-10] including: African Eggplant Bush Tomato Bell Pepper Cocona</p>	20 days	6-8 fl. oz. (0.09375 - 0.125 lb a.i.)	1.0% v/v in the finished spray volume	<p>For repeat applications make on a minimum of a 14-day interval.</p> <p><b>RESTRICTIONS:</b></p> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 8 fl. oz./A (0.125 lb a.i./A) in a single application.</li> </ul>



Crops <sup>1</sup>	Minimum Time from Application to Harvest (PHI)	Use Rate Per Acre	Crop Oil Concentrate Rates Per Acre <sup>2</sup>	Special Use Instructions
Currant Tomato Eggplant Garden Huckleberry Goji Berry Groundcherry Martynia Naranjilla Pea Eggplant Pepino Nonbell Pepper Roselle Scarlet Eggplant Sunberry Peppers (all) Tomatillo Tree Tomato Cultivars, varieties, and/or hybrids of these.				<ul style="list-style-type: none"> <li>• <b>DO NOT</b> make more than 4 applications per acre per year.</li> <li>• <b>DO NOT</b> apply more than 32 fl oz (0.500 lb ai) per acre per year.</li> </ul>
<b>[Subgroup 19A]</b> <b>Herbs</b> including: Angelica Balm Basil Borage Burnet Chamomile Catnip Chervil (dried) Chive Chinese chive Clary Coriander (leaf) Costmary Culantro (leaf) Curry (leaf) Dillweed Horehound Hyssop Lemongrass Lovage (leaf) Marigold Marjoram Nasturtium Parsley (dried) Pennyroyal Rosemary Rue Sage Savory, Summer and Winter Sweet Bay Tansy Tarragon Thyme Wintergreen Woodruff Wormwood	14 days	6-8 fl. oz. (0.09375 - 0.125 lb a.i.)	1.0% v/v in the finished spray volume	<p>This product has not been tested on all herbs and herb varieties. It is the responsibility of the user to test this product on a small portion of the crop to be treated before treating the entire field.</p> <p>Crop resistance to this product must be verified on a small are of the herb crop at the desired rate and with the same crop oil concentrate that will be used on the herb field. If no crop response is evident seven 7 days after treatment, this product may be used on the entire field at the same rate tested and with the same crop oil used in the resistance test.</p> <p>For repeat applications make on a minimum of a 14-day interval.</p> <p><b>RESTRICTIONS:</b></p> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 8 fl. oz./A (0.125 lb a.i./A) in a single application.</li> <li>• <b>DO NOT</b> make more than 4 applications per acre per year.</li> <li>• <b>DO NOT</b> apply more than 32 fl oz (0.500 lb ai) per acre per year.</li> </ul>

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<b>Hops</b>	21 days	6-8 fl. oz. (0.09375 - 0.125 lb a.i.)	1.0% v/v 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 lb a.i./A) in a single application.</li> <li>• <b>DO NOT</b> make more than 4 applications per acre per year.</li> <li>• <b>DO NOT</b> apply more than 32 fl oz (0.500 lb ai) per acre per year.</li> </ul>
<b>[Subgroup 22B] Leaf Petiole Vegetables[*]</b> including: Cardoon Celery Chinese celery Fuki Rhubarb Udo Zuiki	30 days	6-8 fl. oz. (0.09375 - 0.125 lb a.i.)	1.0% v/v 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 lb a.i./A) in a single application.</li> <li>• <b>DO NOT</b> make more than 4 applications per acre per year.</li> <li>• <b>DO NOT</b> apply more than 32 fl oz (0.500 lb ai) per acre per year.</li> </ul> [*][Not for Use in California]
<b>[Subgroup 4-16A] Leafy Greens[*]</b> including: Amaranth, Chinese Amaranth, Leafy Aster, Indian Blackjack Cat's Whiskers Cham-chwi Cham-na-mul Chervil (fresh leaves) Chipilin Chrysanthemum, Garland Cilantro (fresh leaves) Corn salad Cosmos Dandelion (leaves) Dang-gwi (leaves) Dillweed Dock Dol-nam-mul Ebolo Endive Escarole Fameflower Feather Cockscomb Good King Henry Huazontle Jute (leaves) Lettuce, Bitter Lettuce, Head Lettuce, Leaf	14 days	6-8 fl. oz. (0.09375 - 0.125 lb a.i.)	1.0% v/v 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 lb a.i./A) in a single application.</li> <li>• <b>DO NOT</b> make more than 4 applications per acre per year.</li> <li>• <b>DO NOT</b> apply more than 32 fl oz (0.500 lb ai) per acre per year.</li> </ul> [*][Not for Use in California]

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Orach Parsley (fresh leaves) Plantain, Buckhorn Primrose, English Purslane, Garden Purslane, Winter Radicchio Spinach Spinach, Malabar Spinach, New Zealand Spinach (Tanier) Swiss Chard Violet, Chinese (leaves) Cultivars, varieties, and/or hybrids of these commodities.				
<b>[Subgroup 6A]</b> <b>Legume Vegetables, Edible Podded</b> including: Bean (Phaseolus spp.) runner snap wax Bean (Vigna spp.) asparagus Chinese longbean moth yardlong jackbean Pea (Pisum spp.) dwarf edible-podded snow sugar snap pigeon Soybean (immature seed) Sword bean	21 days	6-8 fl. oz. (0.09375 - 0.125 lb a.i.)	1 qt. by ground or 1.0% v/v (but no less than 1 pt./A) by air <sup>5</sup>	For peas, apply before bloom, but no later than 21 days before harvest.  <b>RESTRICTIONS:</b> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 8 fl. oz./A (0.125 lb a.i./A) in a single application.</li> <li>• <b>DO NOT</b> make more than 1 application per acre per year.</li> <li>• <b>DO NOT</b> apply more than 8 fl oz (0.125 lb ai) per acre per year.</li> </ul>
<b>Melon</b> <b>[Subgroup 9A]</b> Citron melon Muskmelon (including cantaloupe) Watermelon	14 days	6-8 fl. oz. (0.09375 - 0.125 lb a.i.)	1.0% v/v in the finished spray	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 (0.25 lb a.i./A) in a single application.</li> <li>• <b>DO NOT</b> make more than 4 applications at per acre per year.</li> <li>• <b>DO NOT</b> apply more than 32 fl oz (0.500 lb ai) per acre per year.</li> </ul>

Crops <sup>1</sup>	Minimum Time from Application to Harvest (PHI)	Use Rate Per Acre	Crop Oil Concentrate Rates Per Acre <sup>2</sup>	Special Use Instructions
<b>Peppermint and Spearmint Tops</b>	21 days	6-16 fl. oz. <sup>4</sup> (0.09375 - 0.25 lb a.i.)	1 qt. by ground or 1.0% v/v (but no less than 1 pt./A) by air	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 (0.25 lb a.i./A) in a single application.</li> <li>• <b>DO NOT</b> make more than 2 applications at per acre per year.</li> <li>• <b>DO NOT</b> apply more than 32 fl oz (0.500 lb ai) per acre per year.</li> </ul>
<b>Mustard Seed[*]</b>	75 days	4-6 fl. oz. (0.0625 – 0.09375 lb a.i)	1.0% v/v in the finished spray volume	Crop injury may occur when this product 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 6 fl. oz./A (0.09375 lb a.i./A) in a single application.</li> <li>• <b>DO NOT</b> apply more than 12 fl. oz. (0.188 lb a.i.) per acre per year.</li> <li>• <b>DO NOT</b> apply after crop has begun bolting.</li> <li>• <b>DO NOT</b> make more than 2 applications at per acre per year.</li> <li>• For Reduced Rate Control for Small Annual Grasses: <b>DO NOT</b> make more than 3 applications at 4 fl oz (0.0625 lb ai) per acre per year.</li> </ul> [*][Not for Use in California]
<b>Okra[*]</b>	3 days	4-6 fl. oz. (0.0625 – 0.09375 lb a.i)	1.0% v/v 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 (0.125 lb a.i./A) in a single application.</li> <li>• <b>DO NOT</b> make more than 4 applications per acre per year.</li> <li>• <b>DO NOT</b> apply more than 24 fl oz (0.500 lb ai) per acre per year.</li> </ul> [*][Not for Use in California]
<b>[Bulb Onion] [Subgroup 3-07A] Onion (Dry Bulb Only)</b> Including Daylily, Bulb Fritillaria, Bulb Garlic, Bulb Garlic, Great-headed, Bulb Garlic, Serpent, Bulb Lily,	45 days	6-16 fl. oz. (0.09375 – 0.25 lb a.i.)	1.0% v/v in the finished spray volume	Minimum of 20 gals./A spray volume by ground in entire US.  Minimum of 20 gals./A spray volume by air in California.  In states other than California, air applications to onions, garlic or shallots must be made in a minimum of 10 gals./A.

Crops <sup>1</sup>	Minimum Time from Application to Harvest (PHI)	Use Rate Per Acre	Crop Oil Concentrate Rates Per Acre <sup>2</sup>	Special Use Instructions
Bulb Onion, Bulb Onion, Chinese, Bulb Onion, Pearl Onion, Potato, Bulb Shallot, Bulb Cultivars, varieties, and/or hybrids of these.				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 (0.25 lb a.i./A) in a single application.</li> <li>• <b>DO NOT</b> make more than 2 applications at per acre per year.</li> <li>• <b>DO NOT</b> apply more than 32 fl oz (0.500 lb ai) per acre per year.</li> <li>• When applying by air, <b>DO NOT</b> exceed 8 fl oz (0.125 lb ai) per acre per application and 16 fl oz (0.25 lb ai) per acre per year.</li> <li>• If <b>Avalaire Clethodim 2 EC</b> 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 <b>Avalaire Clethodim 2 EC</b> to garlic or onion until the crop has at least two full leaves. Use a 14 day spray interval between the application of <b>Avalaire Clethodim 2 EC</b> and liquid nitrogen or other herbicide applications. Injury to crop may occur when shorter intervals are observed.]</li> </ul> <b>For Garlic:</b> <ul style="list-style-type: none"> <li>• When applying by ground, <b>DO NOT</b> exceed 8 fl oz (0.125 lb ai) per acre per application or 16 fl oz (0.250 lb ai) per acre per year.</li> </ul>
<b>Onion, Green [Subgroup 3-07B][*]</b> including: Chive (fresh leaves) Chive, Chinese (fresh leaves) Elegans Hosta Fritillaria (leaves) Kurrat Lady’s Leek Leek Leek, Wild Onion, Beltsville (bunching) Onion (fresh) Onion, Green Onion, Macrostem Onion, Tree (tops) Onion, Welsh (tops) Shallot (fresh leaves) Cultivars, varieties, and/or hybrids of these commodities.	14 days	6-8 fl. oz. (0.09375 - 0.125 lb a.i.)	1.0% v/v 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 lb a.i./A) in a single application.</li> <li>• <b>DO NOT</b> make more than 4 applications per acre per year.</li> <li>• <b>DO NOT</b> apply more than 32 fl oz (0.500 lb ai) per acre per year.</li> <li>• For air applications to onion, <b>DO NOT</b> exceed 8 fl oz (0.125 lb ai) per acre per application.</li> <li>• In California for air applications to onion, <b>DO NOT</b> exceed 2 applications per year.</li> <li>• If <b>Avalaire Clethodim 2 EC</b> 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</li> </ul>

Crops <sup>1</sup>	Minimum Time from Application to Harvest (PHI)	Use Rate Per Acre	Crop Oil Concentrate Rates Per Acre <sup>2</sup>	Special Use Instructions
				<p><b>Avalaire Clethodim 2 EC</b> to onion or garlic until the crop has at least two full leaves. Use a 14 day spray interval between the application of <b>Avalaire Clethodim 2 EC</b> and liquid nitrogen or other herbicide applications. Injury to crop may occur when shorter intervals are observed.]</p> <p>[*][Not for Use in California]</p>
<b>Peanut</b> (including perennial)	40 days	6-16 fl. oz. (0.09375 - 0.25 lb a.i.)	1 qt. by ground or 1.0% v/v (but no less than 1 pt./A) by air <sup>(2, 3)</sup>	<p>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.</p> <p>For repeat applications make on a minimum of a 14-day interval.</p> <p><b>RESTRICTIONS:</b></p> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 16 fl. oz./A (0.125 lb a.i./A) in a single application.</li> <li>• <b>DO NOT</b> make more than 2 applications per acre per year.</li> <li>• <b>DO NOT</b> apply more than 32 fl oz (0.500 lb ai) per acre per year.</li> </ul>
<p><b>[Subgroup 6C]</b>  <b>Pea, Dry Shelled</b>  including:  Pea (<i>Pisum</i> spp.)  Field  Pigeon</p>	30 days	6-8 fl. oz. (0.09375 - 0.125 lb a.i.)	1 qt. by ground or 1.0% v/v (but no less than 1 pt./A) by air <sup>(5)</sup>	<p>For repeat applications make on a minimum of a 14 day interval.</p> <p>Apply before bloom but not later than 30 days prior to harvest.</p> <p>Refer to appropriate Table for reduced rate directions for the control of small annual grasses.</p> <p>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.</p> <p>Applications of <b>Avalaire Clethodim 2 EC</b> to peas during the bloom period could result in severe crop injury, including loss of yield and delayed maturity.</p> <p><b>RESTRICTIONS:</b></p> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 8 fl. oz./A (0.125 lb a.i./A) in a single application.</li> <li>• <b>DO NOT</b> make more than one 1 application per acre per year.</li> </ul>

