

## UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION

December 1, 2021

Arianna Shorey Regulatory Consultant Tide International, USA, Inc. c/o Pyxis Regulatory Consulting Inc. 4110 136<sup>th</sup> St. Ct. NW Gig Harbor, WA 98332

Subject: Registration Review Label Mitigation for CLETHODIM Product Name: TIDE CLETHODIM 2EC EPA Registration Number: 84229-21 Application Date: 02/14/2018 Decision Number: 580246

Dear Ms. Shorey:

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

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

A stamped copy of your labeling is enclosed for your records. This labeling supersedes all previously accepted labeling. You must submit one copy of the final printed labeling before you release the product for shipment with the new labeling. In accordance with 40 CFR 152.130(c), you may distribute or sell this product under the previously approved labeling for 12 months from the date of this letter. After 12 months, you may only distribute or sell this product if it bears this new revised labeling or subsequently Page 2 of 2 EPA Reg. No. 84229-21 Decision No. 580246

approved labeling. "To distribute or sell" is defined under FIFRA section 2(gg) and its implementing regulation at 40 CFR 152.3.

If you have any questions about this letter, please contact Srijana Shrestha by phone at 202-566-2329, or via email at <u>shrestha.srijana@epa.gov</u>.

Sincerely,

me aures

Julie Javier, Team Leader Risk Management and Implementation Branch 4 Pesticide Re-Evaluation Division Office of Pesticide Programs

Enclosure: Stamped Label

[Note to reviewer: [Text] in brackets indicates optional text].]

CLETHODIM GROUP

HERBICIDE

# **Tide Clethodim 2EC**

#### **ACTIVE INGREDIENT:**

By Wt.

1

Clethodim: (E)-2-[1-[[(3-chloro-2-propenyl)oxy]imino]propyl]-5-	
[2-(ethylthio)propyl]-3-hydroxy-2-cyclohexen-1-one	
OTHER INGREDIENTS:	
TOTAL:	

Contains petroleum distillates. 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						
If in eyes:	Hold eye open and rinse slowly and gently with water for 15-20 minutes.					
	• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing					
	eye.					
	Call a poison control center or doctor for treatment advice.					
If on skin or	Take off contaminated clothing.					
clothing:	<ul> <li>Rinse skin immediately with plenty of water for 15-20 minutes.</li> </ul>					
	Call a poison control center or doctor for treatment advice.					
If swallowed:	<ul> <li>Immediately call a poison control center or doctor.</li> </ul>					
	<ul> <li>Do not induce vomiting unless told to do so by a poison control center or doctor.</li> </ul>					
	• Do not give <b>any</b> liquid to the person.					
Do not give anything by mouth to an unconscious person.						
If inhaled:	Move person to fresh air.					
<ul> <li>If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible.</li> </ul>						
	<ul> <li>Call a poison control center or doctor for further treatment advice.</li> </ul>					
HOT LINE NUMBER						
Have the produce	ct container or label with you when calling a poison control center or doctor, or going for					
treatment. FOI	R MEDICAL Emergencies call CHEMTREC at telephone no. 1-800-424-9300. For					
PRODUCT USE	PRODUCT USE Information call telephone no. 949-679-3535.					
	NOTE TO PHYSICIAN					
Ingestion of this	product or subsequent vomiting can result in aspiration of light hydrocarbon liquid, which					

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

[See] [inside] [label] [booklet] [for] [First Aid] [,] [additional] [Precautionary Statements] [,] [and] [Directions for Use] [including] [Storage and Disposal] [instructions] [.]

#### EPA Reg. No. 84229-21

Manufactured for:

Tide International, USA, Inc. 21 Hubble Irvine, CA 92618

**Net Contents:** 



EPA Est. No.

Under the Federal Insecticide, Fungicide and Rodenticide Act as amended, for the pesticide registered under

EPA Reg. No. 84229-21

#### 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.

#### PERSONAL PROTECTIVE EQUIPMENT (PPE)

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

#### Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves such as barrier laminate or viton ≥ 14 mils
- Shoes plus socks
- Protective eyewear

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

#### Users should:

#### USER SAFETY RECOMMENDATIONS

- Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- 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, or to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not apply where runoff is likely to occur. Do not apply where weather conditions favor drift from areas treated. Do not contaminate water when disposing of equipment washwater or rinsate.

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

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

Wild Rice: Hays County, Texas.

#### NON-TARGET ORGANISM ADVISORY STATEMENT

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

#### PHYSICAL OR CHEMICAL HAZARDS

Do not use or store near heat or open flame.

#### DIRECTIONS FOR USE

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

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

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

#### AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

# Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 24 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil or water is:

- Coveralls
- Chemical-resistant gloves such as barrier laminate or viton ≥ 14 mils
- Shoes plus socks
- Protective eyewear

#### NON-AGRICULTURAL USE REQUIREMENTS

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

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

# THE FOLLOWING STATEMENT ON CHEMIGATION WILL BE USED ONLY IF A SUPPLEMENTAL LABEL IS CREATED.

#### CHEMIGATION

[Do not apply this product through any irrigation system unless the supplemental labeling on chemigation is followed. Refer to supplemental labeling entitled, "Application of Tide Clethodim 2EC Onions (dry bulbs and green) and Garlic by chemigation", for use directions for chemigation.]