Crops <sup>1</sup>	Minimum Time from Application to Harvest (PHI)	Use Rate Per Acre	Crop Oil Concentrate Rates Per Acre <sup>2</sup>	Special Use Instructions
				<ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 8 fl oz (0.125 lb ai) per acre per year.</li> <li>• For Reduced Rate Control for Small Annual Grasses: <b>DO NOT</b> make more than 2 applications at 4 fl oz (0.0625 lb ai) per acre per year.</li> </ul>
<p><b>[Subgroup 6B]</b>  <b>Pea, Succulent Shelled</b>  including:  Pea (<i>Pisum</i> spp.)  English pea  Garden pea  Green pea  Pigeon pea</p>	21 days	6-8 fl. oz. (0.09375 - 0.125 lb a.i.)	1 qt. by ground or 1.0% v/v (but no less than 1 pt./A) by air <sup>(5)</sup>	<p>Apply before bloom but not later than 21 days prior to harvest.</p> <p>Refer to appropriate Table for reduced rate directions for the control of small annual grasses.</p> <p>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.</p> <p>For repeat applications make on a minimum of a 14-day interval.</p> <p><b>RESTRICTIONS:</b></p> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 8 fl. oz./A (0.125 lb a.i./A) in a single application.</li> <li>• <b>DO NOT</b> make more than one 1 application per acre per year.</li> <li>• <b>DO NOT</b> apply more than 8 fl oz (0.125 lb ai) per acre per year.</li> <li>• For Reduced Rate Control for Small Annual Grasses: <b>DO NOT</b> make more than 2 applications at 4 fl oz (0.0625 lb ai) per acre per year.</li> </ul>
<p><b>[Crop Group 11-10]</b>  <b>Pome Fruit</b> including  Apple  Azarole  Crabapple  Loquat  Mayhaw  Medlar  Pear  Pear, Asian  Quince  Quince, Chinese  Quince, Japanese  Tejocote</p>	14 days	4-8 fl. oz. (0.0625 – 0.125 lb a.i.)	Non-ionic surfactant (NIS) at 0.25% v/v	<p>For repeat applications make on a minimum of a 14 day interval.</p> <p><b>RESTRICTIONS:</b></p> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 8 fl. oz./A (0.125 lb a.i./A) in a single application.</li> <li>• <b>DO NOT</b> make more than 4 applications per acre per year.</li> <li>• <b>DO NOT</b> apply more than 32 fl oz (0.500 lb ai) per acre per year.</li> </ul>

Crops <sup>1</sup>	Minimum Time from Application to Harvest (PHI)	Use Rate Per Acre	Crop Oil Concentrate Rates Per Acre <sup>2</sup>	Special Use Instructions
Potato	30 days	6-16 fl. oz. (0.09375 - 0.25 lb a.i.)	1 qt. by ground or 1.0% v/v (but no less than 1 pt./A) by air <sup>(5)</sup>	<p>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.</p> <p>For repeat applications make on a minimum of a 14-day interval.</p> <p><b>RESTRICTIONS:</b></p> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 16 fl. oz./A (0.25 lb a.i./A) in a single application.</li> <li>• <b>DO NOT</b> make more than 2 applications at per acre per year.</li> <li>• <b>DO NOT</b> apply more than 32 fl oz (0.500 lb ai) per acre per year.</li> </ul>
Radish Radish Leaves	15 days	6-8 fl. oz. (0.09375 - 0.125 lb a.i.)	1.0% v/v in the finished spray volume	<p>For repeat applications make on a minimum of a 14-day interval.</p> <p><b>RESTRICTIONS:</b></p> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 8 fl. oz./A (0.125 lb a.i./A) in a single application</li> <li>• <b>DO NOT</b> make more than 2 applications at per acre per year.</li> <li>• <b>DO NOT</b> apply more than 16 fl. oz./A (0.25 lb. ai/A) per acre per year.</li> </ul>
[Subgroup 1B] Root Vegetables (except Sugar Beet and Radish), including: Burdock, Edible Celeriac Chervil, Turnip Rooted Chicory Ginseng Horseradish Parsley, Turnip Rooted Parsnip Radish, Oriental Rutabaga Salsify Salsify, Black Salsify, Spanish Skirret Turnip	30 days	6-8 fl. oz. (0.09375 - 0.125 lb a.i.)	1.0% v/v in the finished spray volume	<p>For repeat applications make on a minimum of a 14-day interval.</p> <p><b>RESTRICTIONS:</b></p> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 8 fl. oz./A (0.125 lb a.i./A) in a single application.</li> <li>• <b>DO NOT</b> make more than 4 applications per acre per year.</li> <li>• <b>DO NOT</b> apply more than 32 fl oz (0.500 lb ai) per acre per year.</li> </ul>
Safflower	70 days	6-8 fl. oz. (0.09375 - 0.125 lb a.i.)	1.0% v/v in the finished spray volume	<p>For repeat applications make on a minimum of a 14-day interval.</p> <p><b>RESTRICTIONS:</b></p> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 8 fl. oz./A (0.125 lb a.i./A) in a single application.</li> <li>• <b>DO NOT</b> make more than 4 applications per acre per year.</li> </ul>



Crops <sup>1</sup>	Minimum Time from Application to Harvest (PHI)	Use Rate Per Acre	Crop Oil Concentrate Rates Per Acre <sup>2</sup>	Special Use Instructions
				<ul style="list-style-type: none"> <li><b>DO NOT</b> apply more than 32 fl oz (0.500 lb ai) per acre per year.</li> </ul>
<b>Sesame</b>	14 days	6-8 fl. oz. (0.09375 - 0.125 lb a.i.)	1.0% v/v in the finished spray volume	<p>For repeat applications make on a minimum of a 14-day interval.</p> <p><b>RESTRICTIONS:</b></p> <ul style="list-style-type: none"> <li><b>DO NOT</b> apply more than 8 fl. oz./A (0.125 lb a.i./A) in a single application.</li> <li><b>DO NOT</b> make more than 4 applications per acre per year.</li> <li><b>DO NOT</b> apply more than 32 fl oz (0.500 lb ai) per acre per year.</li> <li><b>DO NOT</b> apply during flowering.</li> </ul>
<b>Soybean</b>	60 days	6-16 fl. oz. (0.09375 - 0.25 lb a.i.)	1 qt. by ground or 1.0% v/v (but no less than 1 pt./A) by air <sup>(5)</sup>	<p>Refer to appropriate Table for reduced rate directions for the control of small annual grasses.</p> <p>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.</p> <p>For repeat applications make on a minimum of a 14-day interval.</p> <p><b>RESTRICTIONS:</b></p> <ul style="list-style-type: none"> <li><b>DO NOT</b> apply more than 16 fl. oz./A (0.25 lb a.i./A) in a single application.</li> <li><b>DO NOT</b> make more than 2 applications at per acre per year.</li> <li><b>DO NOT</b> apply more than 32 fl oz (0.500 lb ai) per acre per year.</li> <li><b>DO NOT</b> graze treated fields or feed treated forage or hay to livestock.</li> <li>For Reduced Rate Control for Small Annual Grasses: <b>DO NOT</b> make more than 8 applications at 4 fl oz (0.0625 lb ai) per acre per year.</li> </ul>
<b>Squash/Cucumber [Subgroup 9B]</b> Chayote (fruit) Chinese waxgourd (Chinese preserving melon) Cucumber Gherkin Gourd, edible (includes hyotan, cucuzza, hechima, Chinese okra) <i>Momordica</i> spp. (includes	14 days	6-8 fl. oz. (0.09375 - 0.125 lb a.i.)	1.0% v/v in the finished spray volume	<p>For repeat applications make on a minimum of a 14-day interval.</p> <p><b>RESTRICTIONS:</b></p> <ul style="list-style-type: none"> <li><b>DO NOT</b> apply more than 8 fl. oz./A (0.125 lb a.i./A) in a single application.</li> <li><b>DO NOT</b> make more than 4 applications per acre per year.</li> <li><b>DO NOT</b> apply more than 32 fl oz (0.500 lb ai) per acre per year.</li> </ul>

Crops <sup>1</sup>	Minimum Time from Application to Harvest (PHI)	Use Rate Per Acre	Crop Oil Concentrate Rates Per Acre <sup>2</sup>	Special Use Instructions
balsam apple, balsam pear, bittermelon, Chinese cucumber) Pumpkin Squash, Summer Squash, Winter (includes butternut squash, calabaza, hubbard squash, acorn squash, spaghetti squash)				
<b>Stalk and Stem Vegetable [Subgroup 22A][*]</b> Agave Aloe Vera Asparagus Bamboo Shoots Celtnce Fennel, Florence (fresh leaves and stalk) Fern, Fiddlehead (edible) Kale, Sea Kohlrabi Palm Hearts Prickly Pear (pads) Prickly Pear, Texas (pads) cultivars, varieties, and/or hybrids of these commodities	1 day	6-8 fl. oz. (0.09375 - 0.125 lb a.i.)	1.0% v/v 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 lb a.i./A) in a single application</li> <li>• <b>DO NOT</b> make more than 2 applications at per acre per year.</li> <li>• <b>DO NOT</b> apply more than 16 fl. oz./A (0.25 lb. ai/A) per acre in a year.</li> </ul> [*][Not for Use in California]
<b>Stevia, dried leaves</b>	14 days	4-8 fl. oz. (0.0625 – 0.125 lb a.i)	Non-ionic surfactant (NIS) at 0.25% v/v	For repeat applications make on a minimum of a 14 day interval.  <b>Avalaire Clethodim 2 EC</b> has not been tested on all varieties. It is the responsibility of the user to test <b>Avalaire Clethodim 2 EC</b> on a small portion of the crop to be treated before treating the entire field.  Verify crop safety to <b>Avalaire Clethodim 2 EC</b> on a small area of the crop, at the desired <b>Avalaire Clethodim 2 EC</b> rate and with the same non-ionic surfactant (NIS) that will be used on the field. If no crop response is evident 7 days after treatment, <b>Avalaire Clethodim 2 EC</b> may be used on the entire field at the rate tested and with the same NIS used in the crop safety test.  <b>RESTRICTIONS:</b> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 8 fl. oz./A (0.125 lb a.i./A) in a single</li> </ul>

Crops <sup>1</sup>	Minimum Time from Application to Harvest (PHI)	Use Rate Per Acre	Crop Oil Concentrate Rates Per Acre <sup>2</sup>	Special Use Instructions
				<p>application.</p> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> make more than 4 applications per acre per year.</li> <li>• <b>DO NOT</b> apply more than 32 fl oz (0.500 lb ai) per acre per year.</li> </ul>
<p><b>[Crop Group 12-12]</b>  <b>Stone Fruit</b> including  Apricot  Apricot, Japanese  Capulin  Cherry, Black  Cherry, Nanking  Cherry, Sweet  Cherry, Tart;  Jujube, Chinese  Nectarine  Peach  Plum  Plum, American  Plum, Beach  Plum, Canada  Plum, Cherry  Plum, Chickasaw  Plum, Damson  Plum, Japanese  Plum, Klamath  Plum, Prune  Plumcot  Sloe</p>	14 days	4-8 fl. oz. (0.0625 – 0.125 lb a.i.)	Non-ionic surfactant (NIS) at 0.25% v/v	<p>For repeat applications make on a minimum of a 14 day interval.</p> <p><b>RESTRICTIONS:</b></p> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 8 fl. oz./A (0.125 lb a.i./A) in a single application.</li> <li>• <b>DO NOT</b> make more than 4 applications per acre per year.</li> <li>• <b>DO NOT</b> apply more than 32 fl oz (0.500 lb ai) per acre per year.</li> </ul>
<p><b>Strawberry</b></p>	4 days	6-8 fl. oz. (0.09375 - 0.125 lb a.i.)	1.0% v/v in the finished spray volume	<p>For repeat applications make on a minimum of a 14-day interval.</p> <p><b>RESTRICTIONS:</b></p> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 8 fl. oz./A (0.125 lb a.i./A) in a single application.</li> <li>• <b>DO NOT</b> make more than 4 applications per acre per year.</li> <li>• <b>DO NOT</b> apply more than 32 fl oz (0.500 lb ai) per acre per year.</li> </ul>
<p><b>Sugar Beet</b></p>	40 days	6-16 fl. oz. (0.09375 - 0.25 lb a.i.)	1 qt. by ground or 1.0% v/v (but no less than 1 pt./A) by air <sup>(5)</sup>	<p>Refer to appropriate Table for reduced rate directions for the control of small annual grasses.</p> <p>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.</p> <p>For repeat applications make on a minimum of a 14-day interval.</p> <p><b>RESTRICTIONS:</b></p> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 16 fl. oz./A</li> </ul>

Crops <sup>1</sup>	Minimum Time from Application to Harvest (PHI)	Use Rate Per Acre	Crop Oil Concentrate Rates Per Acre <sup>2</sup>	Special Use Instructions
				<p>(0.25 lb a.i./A) in a single application.</p> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> make more than 2 applications at per acre per year.</li> <li>• <b>DO NOT</b> apply more than 32 fl oz (0.500 lb ai) per acre 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 (0.0625 lb ai) per acre per year.</li> </ul>
<p><b>[Subgroup 20B]</b> <b>Sunflower</b></p>	<p>70 days</p>	<p>6-16 fl. oz. (0.09375 - 0.25 lb a.i.)</p>	<p>1 qt. by ground or 1.0% v/v (but no less than 1 pt./A) by air <sup>(5)</sup></p>	<p>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.</p> <p>Verify crop safety to <b>Avalaire Clethodim 2 EC</b> on a small area of the crop, at the desired <b>Avalaire Clethodim 2 EC</b> 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, <b>Avalaire Clethodim 2 EC</b> may be used on the entire field at the rate tested and with the same crop oil used in the crop safety test.</p> <p>For repeat applications make on a minimum of a 14-day interval.</p> <p><b>RESTRICTIONS:</b></p> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 16 fl. oz./A (0.25 lb a.i./A) in a single application.</li> <li>• <b>DO NOT</b> make more than 2 applications at per acre per year.</li> <li>• <b>DO NOT</b> apply more than 32 fl oz (0.500 lb ai) per acre 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 (0.0625 lb ai) per acre per year.</li> </ul>
<p><b>Tomato</b></p>	<p>20 days</p>	<p>6-16 fl. oz. (0.09375 - 0.25 lb a.i.)</p>	<p>1.0% v/v in the finished spray volume</p>	<p>For repeat applications make on a minimum of a 14-day interval.</p> <p><b>RESTRICTIONS:</b></p> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 16 fl. oz./A (0.25 lb a.i./A) in a single application.</li> <li>• <b>DO NOT</b> make more than 2 applications at per acre per year.</li> <li>• <b>DO NOT</b> apply more than 32 fl oz (0.500 lb ai) per acre per year.</li> </ul>

Crops <sup>1</sup>	Minimum Time from Application to Harvest (PHI)	Use Rate Per Acre	Crop Oil Concentrate Rates Per Acre <sup>2</sup>	Special Use Instructions
<b>Tree Nuts</b> <b>[Crop Group 14-12][*]</b> 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 Monkey-pot Monkey Puzzle Nut Okari Nut Pachira Nut Peach Palm Nut Pecan Pequi Pili Nut Pine Nut Pistachio Sapucaia Nut Tropical Almond Walnut, Black Walnut, English Yellowhorn Cultivars, varieties, and/or hybrids of these.	14 days	6-8 fl. oz. (0.09375 - 0.125 lb a.i.)	1.0% v/v 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 lb a.i./A) in a single application.</li> <li>• <b>DO NOT</b> make more than 4 applications per acre per year.</li> <li>• <b>DO NOT</b> apply more than 32 fl oz (0.500 lb ai) per acre per year.</li> </ul> [*][Not for Use in California]
<b>Tuberous and Corm Vegetables Subgroup [Subgroup 1C]</b> (except Potato) <b>Including Sweet Potato,</b> Yam Artichoke Chinese Jerusalem Cassava Bitter	30 days	6-16 fl. oz. (0.09375 - 0.25 lb a.i.)	1.0% v/v in the finished spray volume	For repeat applications make on a minimum of a 14 day interval.  The addition of Ammonium Sulfate (AMS) has shown improved grass control for difficult to control species including: quackgrass, rhizome, Johnsongrass, red rice, wild oats, volunteer cereals and volunteer corn.

Crops <sup>1</sup>	Minimum Time from Application to Harvest (PHI)	Use Rate Per Acre	Crop Oil Concentrate Rates Per Acre <sup>2</sup>	Special Use Instructions
Sweet Ginger				<b>RESTRICTIONS:</b> <ul style="list-style-type: none"> <li><b>DO NOT</b> apply more than 16 fl. oz./A (0.25 lb a.i./A) in a single application.</li> <li><b>DO NOT</b> make more than 2 applications at per acre per year.</li> <li><b>DO NOT</b> apply more than 32 fl oz (0.500 lb ai) per acre per year.</li> </ul>
Turnip Greens	14 days	6-8 fl. oz. (0.09375 - 0.125 lb a.i.)	1.0% v/v 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 lb a.i./A) in a single application.</li> <li><b>DO NOT</b> make more than 4 applications per acre per year.</li> <li><b>DO NOT</b> apply more than 32 fl oz (0.500 lb ai) per acre per year.</li> </ul>
Watercress[*]	30 days	6-8 fl. oz. (0.09375 - 0.125 lb a.i.)	1.0% v/v 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 lb a.i./A) in a single application.</li> <li><b>DO NOT</b> make more than 4 applications per acre per year.</li> <li><b>DO NOT</b> apply more than 32 fl oz (0.500 lb ai) per acre per year.</li> <li><b>DO NOT</b> apply when watercress is under flood conditions.</li> <li><b>DO NOT</b> apply <b>Avalaire Clethodim 2 EC</b> when water is in the field and hold water for at least 24 hours after an application.</li> </ul>

N/A - Not Applicable

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

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

<sup>3</sup> **Avalaire Clethodim 2 EC** may be applied to seedling or established alfalfa grown for seed, hay, silage, green chop or direct grazing.

<sup>4</sup> For weed control in established alfalfa and peppermint and spearmint tops, the minimum use rate is 10 fl. oz./A (0.156 lb a.i./A)

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

<sup>6</sup> **DO NOT** apply **Avalaire Clethodim 2 EC** plus 2,4-DB as a tank mix to alfalfa unless the 60 day feeding, grazing, and harvesting restriction on the 2,4-DB label can be observed.

### IMPORTANT

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

### INSTRUCTIONS FOR ANNUAL GRASSES (EXCEPT FOR IN ESTABLISHED ALFALFA AND 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 Table 1, Crop Specific Use Directions and Restrictions for **Avalaire Clethodim 2 EC**.
- **DO NOT** exceed the maximum number of applications per year listed in Table 1, Crop Specific Use Directions and Restrictions for **Avalaire Clethodim 2 EC**.
- **DO NOT** exceed the maximum yearly rate listed in Table 1, Crop Specific Use Directions and Restrictions for **Avalaire Clethodim 2 EC**.

GRASS SPECIES	SCIENTIFIC NAME	WEED HEIGHT* (inches)	RATE FL. OZ./ACRE (lb a.i./A)	HIGH RATE <sup>1</sup> FL. OZ./ACRE (lb a.i./A)
Barnyardgrass	<i>Echinochloa crus-galli</i>	2 to 8	6 (0.09375)	8 (0.125)
Broadleaf Signalgrass	<i>Brachiaria platyphylla</i>	2 to 6	6 (0.09375)	8 (0.125)
Brome				
California	<i>Bromus carinatus</i>	2 to 6	6 (0.09375)	8 (0.125)
Cheat	<i>Bromus secalinus</i>	2 to 6	6 (0.09375)	8 (0.125)
Downy	<i>Bromus tectorum</i>	2 to 6	6 (0.09375)	8 (0.125)
Ripgut	<i>Bromus diandrus</i>	2 to 6	6 (0.09375)	8 (0.125)
Canarygrass	<i>Phalaris canariensis</i>	1 to 4	6 (0.09375)	8 (0.125)
Crabgrass				
Hairy	<i>Digitaria adscendens</i>	2 to 6**	6 (0.09375)	8 (0.125)
Large	<i>Digitaria sanguinalis</i>	2 to 6**	6 (0.09375)	8 (0.125)
Smooth	<i>Digitaria ischaemum</i>	2 to 6**	6 (0.09375)	8 (0.125)
Southern	<i>Digitaria ciliaris</i>	2 to 6**	6 (0.09375)	8 (0.125)
Crowfootgrass	<i>Dactyloctenium aegyptium</i>	2 to 6**	6 (0.09375)	8 (0.125)
Fall Panicum	<i>Panicum dichotomiflorum</i>	2 to 8	6 (0.09375)	8 (0.125)
Field Sandbur	<i>Cenchrus incertus</i>	2 to 6	6 (0.09375)	8 (0.125)
Foxtail				
Giant	<i>Setaria faberi</i>	2 to 12	6 (0.09375)	8 (0.125)
Green	<i>Setaria viridis</i>	2 to 8	6 (0.09375)	8 (0.125)
Yellow	<i>Setaria glauc</i>	2 to 8	6 (0.09375)	8 (0.125)
Goosegrass	<i>Eleusine indica</i>	2 to 6**	6 (0.09375)	8 (0.125)
Itchgrass	<i>Rottboellia cochinchinensis</i>	2 to 6	6 (0.09375)	8 (0.125)
Junglerice	<i>Echinochloa colona</i>	2 to 6	6 (0.09375)	8 (0.125)
Lovegrass (Stinkgrass)	<i>Eragrostis cilianensis</i>	2 to 6	6 (0.09375)	8 (0.125)
Rabbitsfootgrass	<i>Polypogon monspeliensis</i>	1 to 4	6 (0.09375)	8 (0.125)
Red Rice	<i>oryza sativa</i>	1 to 3	6 (0.09375)	8 (0.125)
Ryegrass				
Hardy	<i>Lolium remotum</i>	2 to 6	6 (0.09375)	8 (0.125)
Italian	<i>Lolium multiflorum</i>	2 to 6	6 (0.09375)	8 (0.125)

GRASS SPECIES	SCIENTIFIC NAME	WEED HEIGHT* (inches)	RATE FL. OZ./ACRE (lb a.i./A)	HIGH RATE <sup>1</sup> FL. OZ./ACRE (lb a.i./A)
Seedling Johnsongrass	<i>Sorghum halepense</i>	4 to 10	6 (0.09375)	8 (0.125)
Shattercane	<i>Sorghum bicolor</i>	6 to 18	6 (0.09375)	8 (0.125)
Southwestern Cupgrass	<i>Eriochloa gracilis</i>	2 to 6	6 (0.09375)	8 (0.125)
Sprangle top				
Amazon	<i>Leptochloa panicoides</i>	2 to 6	6 (0.09375)	8 (0.125)
Bearded	<i>Leptochloa fascicularis</i>	2 to 6	6 (0.09375)	8 (0.125)
Mexican	<i>Leptochloa uninervia</i>	2 to 6	6 (0.09375)	8 (0.125)
Red	<i>Leptochloa filiformis</i>	2 to 6	6 (0.09375)	8 (0.125)
Texas Panicum	<i>Panicum fexanum</i>	2 to 6	6 (0.09375)	8 (0.125)
Barley	<i>Hordeum vulgare</i>	2 to 6	6 (0.09375)	8 (0.125)
Oats	<i>Avena sativa</i>	2 to 6	6 (0.09375)	8 (0.125)
Rye	<i>Secale cereale</i>	2 to 6	6 (0.09375)	8 (0.125)
Wheat	<i>Triticum aestivum</i>	2 to 6	6 (0.09375)	8 (0.125)
Volunteer Corn <sup>3</sup>	<i>Zea mays</i>	4 to 12	4 (0.0625)	6 (0.09375)
Volunteer Corn (S.R.) <sup>4</sup>	<i>Zea mays</i>	4 to 12	8 (suppression only)	0.125
Volunteer Grain Sorghum	<i>Sorghum bicolor</i>	8 to 12	6 (0.09375)	8 (0.125)
Wild Oats	<i>Avena fatua</i>	2 to 6	6 (0.09375)	8 (0.125)
Wild Proso Millet	<i>Panicum miliaceum</i>	2 to 10	6 (0.09375)	8 (0.125)
Witchgrass	<i>Panicum capillare</i>	2 to 8	6 (0.09375)	8 (0.125)
Woolly Cupgrass	<i>Eriochloa villosa</i>	2 to 8	6 (0.09375)	8 (0.125)

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

\*\*Length of lateral growth.

<sup>1</sup> Rates higher than 8 fl. oz./A (0.125 lb a.i./A) may be applied in certain geographic areas, cropping situations, or environmental conditions, where experience has shown that higher rates are needed for satisfactory control of annual grasses. In these situations, rates from 8 to 16 fl. oz./A (0.125 to 0.25 lb a.i./A) may be applied. **DO NOT** apply more than 6 fl. oz./A of **Avalaire Clethodim 2 EC** (0.09375 lb a.i.) per application to rapeseed subgroup 20A listed crops or mustard seed.

<sup>2</sup> When a cereal grain crop (including wheat) is interseeded for crop establishment or is planted as wind breaks to aid crop establishment, the minimum **Avalaire Clethodim 2 EC** use rate for control is 8 fl. oz./A (0.125 lb a.i./A).

<sup>3</sup> Includes Roundup Ready®, Liberty Link® and IMI-CORN® volunteer corn.

<sup>4</sup> Sethoxydim resistant volunteer corn.

INSTRUCTIONS FOR ANNUAL & PERENNIAL GRASS CONTROL IN ESTABLISHED ALFALFA AND PEPPERMINT AND SPEARMINT TOPS WITH AVALAIRE CLETHODIM 2 EC			
GRASS SPECIES	WEED STAGE	RATE FL. OZ./ACRE (lb a.i./A)	HIGH RATE (lb a.i./A)
Annual & Perennial Grasses Listed in Grass Table	See Table	10 (0.156)	16 (0.25)
<p><b>Mowing:</b> The best control of annual grasses can be achieved by applying <b>Avalaire Clethodim 2 EC</b> 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 applications of <b>Avalaire Clethodim 2 EC</b> for partial or complete control.</p> <p><b>Irrigated Alfalfa and Peppermint and Spearmint Tops:</b> Irrigation practices can be very critical to the successful use of <b>Avalaire Clethodim 2 EC</b> in established alfalfa and peppermint and spearmint tops and may be necessary to initiate active growth of the weeds prior to application. Generally applications 2 to 4 days after an irrigation are most effective. Irrigation made shortly after application (2 days) can be effective, but more consistent grass control occurs when the irrigation is made before the application.</p> <p><b>Aerial Application:</b> Apply <b>Avalaire Clethodim 2 EC</b> in a minimum of 10 GPA in established alfalfa and peppermint and spearmint tops when applying by air.</p>			



**Annual Grass Control:** Apply **Avalaire Clethodim 2 EC** at the grass sizes indicated in the Directions for Annual Grass Table and rates indicated. If a grass has been cut, apply **Avalaire Clethodim 2 EC** 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 **Avalaire Clethodim 2 EC** may vary from region to region. Also some annuals germinate over an extended period of time, and because control of small grasses is desired, applications after each weed flush may be required. As a general rule spray spring and summer-germinating grasses as early in the season as possible, after initial green-up. Spray fall-germinating weeds in the fall soon after they begin growing but before any damage is done due to frost. Late fall applications may be less effective due to environmental conditions, including frost, slower plant growth, or the onset of flowering.

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

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

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

**INSTRUCTIONS FOR ANNUAL BLUEGRASS CONTROL WITH AVALAIRE CLETHODIM 2 EC**

<b>GRASS SPECIES</b>	<b>WEED STAGE</b>	<b>RATE FL. OZ./ACRE (lb a.i./A)</b>	<b>HIGH RATE FL. OZ./ACRE (lb a.i./A)</b>
Annual Bluegrass ( <i>Poa annua</i> )	To 4-leaf	6* (0.09375)	16 (0.25)

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

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

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

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

\*Use a minimum of 10 fl. oz./A (0.156 lb a.i./A) to control annual bluegrass in seedling and established alfalfa and peppermint and spearmint tops

**DIRECTIONS FOR REDUCED RATE TO CONTROL SMALL ANNUAL GRASSES IN CANOLA, DRIED SHELLLED BEAN & PEA (INCLUDING SOYBEAN), EDIBLE PODDED LEGUME VEGETABLES, FLAX, MUSTARD SEED, BEAN & PEA (SUCCULENT SHELLLED) 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 or high temperatures and/or under very low humidity.

GRASS SPECIES	SCIENTIFIC NAME	WEED HEIGHT (inches)	RATE FL. OZ./ACRE <sup>1</sup> (lb a.i./A)
Barnyardgrass	<i>Echinochloa crus-galli</i>	1 to 4	4 (0.0625)
Broadleaf Signalgrass	<i>Brachiaria platyphylla</i>	1 to 4	5 (0.078)
Crabgrass			
Large	<i>Digitaria sanguinalis</i>	1 to 3*	4 (0.0625)
Large	<i>Digitaria sanguinalis</i>	1 to 4*	5 (0.078)
Smooth	<i>Digitaria ischaemum</i>	1 to 3*	4 (0.0625)
Smooth	<i>Digitaria ischaemum</i>	1 to 4*	5 (0.078)
Southern	<i>Digitaria ciliaris</i>	1 to 4*	5 (0.078)
Fall Panicum	<i>Panicum dichotomiflorum</i>	1 to 4	4 (0.0625)
Foxtail			
Giant	<i>Setaria faberi</i>	1 to 4	4 (0.0625)
Green	<i>Setaria viridis</i>	1 to 4	4 (0.0625)
Millet	<i>Setaria italica</i>	1 to 4	5 (0.078)
Yellow	<i>Setaria glauca</i>	1 to 4	4 (0.0625)
Seedling Johnsongrass	<i>Sorghum halepense</i>	1 to 6	5 (0.078)
Shattercane	<i>Sorghum bicolor</i>	4 to 10	4 (0.0625)
Texas Panicum	<i>Panicum texanum</i>	1 to 4	5 (0.078)
Volunteer Cereals			
Barley	<i>Hordeum vulgare</i>	1 to 4	5 (0.078)
Oats	<i>Avena sativa</i>	1 to 4	5 (0.078)
Wheat	<i>Triticum aestivum</i>	1 to 4	5 (0.078)
Volunteer Corn**	<i>Zea mays</i>	4 to 12	4 (0.0625)
Wild Proso Millet	<i>Panicum miliaceum</i>	1 to 6	4 (0.0625)
Wild Oats	<i>Avena fatua</i>	1 to 4	5 (0.078)

\*Length of lateral growth

\*\*Not S.R. Corn

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

### INSTRUCTIONS FOR PERENNIAL GRASSES

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

#### Restrictions

- **DO NOT** exceed the maximum rate per application listed in Table 1, Crop Specific Use Directions and Restrictions for **Avalaire Clethodim 2 EC**.
- **DO NOT** exceed the maximum number of applications per year listed in Table 1, Crop Specific Use Directions and Restrictions for **Avalaire Clethodim 2 EC**.
- **DO NOT** exceed the maximum yearly rate listed in Table 1, Crop Specific Use Directions and Restrictions for **Avalaire Clethodim 2 EC**.

GRASS SPECIES	WEED HEIGHT (inches)	RATE FL. OZ./ACRE (lb a.i./A)	HIGH RATE FL. OZ./ACRE (lb a.i./A)
<b>Bermudagrass (<i>Cynodon dactylon</i>)</b>			
First Application	3 (or up to 6" runners)	8 (0.125)	16 (0.25)
Repeat Application(s) (if regrowth occurs)	3 (or up to 6" runners)	8 (0.125)	16 (0.25)
<b>Fescue, Tall (<i>Festuca arundinacea</i>)</b>			

GRASS SPECIES	WEED HEIGHT (inches)	RATE FL. OZ./ACRE (lb a.i./A)	HIGH RATE FL. OZ./ACRE (lb a.i./A)
First Application	4 to 8	8 (0.125)	16 (0.25)
Repeat Application(s) (if regrowth occurs)	4 to 8	8 (0.125)	16 (0.25)
<b>Foxtail Barley (<i>Hordeum jubatum</i>)</b>			
First Application	2 to 6	8 (0.125)	16 (0.25)
Repeat Application(s) (if regrowth occurs)	2 to 6	8 (0.125)	16 (0.25)
<b>Orchardgrass (<i>Dactylis glomerata</i>)</b>			
First Application	4 to 8	8 (0.125)	16 (0.25)
Repeat Application(s) (if regrowth occurs)	4 to 8	8 (0.125)	16 (0.25)
<b>Quackgrass (<i>Elytrigia repens</i>)</b>			
First Application	4 to 12	8 (0.125)	16 (0.25)
Repeat Application(s) (if regrowth occurs)	4 to 12	8 (0.125)	16 (0.25)
<b>Rhizome Johnsongrass (<i>Sorghum halepense</i>)</b>			
First Application	12 to 24	8 (0.125)	16 (0.25)
Repeat Application(s) (if regrowth occurs)	6 to 18	8 (0.125)	8 (0.125)
<b>Perennial Bluegrass*</b>			
<b>Roughstalk (<i>Poa trivialis</i>)</b>			
<b>Kentucky (<i>Poa prantensis</i>)</b>			
First Application	2 to 4	8 (0.125)	16 (0.25)
Repeat Application(s) (if regrowth occurs)	2 to 4	8 (0.125)	16 (0.25)
<b>Bentgrass* (<i>Agrostis</i> spp.)</b>			
First Application	2 to 4	--	16 (0.25)
Repeat Application(s) (if regrowth occurs)	2 to 4	--	16 (0.25)

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

#### TANK MIXES INFORMATION

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

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

**TANK MIX APPLICATION OF AVALAIRE CLETHODIM 2 EC 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 that 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 **Avalaire Clethodim 2 EC**, as specified in the respective size and rate tables.
- **DO NOT** tank mix **Avalaire Clethodim 2 EC** when broad leaf weeds are tall and/or dense enough to prevent proper grass coverage.

**MIXING INSTRUCTIONS**

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

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

**INFORMATION ON ANTAGONISM**

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

**ALFALFA**

**Table 1. AVALAIRE CLETHODIM 2 EC TANK MIXES WITH BROADLEAF HERBICIDES FOR ALFALFA**  
(Refer to the instruction 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	GROUND	AIR
<b>Avalaire Clethodim 2 EC</b> + 2,4-DB <sup>4</sup>	10 to 16 fl. oz. (0.156 to 0.25 lb a.i.) + See tank mix partner label	10 to 16 fl. oz. (0.156 to 0.25 lb a.i.) + See tank mix partner label	1%	1%
<b>Avalaire Clethodim 2 EC</b> + Imazethapyr <sup>5</sup> or Ammonium Salt of Imazethapyr <sup>5</sup>	10 to 16 fl. oz. (0.156 to 0.25 lb a.i.) + See tank mix partner label or See tank mix partner label	--	1%	1%
<b>Avalaire Clethodim 2 EC</b> + Bromoxynil octanoate <sup>6</sup> or Bromoxynil heptanoate + Bromoxynil	10 to 16 fl. oz. (0.156 to 0.25 lb a.i.) + See tank mix partner label or See tank mix partner label	--	0.5%	0.5%

PRODUCT <sup>2</sup>	APPLICATION RATES/ACRE <sup>1</sup>		CROP OIL CONCENTRATE <sup>3</sup> V/V	
octanoate <sup>6,7</sup>				

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

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

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

<sup>4</sup> **Avalaire Clethodim 2 EC** plus 2,4-DB may increase the severity of crop injury when tank mixed. Alfalfa plants will generally outgrow this temporary crop injury within a few weeks.

<sup>5</sup> Before using this tank mix, read and understand the tank mix partner label 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 Ammonium salt of imazethapyr to alfalfa.

<sup>6</sup> 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 **Avalaire Clethodim 2 EC** plus Bromoxynil octanoate or Bromoxynil heptanoate + Bromoxynil octanoate tank mix must be applied in the fall or spring to seedling alfalfa when the majority of the field has a minimum of 2 trifoliates. Unacceptable crop injury may occur to alfalfa seedlings less than the 2 trifoliolate leaf stage. **Avalaire Clethodim 2 EC** plus Bromoxynil octanoate or Bromoxynil heptanoate + Bromoxynil octanoate applications made when temperatures are expected to exceed 80°F at (and 3 days following) application can result in unacceptable crop injury. In the states not listed above, apply in the fall or spring to seedling alfalfa when the majority of the field has a minimum of 4 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 at growth. **Avalaire Clethodim 2 EC** plus Bromoxynil octanoate or Bromoxynil heptanoate + Bromoxynil octanoate applications made when temperatures are expected to exceed 70°F at (and 3 days following) application can result in unacceptable crop injury. Crop leaf burn can occur following **Avalaire Clethodim 2 EC** plus Bromoxynil octanoate or Bromoxynil heptanoate + Bromoxynil octanoate application. Warm, humid conditions may enhance leaf burn. New crop growth will not be affected.

<sup>7</sup> **DO NOT** apply when alfalfa is under moisture, temperature, insect or disease stress or has been stressed by other pesticide carryover or application.

**Table 2. REDUCED RATE AVALAIRE CLETHODIM 2 EC TANK MIXES WITH BROADLEAF HERBICIDES FOR RAPESEED SUBGROUP 20A LISTED CROPS**

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

PRODUCT	APPLICATION RATES/ACRE		AMMONIUM SULFATE	
	ANNUAL GRASSES	PERENNIAL GRASSES	GROUND	AIR
<b>Avalaire Clethodim 2 EC<sup>2</sup></b> + Glufosinate <sup>3</sup>	4 to 5 fl. oz. (0.0625 to 0.078 lb a.i.) + See tank mix partner label	--	3.0 lbs.	3.0 lbs.

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

<sup>2</sup> **DO NOT** apply **Avalaire Clethodim 2 EC** tank mix during or after bolting or flowering or crop injury may occur.

<sup>3</sup> For use only on LibertyLink<sup>®</sup> rapeseed subgroup 20A listed crops

### COTTON

**Table 3. AVALAIRE CLETHODIM 2 EC TANK MIXED WITH LACTOFEN AND MSMA APPLIED POST DIRECTED TO COTTON**

PRODUCT <sup>1</sup>	APPLICATION RATES/ACRE <sup>2</sup>		CROP OIL CONCENTRATE <sup>3</sup> V/V	COMMENTS
	ANNUAL GRASSES	PERENNIAL GRASSES	GROUND	
<b>Avalaire Clethodim 2 EC<sup>4</sup></b> + Lactofen	6 to 8 fl. oz. (0.09375 - 0.125 lb a.i.)	8 to 16 fl. oz. (0.125 to 0.25 lb a.i.)	1%	Reduce broadcast rate in proportion to the band area

+ MSMA (4.0 lbs./gal.) or MSMA (6.0 lbs./gal.)	See tank mix partner label for rates to control broadleaf weeds and height limitations for cotton. Refer to the <b>Avalaire Clethodim 2 EC</b> label for weed height and species control.		actually treated.
	See tank mix partner label for rates to control broadleaf weeds and height limitations for cotton. Refer to the <b>Avalaire Clethodim 2 EC</b> label for weed height and species control.		

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

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

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

<sup>4</sup> If at the time of application, grass height is so tall that post-directed applications cannot get good coverage over the top of the grassy weeds, then poor control may result and a second (non-post directed) application of **Avalaire Clethodim 2 EC** may be necessary.

**Table 4. AVALAIRE CLETHODIM 2 EC TANK MIXED WITH BROMOXYNIL HEPTANOATE + BROMOXYNIL OCTANOATE TO CONTROL EMERGED WEEDS IN BXN COTTON AS A BROADCAST APPLICATION**

PRODUCT	APPLICATION RATES/ACRE		CROP OIL CONCENTRATE PER ACRE <sup>3</sup>	COMMENTS <sup>7</sup>
	ANNUAL GRASSES	PERENNIAL GRASSES		
<b>Avalaire Clethodim 2 EC</b> <sup>2</sup> + Bromoxynil heptanoate + Bromoxynil octanoate <sup>4, 5, 6</sup>	8 to 16 fl. oz. (0.125 to 0.25 lb a.i.) + See tank mix partner label for rates to control broadleaf weeds and height limitations for cotton		1 qt.	See charts for grasses controlled.

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

<sup>2</sup> If grass regrowth occurs or an additional flush of new grass emerges, make a second application of **Avalaire Clethodim 2 EC** at the specified rate with the appropriate amount of crop oil concentrate in a non-Bromoxynil heptanoate + Bromoxynil octanoate tank mix.

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

<sup>4</sup> Applications of Bromoxynil heptanoate + Bromoxynil octanoate can be made only to cotton that has been genetically modified for crop resistance to postemergence over-the-top applications of bromoxynil.

<sup>5</sup> **DO NOT** apply the **Avalaire Clethodim 2 EC** plus Bromoxynil heptanoate + Bromoxynil octanoate tank mix within 75 days of harvest.

<sup>6</sup> **DO NOT** exceed 2 applications of Bromoxynil heptanoate + Bromoxynil octanoate before cotton is 12 inches tall and one application after 12 inches tall.

<sup>7</sup> Use a minimum of 10 gals. of spray solution per acre.

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

PRODUCT	APPLICATION RATES/ACRE		ADJUVANT		COMMENTS
	ANNUAL GRASSES	PERENNIAL GRASSES	Glyphosate formulation with built in adjuvant	Glyphosate formulation without built in adjuvant	
<b>Avalaire Clethodim 2 EC</b> + Glyphosate	6 to 8 fl. oz. (0.09375 - 0.125 lb a.i.)	8 to 16 fl. oz. (0.125 to 0.25 lb a.i.)	Non-ionic surfactant @ 0.125 to 0.25% v/v plus ammonium sulfate	Non-ionic surfactant @ 1 pt./A plus ammonium	See charts for grasses controlled. Use a minimum of 10 gals. of spray

			@ 8.5 to 17 lbs. per 100 gals. of carrier	sulfate @ 8.5 to 17 lbs. per 100 gals. of carrier	solution per acre.
--	--	--	---	---	--------------------

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

### DRY SHELLLED AND SUCCULENT BEANS

**Table 6. AVALAIRE CLETHODIM 2 EC TANK MIXES WITH BROADLEAF HERBICIDES FOR DRY SHELLLED AND SUCCULENT BEANS (Refer to the recommendation 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	GROUND	AIR
<b>Avalaire Clethodim 2 EC</b> + Bentazon	8 to 10 fl. oz. (0.125 to 0.156 lb a.i.) + See tank mix partner label	10 to 16 fl. oz. (0.156 to 0.25 lb a.i.) + See tank mix partner label	1%	1%

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

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

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

### FLAX

**Table 7. REDUCED RATE AVALAIRE CLETHODIM 2 EC TANK MIXES WITH BROADLEAF HERBICIDES FOR FLAX (Refer to the direction tables above for specific grasses and growth stages)**

PRODUCT	APPLICATION RATES/ACRE		CROP OIL CONCENTRATE	
	ANNUAL GRASSES <sup>1</sup>	PERENNIAL GRASSES	GROUND	AIR
<b>Avalaire Clethodim 2 EC</b> + Bromoxynil heptanoate + Bromoxynil octanoate + 2- ethylhexyl ester of MCPA <sup>2,3</sup>	4 to 5 fl. oz. (0.0625 to 0.078 lb a.i.) + See tank mix partner label	--	1 pt.	1 pt.
<b>Avalaire Clethodim 2 EC</b> + Bromoxynil octanoate	4 to 5 fl. oz. (0.0625 to 0.078 lb a.i.) + See tank mix partner label	--	1 pt.	1 pt.
<b>Avalaire Clethodim 2 EC</b> + 2-ethylhexyl ester of 2- methyl-4-chlorophenoxyacetic acid <sup>2,3</sup>	4 to 5 fl. oz. (0.0625 to 0.078 lb a.i.) + See tank mix partner label	--	1 pt.	1 pt.

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

<sup>2</sup> **DO NOT** apply **Avalaire Clethodim 2 EC** tank mix during or after the bud stage or to ornamental flax or crop injury may occur.

<sup>3</sup> **DO NOT** apply tank mixes if temperatures are expected to exceed 85°F at (or 3 days following) application or crop injury may occur.



## SOYBEAN

**Table 8. AVAIRE CLETHODIM 2 EC TANK MIXES<sup>3</sup> TO CONTROL ANNUAL GRASSES WHEN USED AS A BURNDOWN IN NO-TILL SOYBEAN**

PRODUCT	PRODUCT RATE/ACRE <sup>1</sup>	GRASS HEIGHT (Inches)	CROP OIL CONCENTRATE/ACRE <sup>2</sup>	28%N OR 32%N QTS./A OR 2.5 TO 4.0 LBS. AMS
Avalaire Clethodim 2 EC  + 2,4-D Ester* <sup>3</sup>	3 fl. oz. (0.0468 lb a.i.)	Foxtail 1 to 3 Fall Panicum 1 to 3	1 qt.	1 to 2 qts. or 2.5 to 4.0 lbs. AMS
	4 fl. oz. (0.0625 lb a.i.)	Foxtail 1 to 4 Fall Panicum 1 to 4	1 qt.	1 to 2 qts. or 2.5 to 4.0 lbs. AMS
	6 to 8 fl. oz. (0.09375 - 0.125 lb a.i.) + See tank mix partner label	(See Grass Chart for grasses claimed.)	1 qt.	1 to 2 qts. or 2.5 to 4.0 lbs. AMS

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

<sup>1</sup> If regrowth occurs or an additional flush of new grass emerges, make a second application of **Avalaire Clethodim 2 EC** according to the appropriate size and rate directions.

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

<sup>3</sup> The following products can be tank mixed with **Avalaire Clethodim 2 EC** plus 2,4-D ester: Flumioxazin, Sulfentrazone + Chlorimuron Ethyl, Metolachlor, S-metolachlor, Pendimethalin, Metribuzin.

**Table 9. AVAIRE CLETHODIM 2 EC TANK MIXES WITH BROADLEAF HERBICIDES FOR SOYBEAN (Refer to the 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	GROUND	AIR
Avalaire Clethodim 2 EC  + Lactofen	6 to 8 fl. oz. (0.09375 - 0.125 lb a.i.) + See tank mix partner label	8 to 16 fl. oz. (0.125 to 0.25 lb a.i.) + See tank mix partner label	0.5 to 1%	1%
Avalaire Clethodim 2 EC  + Bentazon	8 to 10 fl. oz. (0.125 to 0.156 lb a.i.) + See tank mix partner label	10 to 16 fl. oz. (0.156 to 0.25 lb a.i.) + See tank mix partner label	1%	1%
Avalaire Clethodim 2 EC  + Glyphosate (for use on Roundup Ready soybean only)	6 to 8 fl. oz. (0.09375 - 0.125 lb a.i.) + See tank mix partner label	8 to 16 fl. oz. (0.125 to 0.25 lb a.i.) + See tank mix partner label	0.5 to 1% <sup>4</sup>	1% <sup>4</sup>
Avalaire Clethodim 2 EC  + Acifluorfen	6 to 8 fl. oz. (0.09375 - 0.125 lb a.i.) + See tank mix partner label	6 to 8 fl. oz. (0.09375 - 0.125 lb a.i.) + See tank mix partner label	0.5 to 1%	1%
Avalaire Clethodim 2 EC  + Ffomesafen	6 to 8 fl. oz. (0.09375 - 0.125 lb a.i.) + See tank mix partner label	8 to 16 fl. oz. (0.125 to 0.25 lb a.i.) + See tank mix partner label	1%	1%
Avalaire Clethodim 2 EC  + 	8 to 10 fl. oz. (0.125 to 0.156 lb a.i.) + 	10 to 16 fl. oz. (0.156 to 0.25 lb a.i.) + 	1%	1%



PRODUCT <sup>2</sup>	APPLICATION RATES/ACRE <sup>1</sup>		CROP OIL CONCENTRATE <sup>3</sup> V/V	
	ANNUAL GRASSES	PERENNIAL GRASSES	GROUND	AIR
Chlorimuron ethyl	See tank mix partner label	See tank mix partner label		
<b>Avalaire Clethodim 2 EC</b> + Imazethapyr	6 to 8 fl. oz. (0.09375 - 0.125 lb a.i.) + See tank mix partner label	8 to 16 fl. oz. (0.125 to 0.25 lb a.i.) + See tank mix partner label	1%	1%
<b>Avalaire Clethodim 2 EC</b> + Lactofen + Chlorimuron ethyl	8 to 10 fl. oz. (0.125 to 0.156 lb a.i.) + See tank mix partner label + See tank mix partner label	--	0.5%	1%
<b>Avalaire Clethodim 2 EC</b> + Lactofen + Bentazon	8 to 10 fl. oz. (0.125 to 0.156 lb a.i.) + See tank mix partner label + See tank mix partner label	--	0.5%	1%
<b>Avalaire Clethodim 2 EC</b> + Lactofen + Imazethapyr	8 to 10 fl. oz. (0.125 to 0.156 lb a.i.) + See tank mix partner label + See tank mix partner label	--	0.5%	1%
<b>Avalaire Clethodim 2 EC</b> + Bentazon + Acifluorfen	8 to 10 fl. oz. (0.125 to 0.156 lb a.i.) + See tank mix partner label	--	0.5%	1%
<b>Avalaire Clethodim 2 EC</b> + Flumiclorac pentyl ester + Imazethapyr	8 to 10 fl. oz. (0.125 to 0.156 lb a.i.) + 4 fl. oz. + See tank mix partner label	--	1%	1%
<b>Avalaire Clethodim 2 EC</b> + Flumiclorac pentyl ester + Bentazon	8 to 10 fl. oz. (0.125 to 0.156 lb a.i.) + See tank mix partner label + See tank mix partner label	--	1%	1%
<b>Avalaire Clethodim 2 EC</b> + Flumiclorac pentyl ester + Chlorimuron-ethyl	8 to 10 fl. oz. (0.125 to 0.156 lb a.i.) + See tank mix partner label + See tank mix partner label	--	1%	1%
<b>Avalaire Clethodim 2 EC</b> + Lactofen + Flumiclorac pentyl ester	6 to 8 fl. oz. (0.09375 - 0.125 lb a.i.) + See tank mix partner label + See tank mix partner label	--	0.5%	1%
<b>Avalaire Clethodim 2 EC</b>	6 to 8 fl. oz.	8 to 16 fl. oz.	1%	

PRODUCT <sup>2</sup>	APPLICATION RATES/ACRE <sup>1</sup>		CROP OIL CONCENTRATE <sup>3</sup> V/V	
	ANNUAL GRASSES	PERENNIAL GRASSES	GROUND	AIR
+ Cloransulam-methyl	(0.09375 - 0.125 lb a.i.) + See tank mix partner label	(0.125 to 0.25 lb a.i.) + See tank mix partner label		--
<b>Avalaire Clethodim 2 EC</b>  + Lactofen + Cloransulam-methyl	6 to 8 fl. oz. (0.09375 - 0.125 lb a.i.) + See tank mix partner label + See tank mix partner label	8 to 16 fl. oz. (0.125 to 0.25 lb a.i.) + See tank mix partner label + See tank mix partner label	1%	--
<b>Avalaire Clethodim 2 EC</b>  + Imazamox	6 to 8 fl. oz. (0.09375 - 0.125 lb a.i.) + See tank mix partner label	--	1%	--
<b>Avalaire Clethodim 2 EC</b>  + Lactofen + Imazamox	6 to 8 fl. oz. (0.09375 - 0.125 lb a.i.) + See tank mix partner label + See tank mix partner label	--	1%	--
<b>Avalaire Clethodim 2 EC</b>  + Chlorimuron ethyl + Thifensulfuron methyl	6 to 8 fl. oz. <sup>7</sup> (0.09375 - 0.125 lb a.i.) + See tank mix partner label	--	1 qt.	--
<b>Avalaire Clethodim 2 EC</b>  + Lactofen + Chlorimuron ethyl + Thifensulfuron methyl	6 to 8 fl. oz. <sup>7</sup> (0.09375 - 0.125 lb a.i.) + See tank mix partner label + See tank mix partner label	--	1 pt.	--
<b>Avalaire Clethodim 2 EC</b>  + Flumiclorac pentyl ester	6 to 8 fl. oz. (0.09375 - 0.125 lb a.i.) + See tank mix partner label	--	1 qt.	--
<b>Avalaire Clethodim 2 EC</b>  + Chloransulam-methyl + Flumetsulam	8 to 10 fl. oz. (0.125 to 0.156 lb a.i.) + See tank mix partner label	--	1%	--
<b>Avalaire Clethodim 2 EC</b>  + Cloransulam-methyl + Fomesafen	6 to 8 fl. oz. (0.09375 - 0.125 lb a.i.) + See tank mix partner label + See tank mix partner label	8 to 16 fl. oz. (0.125 to 0.25 lb a.i.) + See tank mix partner label + See tank mix partner label	1%	--

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

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

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

<sup>4</sup> The addition of 2.5 lb. of ammonium sulfate is required when **Avalaire Clethodim 2 EC** is tank mixed with glyphosate. If the glyphosate formulation has a standalone 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.

<sup>5</sup> The addition of 1 to 2 qts./A of liquid fertilizer (10-34-0, 28%N or 32%N) is advised when **Avalaire Clethodim 2 EC** is tank mixed With Imazethapyr, Flumiclorac pentyl ester, Bentazon + Acifluorfen, Cloransulam-methyl, Chlorimuron ethyl + Thifenusfuron methyl, Ammonium salt of imazamox, Chloransulam-methyl + Flumetsulam, Lactofen plus Chlorimuron ethyl, Lactofen plus Bentazon, Lactofen plus Imazethapyr, Lactofen plus Cloransulam-methyl, Lactofen plus Chlorimuron ethyl + Thifenusfuron methyl, and Lactofen plus Imazamox. 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.

<sup>6</sup> Refer to tank mix partner label for geographic and rotational restrictions.

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

**Table 10. REDUCED RATE AVALAIRE CLETHODIM 2 EC TANK MIXES WITH BROADLEAF HERBICIDES FOR SOYBEAN**

(Refer to table for reduced rate use in rapeseed subgroup 20A listed crops, dry shelled bean & pea, edible podded legume vegetables, flax, mustard seed, soybean, succulent shelled bean & pea and sugar beet directions for small annual grasses 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	GROUND	AIR
<b>Avalaire Clethodim 2 EC</b> + Cloransulam-methyl	6 to 8 fl. oz. (0.09375 - 0.125 lb a.i.) + See tank mix partner label	--	1%	1%
<b>Avalaire Clethodim 2 EC</b> + Ammonium salt of imazethapyr	6 to 8 fl. oz. (0.09375 - 0.125 lb a.i.) + See tank mix partner label	--	1%	1%

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

<sup>2</sup> Annual grasses and sizes controlled with these tank mixtures are those that are identified in the **DIRECTIONS FOR REDUCED RATE TO CONTROL SMALL ANNUAL GRASSES** table.

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

<sup>4</sup> The addition of 1 to 2 qts./A of liquid fertilizer (10-34-0, 28%N, or 32%N) is required when **Avalaire Clethodim 2 EC** is tank mixed at reduced rates. 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.

### PEANUT (INCLUDING PERENNIAL)

**Table 11. AVALAIRE CLETHODIM 2 EC TANK MIXES WITH BROADLEAF HERBICIDES FOR PEANUT (INCLUDING PERENNIAL)**

(Refer to the 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	GROUND	AIR
<b>Avalaire Clethodim 2 EC</b> + Bentazon	8 to 10 fl. oz. (0.125 to 0.156 lb a.i.) + See tank mix partner label	--	1%	1%
<b>Avalaire Clethodim 2 EC</b> + Acifluorfen	8 to 10 fl. oz. (0.125 to 0.156 lb a.i.) + See tank mix partner label	--	1%	1%

<b>Avalaire Clethodim 2 EC</b>	8 to 10 fl. oz. (0.125 to 0.156 lb a.i.)		1%	1%
+	+	--		
Bentazon + Acifluorfen	See tank mix partner label			

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

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

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

<b>DIRECTIONS FOR GRASS SUPPRESSION FOR HARVEST EFFICIENCY IN PEANUT (INCLUDING PERENNIAL) WITH AVALAIRE CLETHODIM 2 EC</b>			
<b>GRASS SPECIES</b>	<b>WEED STAGE</b>	<b>RATE FL. OZ./A (LB A.I./A)</b>	<b>HIGH RATE (LB A.I./A)</b>
Annual and perennial grasses that exceed height claimed for control on height charts <b>"DIRECTIONS FOR ANNUAL GRASSES"</b> & <b>"DIRECTIONS FOR PERENNIAL GRASSES"</b>	Up to and including grasses in the seed head stage	<b>16 (0.25)</b>	<b>32 (0.5)</b>
<b>DO NOT</b> apply as part of a tank mix when applying <b>Avalaire Clethodim 2 EC</b> for grass suppression. Add a crop oil concentrate at 1 qt./A by ground to the finished spray volume.			

### SUGAR BEET

**Table 12. AVALAIRE CLETHODIM 2 EC TANK MIXED WITH CLOPYRALID APPLIED TO SUGAR BEET (Refer to the direction tables above for specific grasses and growth stages)**

<b>PRODUCT<sup>2</sup></b>	<b>APPLICATION RATES/ACRE<sup>1</sup></b>		<b>CROP OIL CONCENTRATE<sup>3</sup> V/V</b>	
	<b>ANNUAL GRASSES</b>	<b>PERENNIAL GRASSES</b>	<b>GROUND</b>	<b>AIR</b>
<b>Avalaire Clethodim 2 EC</b>	6 to 8 fl. oz./A (0.09375 - 0.125 lb a.i./A)	8 to 16 fl. oz./A (0.125 to 0.25 lb a.i./A)	1%	1%
+	See tank mix partner label for rates.			
Clopyralid				

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

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

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

**Table 13. AVALAIRE CLETHODIM 2 EC TANK MIXED WITH BETAMIX<sup>®</sup> or BETANEX<sup>®</sup> APPLIED TO SUGAR BEET**

<b>PRODUCT<sup>1</sup></b>	<b>WEEDS CONTROLLED</b>		<b>WEED HEIGHT (inches)</b>	<b>APPLICATION RATE/ACRE<sup>2</sup></b>
	<b>COMMON NAME</b>	<b>SCIENTIFIC NAME</b>		
<b>Avalaire Clethodim 2 EC<sup>3</sup></b>	Barnyardgrass	<i>Echinochloa crus-galli</i>	1 to 3	8 fl. oz. (0.125 lb a.i.)
+	Foxtail	<i>Setaria</i> spp.	1 to 3	
	Foxtail Millet	<i>Setaria italic</i>	1 to 3	
	Wild Oat	<i>Avena fatua</i>	1 to 3	
	Wild Proso Millet	<i>Panicum miliaceum</i>	1 to 3	
Phenmedipham + Desmedipham or Desmedipham			See tank mix partner label for rates to control broadleaf weeds. No additives are advised in the tank mix.	
			See tank mix partner label for rates to control broadleaf weeds. No additives are advised in the tank mix.	

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

<sup>2</sup> **DO NOT** use crop oil concentrate. No additives are advised in the tank mix. If grass regrowth occurs or an additional flush of new grass emerges, make a second application of **Avalaire Clethodim 2 EC** alone (without a tank mix herbicide), according to the appropriate size and rate directions.

<sup>3</sup> If grass regrowth occurs or an additional flush of new grass emerges, make a second application of **Avalaire Clethodim 2 EC** at full label rate with appropriate rate of crop oil concentrate.

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

PRODUCT <sup>2</sup>	APPLICATION RATES/ACRE <sup>1</sup>		METHYLATED SEED OIL <sup>2</sup> (V/V)	
	ANNUAL GRASSES	GRASSES CONTROLLED (inches)	GROUND	AIR
<b>Avalaire Clethodim 2 EC</b>  + Phenmedipham + Desmedipham or Desmedipham	2 to 3 fl. oz. (0.031 to 0.0468 lb a.i.) + See tank mix partner label <sup>3</sup> or See tank mix partner label <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%

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

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

<sup>3</sup> Use 8 fl. oz./A (0.125 lb a.i./A) rate when sugar beet are in the cotyledon to 4 leaf stage. Rate can be increased up to 12 fl. oz./A (0.1875 lb a.i./A) when the smallest sugar beet plants in the field are in the 4 true leaf stage or larger.

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

##### **Product Information**

Multiple micro-rate applications of **Avalaire Clethodim 2 EC** in tank mixtures with reduced rates of Desmedipham or Phenmedipham + Desmedipham and methylated seed oils may be applied by air or ground equipment to sugar beet to control early germinating annual grasses listed above. The rate of Desmedipham or Phenmedipham + Desmedipham must not exceed 0.12 lb. ai/A (broadcast application) when in combination with these spray adjuvants. Note that maximum rate allowed varies depending on crop growth stage. The use of wetting agents or spray adjuvants with conventional rates (0.73 to 1.22 lb. ai./A) or multiple low rate (0.24 to 0.73 lb. ai./A) applications of Desmedipham or Phenmedipham + Desmedipham is prohibited on the tank mix partner master label. Favorable climatic conditions (good conditions for plant growth and development) are essential for adequate weed control. All use precautions and restrictions on the tank mix partner master labels must be followed.

##### **Directions for Using Micro-Rate Multiple Applications of Avalaire Clethodim 2 EC Tank Mixes**

Apply **Avalaire Clethodim 2 EC** in broadcast applications only at a rate of 2 to 3 fl. oz./A (0.031 to 0.0468 lb a.i./A) in tank mixture with either Desmedipham or Phenmedipham + Desmedipham following the directions for use on the tank mix partner label. A minimum of three sequential applications of 2 fl. oz./A (0.031 lb a.i./A) or a minimum of 2 sequential applications of 3 fl. oz./A (0.0468 lb a.i./A) must be utilized for **Avalaire Clethodim 2 EC** tank mixtures. A minimum of 3 sequential applications of Desmedipham or Phenmedipham + Desmedipham must be used. Accurate timing is essential; make initial application immediately after weeds emerge, and make repeat applications on 5 to 7 day intervals. If weed control is not adequate due to climatic conditions, spray coverage or other factors, return to conventional application rates of **Avalaire Clethodim 2 EC** (6 to 8 fl. oz./A) (0.09375 - 0.125 lb a.i./A) and add rates of Desmedipham or Phenmedipham + Desmedipham as directed on their label. When using conventional rates of Desmedipham or Phenmedipham + Desmedipham in tank mixtures with **Avalaire Clethodim 2 EC**, a spray adjuvant is not advised.

##### **Use Precautions for Micro-Rate Applications: (See Avalaire Clethodim 2 EC, Desmedipham or Phenmedipham + Desmedipham master label for further use precautions.)**

Not all weeds will be adequately controlled, even with favorable climatic conditions. Conventional rates of **Avalaire Clethodim 2 EC**, Desmedipham or Phenmedipham + Desmedipham and/or hand labor may be required if multiple micro-rate applications do not adequately control weeds. Plugging of spray nozzles may be encountered due to the potential for formation of a precipitate in the spray solution that is often associated with micro-rate applications. To the extent consistent with applicable law, **Avalaire, LLC** will not be responsible for any nozzle plugging that may occur with the use of multiple micro-rate applications. Methylated seed oils

must not be added if the Desmedipham or Phenmedipham + Desmedipham exceeds 0.12 lb. ai/A broadcast, as the addition of methylated seed oils could increase the possibility of crop injury at dosage rates greater than 0.12 lb. ai/A.

**GROUND APPLICATION**

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

**AERIAL APPLICATION**

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

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

PRODUCT <sup>2</sup>	APPLICATION RATES/ACRE <sup>1</sup>		CROP OIL CONCENTRATE <sup>3</sup> V/V
	ANNUAL GRASSES	PERENNIAL GRASSES	
<b>Avalaire Clethodim 2 EC</b> + Tetraconazole	6 to 8 fl. oz./A (0.09375 - 0.125 lb a.i./A) + See tank mix partner label	8 to 16 fl. oz./A (0.125 to 0.25 lb a.i./A) + See tank mix partner label	1%

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

<sup>2</sup> Refer to **Avalaire Clethodim 2 EC** and fungicide label for rates and weeds and diseases controlled.

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

**Table 16. TANK MIX APPLICATION OF AVALAIRE CLETHODIM 2 EC AND INSECTICIDES FOR CONTROL OF GRASS WEEDS AND INSECTS IN ALFALFA, COTTON, PEPPERMINT AND SPEARMINT TOPS, PEANUT (INCLUDING PERENNIAL), SOYBEAN AND SUNFLOWER**

PRODUCT <sup>2</sup>	APPLICATION RATES/ACRE <sup>1</sup>		CROP OIL CONCENTRATE (V/V) <sup>3</sup>	CROP					
	ANNUAL GRASSES	PERENNIAL GRASSES		Alfalfa <sup>4</sup>	Cotton	Peppermint & Spearmint Tops <sup>4,5</sup>	Peanut	Soybean	Sunflower
<b>Avalaire Clethodim 2 EC</b> + Acephate	6 to 8 fl. oz. (0.09375 - 0.125 lb a.i.) + See tank mix partner label	8 to 16 fl. oz. (0.125 to 0.25 lb a.i.) + See tank mix partner label	1%		X	X	X		
<b>Avalaire Clethodim 2 EC</b> + Acephate <sup>6</sup>	6 to 8 fl. oz. (0.09375 - 0.125 lb a.i.) + See tank mix partner label	8 to 16 fl. oz. (0.125 to 0.25 lb a.i.) + See tank mix partner label	1%		X	X	X	X	
<b>Avalaire Clethodim 2 EC</b> + Fenpropathrin	6 to 8 fl. oz. (0.09375 - 0.125 lb a.i.) + See tank mix partner label	8 to 16 fl. oz. (0.125 to 0.25 lb a.i.) + See tank mix partner label	1%		X		X		
<b>Avalaire Clethodim 2 EC</b> + Esfenvalerate	6 to 8 fl. oz. (0.09375 - 0.125 lb a.i.) + See tank mix partner label	8 to 16 fl. oz. (0.125 to 0.25 lb a.i.) + See tank mix partner label	1%						X
<b>Avalaire Clethodim 2 EC</b> + lamda-Cyhalothrin	6 to 8 fl. oz. <sup>7</sup> (0.09375 - 0.125 lb a.i.) + See tank mix partner label	8 to 16 fl. oz. <sup>7</sup> (0.125 to 0.25 lb a.i.) + See tank mix partner label	1%						X
<b>Avalaire Clethodim 2 EC</b> + lamda-Cyhalothrin	10 to 16 fl. oz. <sup>7</sup> (0.156 to 0.25 lb a.i.) + See tank mix partner label	10 to 16 fl. oz. (0.156 to 0.25 lb a.i.) + See tank mix partner label	1%	X					

PRODUCT <sup>2</sup>	APPLICATION RATES/ACRE <sup>1</sup>		CROP OIL CONCENTRATE (V/V) <sup>3</sup>	CROP					
	ANNUAL GRASSES	PERENNIAL GRASSES		Alfalfa <sup>4</sup>	Cotton	Peppermint & Spearmint Tops <sup>4,5</sup>	Peanut	Soybean	Sunflower
Avalaire Clethodim 2 EC + Beta-cyfluthrin	10 to 16 fl. oz. <sup>7</sup> (0.156 to 0.25 lb a.i.) + See tank mix partner label	10 to 16 fl. oz. (0.156 to 0.25 lb a.i.) + See tank mix partner label	1%	X					
Avalaire Clethodim 2 EC + Dimethoate	10 to 16 fl. oz. <sup>7</sup> (0.156 to 0.25 lb a.i.) + See tank mix partner label	10 to 16 fl. oz. (0.156 to 0.25 lb a.i.) + See tank mix partner label	1%	X					
Avalaire Clethodim 2 EC + Chlorpyrifos	10 to 16 fl. oz. <sup>7</sup> (0.156 to 0.25 lb a.i.) + See tank mix partner label	10 to 16 fl. oz. (0.156 to 0.25 lb a.i.) + See tank mix partner label	1 to 2 pt. <sup>8</sup>	X					
Avalaire Clethodim 2 EC + Permethrin	10 to 16 fl. oz. <sup>7</sup> (0.156 to 0.25 lb a.i.) + See tank mix partner label	10 to 16 fl. oz. (0.156 to 0.25 lb a.i.) + See tank mix partner label	1%	X					

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

<sup>2</sup> Refer to **Avalaire Clethodim 2 EC** and insecticide label for rates and weeds and insects controlled.

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

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

<sup>5</sup> The **Avalaire Clethodim 2 EC** rate must be 6 to 8 fl. oz./A (0.09375 - 0.125 lb a.i./A) for annual grass control in baby peppermint and spearmint tops, minimum of 8 fl. oz./A (0.125 lb a.i./A) for annual grass control in established peppermint and spearmint tops and 8 to 16 fl. oz./A for (0.125 to 0.25 lb a.i./A) perennial grass control. Crop oil concentrate must be added at the rate of 1.0 to 2.0 pts./A.

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

<sup>7</sup> The **Avalaire Clethodim 2 EC** rate must be 6 to 8 fl. oz./A (0.09375 - 0.125 lb a.i./A) for annual grass control in seedling alfalfa.

<sup>8</sup> For the **Avalaire Clethodim 2 EC** 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.

**Table 17. DIRECTIONS FOR ROUNDUP READY VOLUNTEER CORN CONTROL IN ROUNDUP READY SOYBEAN WITH AVALAIRE CLETHODIM 2 EC TANK MIX**

Roundup Ready Volunteer Corn Height (inches)	Avalaire Clethodim 2 EC Rate fl. oz./A (lb a.i./A)	Glyphosate <sup>1</sup> rate for formulations <u>with</u> built in adjuvant	Adjuvant
<12	4 (0.0625)	1.0 to 2.0 lb. ai/A (Approximately equivalent to 22 to 44 fl. oz./A of Roundup Weather Max.)	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 (0.078)		
18 to 24	6 (0.09375)		

Roundup Ready Volunteer Corn Height (inches)	Avalaire Clethodim 2 EC Rate fl. oz./A	Glyphosate <sup>1</sup> rate for formulations <u>without</u> built in adjuvant	Adjuvant
<12	4 (0.0625)	Up to 2.0 lb. ai/A (Approximately equivalent to 36 to 44 fl. oz./A of Roundup original.)	Crop oil concentrate @ 1 pt./A plus ammonium sulfate @ 8.5 to 17 lbs. per 100 gals. of carrier.
12 to 18	5 (0.078)		
18 to 24	6 (0.09375)		

<sup>1</sup> Glyphosate formulation must be labeled for use on Roundup Ready soybean.



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

- Apply only to actively growing grass and broadleaf weeds at 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 **Avalaire Clethodim 2 EC**, as specified in the respective size and rate tables.
- This tank mix may be applied postemergence to ROUNDUP READY soybean up through the full flowering stage. Avoid contact with foliage, green stems, or fruit crops, or any desirable plants and trees, other than soybean with the ROUNDUP READY gene as severe injury or destruction will result.

**Restrictions**

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

<b>CONIFER TREES</b>			
<b>SPECIFIC RESTRICTIONS AND DIRECTIONS FOR AVALAIRE CLETHODIM 2 EC</b>			
<b>CROPS</b>		<b>Use Rate Per Acre</b>	<b>Special Use Instructions</b>
<b>COMMON NAME</b>	<b>SCIENTIFIC NAME</b>	6-16 fl. oz. (0.09375 - 0.25 lb a.i.)	<b>Avalaire Clethodim 2 EC</b> can be used to control labeled grasses in Christmas tree farms, conifer nurseries, and conifer plantations (but not in forests).  <b>RESTRICTIONS:</b> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 16 fl. oz./A (0.25 lb a.i./A) in a single application.</li> <li>• <b>DO NOT</b> make more than 2 applications at per acre per year.</li> <li>• <b>DO NOT</b> apply more than 32 fl oz (0.500 lb ai) per acre per year.</li> </ul>
Arborvitae, American	<i>Thuja occidentalis</i>		
Cedars	<i>Cedrus spp.</i>		
Cypress	<i>Taxodium spp.</i>		
Fir, Douglas	<i>Pseudotsuga menziesii</i>		
Firs	<i>Abies spp.</i>		
Hemlock, Canadian/Eastern	<i>Tsuga Canadensis</i>		
Hemlock, Western	<i>Tsuga herterophylla</i>		
Pines	<i>Pinus spp.</i>		
Spruces	<i>Picea spp.</i>		
Yew	<i>Taxus spp.</i>		

**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.

<b>DIRECTIONS FOR GRASS SUPPRESSION IN NON-CROP AREAS</b>			
<b>WITH AVALAIRE CLETHODIM 2 EC</b>			
<b>GRASS SPECIES</b>	<b>WEED STAGE</b>	<b>RATE FL. OZ./A (LB A.I./A)</b>	<b>HIGH RATE (LB A.I./A)</b>
Annual and perennial grasses that exceed height claimed for control on height chart above.	Up to and including grasses in the seed head stage	12 (0.1875)	16 (0.25)
<b>DO NOT</b> apply as part of a tank mix when applying <b>Avalaire Clethodim 2 EC</b> for grass suppression. Add a crop oil concentrate at 1 qt./A by ground to the finished spray volume.			



**Restrictions**

- **DO NOT** plant any crop for 30 days after application unless clethodim is registered for use in that crop.
- **DO NOT** apply more than 16 fl oz (0.250 lb ai) per acre per application.
- **DO NOT** make more than 2 applications per acre per year.
- **DO NOT** apply more than 32 fl oz (0.50 lb ai) per acre per year.
- For repeat applications make on a minimum of a 14 day interval.

**FALLOW LAND**

**DIRECTIONS FOR USE**

**Avalaire Clethodim 2 EC** 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 **Avalaire Clethodim 2 EC** at 6 to 8 fl. oz./A (0.09375 - 0.125 lb a.i./A) or annual grasses and 8 to 16 fl. oz./A (0.125 to 0.25 lb a.i./A) for perennial grasses. When both grass and broadleaf weeds are the target pest, **Avalaire Clethodim 2 EC** may be tank mixed with 2,4-D ester or Sodium salt of dicamba for broad spectrum control. When both annual and perennial grasses occur in the same field, use a minimum of 8 fl. oz./A **Avalaire Clethodim 2 EC** (0.125 lb a.i./A) rate.

- Use a minimum spray volume of 5 gals./A for aerial applications and 15 gals./A for ground applications.
- Apply only to actively growing grasses when the first grass reaches the specified weed height as specified by the Directions for Annual and Perennial Grasses section of this label.
- Annual grasses that emerge after the **Avalaire Clethodim 2 EC** application will not be controlled, and a second application may be necessary.
- The control of perennial grasses may require more than 1 application in non-tilled areas.

**Restrictions**

- **DO NOT** 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 2 weeks prior to or after the **Avalaire Clethodim 2 EC** application.

**Table 18. AVALAIRE CLETHODIM 2 EC IN TANK MIXES TO CONTROL ANNUAL AND PERENNIAL GRASSES IN FALLOW LAND**

PRODUCT	APPLICATION RATES/ACRE <sup>1</sup>		CROP OIL CONCENTRATE <sup>2</sup> V/V	
	ANNUAL GRASSES	PERENNIAL GRASSES	GROUND	AIR
<b>Avalaire Clethodim 2 EC</b>  + 2,4-D ester or Sodium salt of dicamba	6 to 8 fl. oz./A (0.09375 - 0.125 lb a.i./A)  + 0.5 lb./A or See tank mix partner label	8 to 16 fl. oz./A (0.125 to 0.25 lb a.i./A)	1%	1%

<sup>1</sup> Refer to **Avalaire Clethodim 2 EC** label for weed height and species control. Review Sodium salt of dicamba and 2,4-D labels for crop restrictions, use rates and weeds controlled.

<sup>2</sup> 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.

**TABLE 19. AVALAIRE CLETHODIM 2 EC 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	
<b>Avalaire Clethodim 2 EC</b>	10 to 12 fl. oz./A (0.156 to 0.1875 lb a.i./A)	Tall Fescue	<i>Festuca arundinacea</i>	4 to 6 inches tall (40 to 60% green-up)

Adjuvant: **Avalaire Clethodim 2 EC** must be applied with crop oil concentrate at 1 qt./A, plus a spray grade ammonium sulfate at 2.5 to 4 lbs./A. Advised Mixing order: Thoroughly mix spray grade ammonium sulfate in water, add **Avalaire Clethodim 2 EC**, then add crop oil concentrate.

### SPECIAL APPLICATION INSTRUCTIONS

Burn or mow fields a minimum of 3 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 gals. of water per acre at a spray pressure of 40 to 60 PSI at the nozzle. Apply using flat fan or hollow cone nozzles.

Apply only to fields that have warm-season grasses established for 2 years. Applications of **Avalaire Clethodim 2 EC** to emerged warm-season grasses may cause injury.

NOTE: **Avalaire Clethodim 2 EC** 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 2 weeks after the **Avalaire Clethodim 2 EC** 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.

**TABLE 20. AVALAIRE CLETHODIM 2 EC FOR THE SUPPRESSION OF TALL FESCUE SEED-HEADS IN NON-PRODUCING AGRICULTURAL AREAS**

PRODUCT	PRODUCT RATE	SUPPRESSION	APPLICATION TIMING
<b>Avalaire Clethodim 2 EC</b>	1 ½ to 2 fl. oz./A (0.023 to 0.031 lb a.i./A)	Tall Fescue Seed-Heads ( <i>Festuca arundinacea</i> )	(50 to 90% Tall Fescue green-up)
ADJUVANT: <b>Avalaire Clethodim 2 EC</b> must be applied with crop oil concentrate at 1 qt./A, plus a spray grade ammonium sulfate at 2.5 to 4 lb./A. Advised Mixing order: Thoroughly mix spray grade ammonium sulfate in water, add <b>Avalaire Clethodim 2 EC</b> , then add crop oil concentrate.			

### SPECIAL APPLICATION INSTRUCTIONS

- Apply at 50 to 90% tall fescue green-up.
- Use the higher **Avalaire Clethodim 2 EC** 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 maybe added to this tank mix for broadleaf control (see 2,4-D ester label for weeds controlled).

#### Restrictions

- **DO NOT** mow area for two weeks after the **Avalaire Clethodim 2 EC** 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.

NON-BEARING FRUIT AND NUT CROPS			
SPECIFIC RESTRICTIONS AND DIRECTIONS FOR AVALAIRE CLETHODIM 2 EC			
CROPS		Use Rate Per Acre	Special Use Instructions
COMMON NAME	SCIENTIFIC NAME	6-8 fl. oz. (0.09375 - 0.125 lb a.i.)	Non-bearing fruit and nut crops are plants which will not bear fruit or nuts for at least one year following <b>Avalaire Clethodim 2 EC</b> application.  Add a non-ionic surfactant containing at least 80% active ingredient at the rate of 1 pt. per
Apples	<i>Malus</i> spp.		
Berries	<i>Vaccinium</i> spp.		
	<i>Rubus</i> spp.		
Cherry, Sweet	<i>Prunus avium</i>		
Citrus fruits	<i>Citrus</i> spp.		
Grapes	<i>Vitis</i> spp.		
Olives	<i>Olea</i> spp.		

Peach	<i>Prunus persica</i>		<p>50 gals. (0.25% v/v).</p> <p>Use of crop oil is not advised since it may injure flowers and foliage. See Special Use Instructions.</p> <p>Sugar maples cannot be tapped for syrup within one year of application of this product.</p> <p>For repeat applications make on a minimum of a 14-day interval.</p> <p>Crop injury to non-bearing fruit and nut crops can occur if <b>Avalaire Clethodim 2 EC</b> is improperly applied. <b>Avalaire Clethodim 2 EC</b> 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.</p> <p><b>RESTRICTIONS:</b></p> <ul style="list-style-type: none"> <li>• <b>Avalaire Clethodim 2 EC</b> must not be applied to non-bearing fruit or nut crops which are grown for root stock.</li> <li>• If <b>Avalaire Clethodim 2 EC</b> is applied as a spot treatment to non-bearing fruit and nut crops, <b>DO NOT</b> exceed the maximum rate allowed on a “per acre” basis.</li> <li>• <b>DO NOT</b> apply more than 8 fl. oz./A (0.125 lb a.i./A) in a single application to non-bearing fruit and nut crops.</li> <li>• <b>DO NOT</b> make more than 4 applications per acre per year.</li> <li>• <b>DO NOT</b> apply more than 32 fl oz (0.500 lb ai) per acre per year.</li> </ul>
Pears	<i>Pyrus communis</i>		
Prunes	<i>Prunus spp.</i>		
Stone Fruits	<i>Prunus spp.</i>		
Strawberries	<i>Fragaria spp.</i>		
Tree Nuts			
Almond	<i>Prunus triloba</i>		
Filbert	<i>Corylus illinoensis</i>		
Pistachio	<i>Pistacia vera</i>		
Walnut	<i>Juglans spp.</i>		

## DIRECTIONS FOR USE IN ORNAMENTALS

Use Rate Per Acre	Special Use Instructions
	<p>For ornamental plant uses, <b>Avalaire Clethodim 2 EC</b> can be used to control labeled grass weeds in greenhouses, lath houses, shadehouses, and around outdoor ornamentals, including nurseries, parks, roadside plantings, and structure landscapes.</p> <p>Add a non-ionic surfactant containing at least 80% active ingredient at the rate of 1 pt. per 50 gals. (0.25% v/v).</p> <p>Use of crop oil concentrate is not advised since it may injure flowers and foliage.</p> <p>For repeat applications make on a minimum of a 14-day interval.</p> <p><b>RESTRICTIONS:</b></p> <ul style="list-style-type: none"> <li>• <b>Avalaire Clethodim 2 EC</b> must not be applied to non-bearing fruit or nut crops which are grown for root stock.</li> <li>• <b>DO NOT</b> apply more than 16 fl. oz./A (0.25 lb a.i./A) in a single application.</li> <li>• <b>DO NOT</b> make more than 2 applications at per acre per year.</li> <li>• <b>DO NOT</b> apply more than 32 fl oz (0.500 lb ai) per acre per year.</li> </ul>

### IMPORTANT

**Avalaire Clethodim 2 EC** successfully controls weeds in newly transplanted and established non-grassy ornamentals. Plant resistance to **Avalaire Clethodim 2 EC** 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 **Avalaire Clethodim 2 EC** have investigated the safety factor to ornamental plants not listed on the label.

The following plants have shown a resistance for **Avalaire Clethodim 2 EC** applications:

### ORNAMENTAL TREES

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

**GROUND COVERS**

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

**GARDEN FLOWERS AND PLANTS**

<b>COMMON NAME</b>	<b>SCIENTIFIC NAME</b>
Ageratum	<i>Ageratum</i> spp.
Alyssum*, Sweet	<i>Lobularia maritima</i>
Asparagus Fern	<i>Asparagus setaceus</i>
Bleeding Heart	<i>Dicentra spectabilis</i>
Cast Iron Plant	<i>Aspidistra elatior</i>
Chrysanthemum	<i>Chrysanthemum</i> spp.
Cinquefoil	<i>Potentilla</i> spp.
Coleus	<i>Coleus</i> spp.
Coralbells	<i>Heuchera sanguinea</i>
Cranesbill	<i>Geranium</i> spp.
Dahlia	<i>Dahlia</i> spp.
Daisy, Trailing African	<i>Osteospermum fruticosum</i>
Daylily	<i>Hemerocallis</i> spp.
Dusty Miller	<i>Senecio cineraria</i>
Euonymus	<i>Euonymus</i> spp.
Gazania	<i>Gazania</i> spp.
Geranium, House	<i>Pelargonium hortorum</i>
Heather, False	<i>Cuphea hyssopifolia</i>
Hosta	<i>Hosta fortunei</i>
Iris	<i>Iris</i> spp.
Jasmine Tobacco	<i>Nicotiana alata</i>
Loosestrife	<i>Lythrum salicaria</i>
Marigold	<i>Tagetes</i> spp.
Partridge berry	<i>Mitchella repens</i>
Petunia*	<i>Petunia hybrida</i>
Phlox	<i>Phlox</i> spp.
Pinks	<i>Dianthus</i> spp.
Portulaca	<i>Portulaca grandiflora</i>
Salvia	<i>Salvia</i> spp.
Saxifrage	<i>Saxifraga</i> spp.
Sedum	<i>Sedum</i> spp.
Selloum	<i>Philodendron selloum</i>
Snapdragon*	<i>Antirrhinum majus</i>
Sweet Flag	<i>Acorus gramineus</i>
Tickseed	<i>Coreopsis grandiflora</i>
Touch-Me-Not	<i>Impatiens</i> spp.
Verbena	<i>Verbena</i> spp.
Violet	<i>Viola</i> spp.
Yarrow, Common	<i>Achillea millefolium</i>
Zinnia	<i>Zinnia elegans</i>

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

#### SHRUBS

COMMON NAME	SCIENTIFIC NAME
Abelia	<i>Abelia</i> spp.
Anise, Purple	<i>Illicium floridanum</i>
Aucuba	<i>Aucuba</i> spp.
Azalea*	<i>Rhododendron</i> spp.
Bamboo	<i>Bambusa</i> spp.
Barberry, Japanese	<i>Berberis thunbergii</i>
Barberry, Magellan	<i>Berberis buxifolia</i>
Bayberry	<i>Myrica pensylvanica</i>
Bottlebrush	<i>Callistemon citrinus</i>
Boxwood	<i>Buxus sempervirens</i>
Camellia	<i>Camellia japonica</i>
Candytuft	<i>Iberis sempervirens</i>
Cleyera	<i>Cleyera japonica</i>
Coralberry	<i>Ardisia crenata</i>
Crape Myrtle	<i>Lagerstroemia indica</i>
Coyote Brush	<i>Baccharis pilularis</i>
Fig, Creeping	<i>Ficus pumila</i>
Gardenia	<i>Gardenia</i> spp.
Holly	<i>Ilex</i> spp.
Honeysuckle	<i>Lonicera pileata</i>
Indian Hawthorn	<i>Raphiolepis indica</i>
Jasmine	<i>Jasminum</i> spp.
Jasmine, Asiatic	<i>Trachelospermum asiaticum</i>
Jasmine, Star	<i>Trachelospermum jasminoides</i>
Juniper	<i>Juniperus</i> spp.
Lantana	<i>Lantana</i> spp.
Nandina* Bamboo, Heavenly	<i>Nandinia domestica</i>
Oleander, Common	<i>Nerium oleander</i>
Oregon Grape	<i>Mahonia aquifolium</i>
Photinia	<i>Photinia</i> spp.
Pittosporum	<i>Pittosporum</i> spp.
Podocarpus	<i>Podocarpus</i> spp.
Privet	<i>Ligustrum</i> spp.
Pyracantha	<i>Pyracantha</i> spp.
Rhododendron	<i>Rhododendron</i> spp.
Rose	<i>Rosa</i> spp.
Sweet Olive	<i>Osmanthus fragrans</i>
Viburnum	<i>Viburnum tinus</i>
Wisteria	<i>Wisteria</i> spp.
Yellow Sage/Shrub Verbena	<i>Lantana camara</i>

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

**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.

<b>GRASS SPECIES</b>	<b>SCIENTIFIC NAME</b>	<b>WEED* HEIGHT INCHES</b>	<b>RATE FL. OZ./ACRE<sup>1</sup> (LB A.I./ACRE)</b>	<b>HIGH RATE<sup>2</sup> (LB A.I./ACRE)</b>
Barnyardgrass	<i>Echinochloa crus-galli</i>	2 to 8	8 (0.125)	16 (0.25)
Broadleaf Signalgrass	<i>Brachiaria platyphylla</i>	2 to 6	8 (0.125)	16 (0.25)
Brome				
California	<i>Bromus carinatus</i>	2 to 6	8 (0.125)	16 (0.25)
Cheatgrass	<i>Bromus secalinus</i>	2 to 6	8 (0.125)	16 (0.25)
Downy	<i>Bromus tectorum</i>	2 to 6	8 (0.125)	16 (0.25)
Ripgut	<i>Bromus diandrus</i>	2 to 6	8 (0.125)	16 (0.25)
Canarygrass	<i>Phalaris canariensis</i>	1 to 4	8 (0.125)	16 (0.25)
Crabgrass				
Hairy	<i>Digitaria adscendens</i>	2 to 6**	8 (0.125)	16 (0.25)
Large	<i>Digitaria sanguinalis</i>	2 to 6**	8 (0.125)	16 (0.25)
Smooth	<i>Digitaria ischaemum</i>	2 to 6**	8 (0.125)	16 (0.25)
Southern	<i>Digitaria ciliaris</i>	2 to 6**	8 (0.125)	16 (0.25)
Crowfootgrass	<i>Dactyloctenium aegyptium</i>	2 to 6**	8 (0.125)	16 (0.25)
Fall Panicum	<i>Panicum dichotomiflorum</i>	2 to 8	8 (0.125)	16 (0.25)
Field Sandbur	<i>Cenchrus incertus</i>	2 to 6	8 (0.125)	16 (0.25)
Foxtail				
Giant	<i>Setaria faberi</i>	2 to 12	8 (0.125)	16 (0.25)
Green	<i>Setaria viridis</i>	2 to 8	8 (0.125)	16 (0.25)
Yellow	<i>Setaria glauca</i>	2 to 8	8 (0.125)	16 (0.25)
Goosegrass	<i>Eleusine indica</i>	2 to 6**	8 (0.125)	16 (0.25)
Itchgrass	<i>Rottboellia exaltata</i>	2 to 6	8 (0.125)	16 (0.25)
Junglerice	<i>Echinochloa colona</i>	2 to 6	8 (0.125)	16 (0.25)
Lovegrass (Stinkgrass)	<i>Eragrostis cilianensis</i>	2 to 6	8 (0.125)	16 (0.25)
Rabbitsfootgrass	<i>Polypogon monspeliensis</i>	1 to 4	8 (0.125)	16 (0.25)
Red Rice	<i>Oryza sativa</i>	1 to 3	8 (0.125)	16 (0.25)
Ryegrass				
Hardy	<i>Lolium remotum</i>	2 to 6	8 (0.125)	16 (0.25)
Italian	<i>Lolium multiflorum</i>	2 to 6	8 (0.125)	16 (0.25)
Seedling Johnsongrass	<i>Sorghum halepense</i>	4 to 10	8 (0.125)	16 (0.25)
Shattercane	<i>Sorghum bicolor</i>	6 to 18	8 (0.125)	16 (0.25)
Southwestern Cupgrass	<i>Eriochloa gracilis</i>	2 to 6	8 (0.125)	16 (0.25)
Sprangletop				
Amazon	<i>Leptochloa panicoides</i>	2 to 6	8 (0.125)	16 (0.25)
Bearded	<i>Leptochloa fascicularis</i>	2 to 6	8 (0.125)	16 (0.25)
Mexican	<i>Leptochloa uninervia</i>	2 to 6	8 (0.125)	16 (0.25)
Red	<i>Leptochloa filiformis</i>	2 to 6	8 (0.125)	16 (0.25)
Texas Panicum	<i>Panicum texanum</i>	2 to 6	8 (0.125)	16 (0.25)
Volunteer Cereals	<i>Hordeum vulgare</i>	2 to 6	8 (0.125)	16 (0.25)
Barley	<i>Hordeum vulgare</i>	2 to 6	8 (0.125)	16 (0.25)
Oats	<i>Avena sativa</i>	2 to 6	8 (0.125)	16 (0.25)
Rye	<i>Secale cereale</i>	2 to 6	8 (0.125)	16 (0.25)
Wheat	<i>Triticum aestivum</i>	2 to 6	8 (0.125)	16 (0.25)
Volunteer Corn	<i>Zea mays</i>	4 to 12	8 (0.125)	16 (0.25)
Volunteer Corn	<i>Zea mays</i>	12 to 24	8 (0.125)	16 (0.25)
Volunteer Grain Sorghum	<i>Sorghum bicolor</i>	8 to 12	8 (0.125)	16 (0.25)
Wild Oats	<i>Avena fatua</i>	2 to 6	8 (0.125)	16 (0.25)
Wild Proso Millet	<i>Panicum miliaceum</i>	2 to 10	8 (0.125)	16 (0.25)
Witchgrass	<i>Panicum capillare</i>	2 to 8	8 (0.125)	16 (0.25)

Woolly Cupgrass	<i>Eriochloa villosa</i>	2 to 8	8 (0.125)	16 (0.25)
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\*Generally occurs between 3-leaf stage and tillering.

\*\*Length of lateral growth.

<sup>1</sup> 8 fl. oz./A=approximately 0.2 fl. oz./1000 sq. ft.

<sup>2</sup> 16 fl. oz./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).

#### DIRECTIONS FOR ANNUAL BLUEGRASS CONTROL WITH AVALAIRE CLETHODIM 2 EC IN ORNAMENTALS

GRASS SPECIES	WEED STAGE	RATE FL. OZ./A (LB A.I./ACRE)	HIGH RATE (LB A.I./ACRE)
Annual Bluegrass ( <i>Poa annua</i> )	To 4-leaf	6 (0.09375)	16 (0.25)

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 high rate under heavy grass pressure and/or 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).

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

#### RESTRICTIONS:

- **DO NOT** apply more than 16 fl. oz./A (0.25 lb a.i./A) in a single application.
- **DO NOT** make more than 2 applications at per acre per year.
- **DO NOT** apply more than 32 fl oz (0.500 lb ai) per acre per year.

#### DIRECTIONS FOR PERENNIAL GRASSES

- Apply only to actively growing grasses at specified weed heights.
- Apply when 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 a maximum height.

#### RESTRICTIONS:

- **DO NOT** apply more than 16 fl. oz./A (0.25 lb a.i./A) in a single application.
- **DO NOT** make more than 2 applications at per acre per year.
- **DO NOT** apply more than 32 fl oz (0.500 lb ai) per acre per year.
- For repeat applications make on a minimum of a 14-day interval.

GRASS SPECIES	WEED HEIGHT (Inches)	RATE FL. OZ./A <sup>1</sup>	HIGH RATE <sup>2</sup>
<b>Bermudagrass (<i>Cynodon dactylon</i>)</b>			
First Application	3 (or up to 6" runners)	8 (0.125)	16 (0.25)
Repeat Application(s) (if re-growth occurs)	3 (or up to 6" runners)	8 (0.125)	16 (0.25)
<b>Quackgrass (<i>Agropyron repens</i>)</b>			
First Application	4 to 8	8 (0.125)	16 (0.25)
Repeat Application(s) (if re-growth occurs)	4 to 8	8 (0.125)	16 (0.25)
<b>Rhizome Johsongrass (<i>Sorghum halepense</i>)</b>			
First Application	12 to 24	8 (0.125)	16 (0.25)
Repeat Application(s) (if re-growth occurs)	6 to 18	8 (0.125)	16 (0.25)
<b>Wirestem Muhly (<i>Muhlenbergia frondosa</i>)</b>			
First Application	4 to 8	8 (0.125)	16 (0.25)
Repeat Application(s) (if re-growth occurs)	4 to 8	8 (0.125)	16 (0.25)

<sup>1</sup> 8 fl. oz./A=approximately 0.2 fl. oz./1000 sq. ft.

<sup>2</sup> 16 fl. oz./A=approximately 0.4 fl. oz./1000 sq. ft.

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



## STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage or disposal or cleaning of equipment. Open dumping is prohibited.

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

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

**CONTAINER HANDLING: Nonrefillable container.** Do not reuse this container to hold materials other than pesticides or dilute pesticides (rinsate). After emptying and cleaning, it may be allowable to temporarily hold rinsate or other pesticide-related materials in the container. Contact your state regulatory agency to determine allowable practices in your state. Once cleaned, some agricultural plastic pesticide containers can be taken to a container collection site or picked up for recycling. To find the nearest site, contact your chemical dealer or manufacturer, or contact The Agricultural Container Recycling Council (ACRC) at [www.acrecycle.org](http://www.acrecycle.org). If not recycled, then puncture and dispose of in a sanitary landfill, or incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke. Triple rinse or pressure rinse container (or equivalent) promptly after emptying.

**[For packages up to 5 gallons: 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  $\frac{1}{4}$  full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. **Pressure rinse as follows:** Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.]

**[For packages greater than 5 gallons and less than 56 gallons: Triple rinse as follows:**

Empty the remaining contents into application equipment or a mix tank. Fill the container  $\frac{1}{4}$  full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. **Pressure rinse as follows:** Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.]

**[For packages greater than 56 gallons:** To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times.]

**[For refillable containers:** Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times.]

## LIMITATION OF WARRANTY AND LIABILITY

**IMPORTANT: READ BEFORE USE.** Read the entire Directions for Use, Conditions of Warranties and Limitations of Liability before using this product. If these terms and conditions are not acceptable, return the unopened product container at once. By using this product, user or buyer accepts the following Disclaimer of Warranties and Limitations of Liability. **CONDITIONS:** The directions for use of this product are believed to be adequate and must be followed carefully. However, it is impossible to eliminate all risks associated with the use of this product. Ineffectiveness, injury, and other unintended consequences may result because of such factors as manner of use or application (including misuse), the presence of other materials, weather conditions, and other unknown factors, all of which are beyond the control of AVALAIRE, LLC. All such risks shall be assumed by the user or buyer.

**DISCLAIMER OF WARRANTIES:** To the extent consistent with applicable law, AVALAIRE, LLC makes no other warranties, express or implied, of merchantability or of fitness for a particular purpose or otherwise, that extend beyond statements on this label. **LIMITATIONS OF LIABILITY:** To the extent consistent with applicable law, neither AVALAIRE, LLC the manufacturer, nor the Seller shall be liable for any indirect, special, incidental or consequential damages resulting from the use, handling, application, storage, or disposal of this product. To the extent consistent with applicable law, the exclusive remedy of the user or buyer for any and all losses, injuries or damages resulting from the use, handling, application, or storage of this product, whether in contract, warranty, tort, negligence, strict liability or otherwise, shall not exceed the purchase price paid.

**{LANGUAGE ON LABEL AFFIXED TO CONTAINER}**

CLETHODIM	GROUP	<b>1</b>	HERBICIDE
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**AVALAIRE CLETHODIM 2 EC**

[Alternate Brand Name: Sedara 2 EC]

**ACTIVE INGREDIENT:** (% by weight)

Clethodim: (E)-2-[1-[(3-chloro-2-propenyl)oxy]imino]propyl]-5-[2-(ethylthio)propyl]-3-hydroxy-2-cyclohexen-1-one.....26.4%

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

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

Contains petroleum distillate.

Contains 2.0 lbs. clethodim per gallon.

**KEEP OUT OF REACH OF CHILDREN**

**WARNING – AVISO**

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)

FIRST AID	
<b>If in eyes:</b>	<ul style="list-style-type: none"> <li>Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li> <li>Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>
<b>If on skin or clothing:</b>	<ul style="list-style-type: none"> <li>Take off contaminated clothing.</li> <li>Rinse skin immediately with plenty of water for 15-20 minutes.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>
<b>If swallowed:</b>	<ul style="list-style-type: none"> <li>Immediately call a poison control center or doctor.</li> <li>Do not induce vomiting unless told to do so by a poison control center or doctor.</li> <li>Do not give any liquid to the person.</li> <li>Do not give anything by mouth to an unconscious person.</li> </ul>
<b>If inhaled:</b>	<ul style="list-style-type: none"> <li>Move person to fresh air.</li> <li>If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible.</li> <li>Call a poison control center or doctor for 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 SafetyCall at <b>1-844-685-9173</b> for emergency medical treatment	
<b>NOTE TO PHYSICIAN:</b> Ingestion of this product or subsequent vomiting can result in aspiration of light hydrocarbon liquid, which can cause pneumonitis. Contains petroleum distillate.	

**For Chemical Emergency:**

**Spill, Leak, Fire, Exposure, or Accident, Call CHEMTREC Day or Night**  
**Within USA and Canada: 1-800-424-9300 or +1 703-527-3887 (collect calls accepted)**

**PRECAUTIONARY STATEMENTS**  
**HAZARDS TO HUMANS AND DOMESTIC ANIMALS**

**WARNING**

Causes substantial but temporary eye irritation. Avoid contact with skin. Do not get in eyes, on skin, or on clothing. Harmful if swallowed or inhaled. Avoid breathing vapors or spray mist. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Wash thoroughly with soap and

water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove and wash contaminated clothing before reuse.

**ENVIRONMENTAL HAZARDS:** Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not apply where runoff is likely to occur. Do not apply where weather conditions favor drift from areas treated. Do not contaminate water when disposing of equipment washwater or rinsate.

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

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

**Wild Rice:** Hays County, Texas

**PHYSICAL OR CHEMICAL HAZARDS: Combustible.** Do not use or store near heat or open flame.

**STORAGE AND DISPOSAL**

Do not contaminate water, food, or feed by storage or disposal or cleaning of equipment. Open dumping is prohibited.

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

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

**CONTAINER HANDLING: Nonrefillable container.** Do not reuse this container to hold materials other than pesticides or dilute pesticides (rinsate). After emptying and cleaning, it may be allowable to temporarily hold rinsate or other pesticide-related materials in the container. Contact your state regulatory agency to determine allowable practices in your state. Once cleaned, some agricultural plastic pesticide containers can be taken to a container collection site or picked up for recycling. To find the nearest site, contact your chemical dealer or manufacturer, or contact The Agricultural Container Recycling Council (ACRC) at [www.acrecycle.org](http://www.acrecycle.org). If not recycled, then puncture and dispose of in a sanitary landfill, or incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke. Triple rinse or pressure rinse container (or equivalent) promptly after emptying.

**[For packages up to 5 gallons: 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 with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. **Pressure rinse as follows:** Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.]

**[For packages greater than 5 gallons and less than 56 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. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. **Pressure rinse as follows:** Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.]

**[For packages greater than 56 gallons:** To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times.]

**[For refillable containers:** Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times.]

See inside label booklet for additional Precautionary Statements and Directions for Use.

Manufactured for:  
**Avalaire, LLC**  
1204 Village Market Place, #173  
Morrisville, NC 27560

**EPA Reg. No.: 93930-XX**  
**EPA Est. No.:** \_\_\_\_\_  
**NET WEIGHT:** \_\_\_\_\_