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

### **PRODUCT INFORMATION**

Tide Clethodim 2EC is not for use on vegetable crops being grown for seed production unless specific use directions are provided.

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

Repeated use of Tide Clethodim 2EC (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 such as crop rotation, mechanical removal, and other classes of herbicides are not used from year to year.

Do not allow Tide Clethodim 2EC to come in contact with desirable grass crops such as corn, rich, sorghum, small grains, or turf, as these and other grass crops will be injured or killed. Minor leaf spotting may occur o treated plants under certain environmental conditions. New foliage is not affected.

#### **Control Symptoms**

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

### **APPLICATION INFORMATION**

#### Timing of Applications

Apply Tide Clethodim 2EC postemergence to actively growing grasses, according to rate table directions. Applications made to grass plants stressed by insufficient moisture, or hot or cold temperatures, or to grass plants exceeding listed growth stages may result in unsatisfactory control. Do not apply under these conditions.

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

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

ADDITION OF AD30VANT OR OROF OF CONCENTRATE		
CROP	ADJUVANT SPECIFICATIONS	
Alfalfa, Cotton, Dry Bean, Shelled Pea, Edible Podded Legume Vegetables, Peanuts (including perennial), Potato, Soybean, Succulent Bean & Pea 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 Tide Clethodim 2EC applications, in addition to the specified rate of crop oil concentrate. The addition of AMS has shown improved grass control for difficult to control species including: quackgrass, rhizome Johnsongrass, red rice, wild oats, volunteer cereals, and volunteer corn.	

### ADDITION OF ADJUVANT OR CROP OIL CONCENTRATE

Artichoke (Globe), Asparagus, Bushberry,	Always use a crop oil concentrate at 1% v/v in the
Caneberry, Canola, Carrot, Clover, Cranberry,	finished spray volume unless tank mix instructions
Cucurbits, Flax, Fruiting Vegetables (except	indicate otherwise.
Tomato), Garden Beet, Garlic, Head & Stem	
Brassica Vegetables, Herbs, Hops, Leaf Petioles,	Do not add liquid fertilizer for these crops.
Leafy Brassica Greens, Leafy Greens, Mint,	
Mustard Seed, Onion (Dry Bulb & Green), Peaches	
Root Vegetables, Safflower, Sesame, Shallots (Dry	
Bulb & Green), Strawberry, Sweet Potato (Yam &	
other Tuberous and Corm Vegetables except	
Potato) and Tomato	
Non-Bearing Fruit and Nut Crops, Ornamental	Add a non-ionic surfactant containing at least 80%
Plants	active ingredient at the rate of 1 pt. per 50 gals.
	(0.25% v/v). Do not use crop oil concentrate since
	it may injure flowers and foliage.
Conifer Trees,	Always use a crop oil concentrate containing at
Fallow Land (and other non-producing agricultural	least 15% emulsifier at 1% v/v (but not less than 1
areas), and Non-Crop or Non-Planted Areas	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 the following criteria: be non-phytotoxic, contain only EPA-exempt ingredients, provide good mixing quality, and be successful in local experience. Highly refined vegetable oils have proven more satisfactory than unrefined vegetable oils.

#### **Ground Application**

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

Make applications to onions (dry bulbs and green), garlic, and shallots (dry bulbs and green) 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 bulbs and green), garlic, or shallots (dry bulbs and green): When applying by air do not exceed 8 fl. oz./A in a single application. In California, make air applications to onions, garlic or shallots in a minimum of 20 gals. of spray solution per acre. In states other than California, make air application to onions, garlic or shallots in a minimum of 10 gals. of spray solution per acre.

# NOTE: Crop injury may occur when Tide Clethodim 2EC 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.) Tide Clethodim 2EC and treat to wet vegetation, while not allowing runoff of spray solution. For uses requiring crop oil concentrate, include crop oil concentrate at 1% (1.3 oz. per gal.) by volume. For uses requiring non-ionic surfactant, include non-ionic surfactant at 1/4% (0.33 oz. per gal.) by volume.

NOTE: If Tide Clethodim 2EC is applied as a spot treatment, do not exceed the maximum rate allowed on a "per acre" basis or crop injury may occur.

### CHEMIGATION – ONION (Dry Bulb and Green) AND GARLIC SPRINKLER IRRIGATION APPLICATION

# Do not apply Tide Clethodim 2EC by chemigation in the states of Idaho, Montana, Oregon and Washington.

Apply Tide Clethodim 2EC at the high rate specified for annual grasses (16 fl. oz. per acre) when the grass height is at the low end of the range (application to larger grasses may not provide adequate control). Add a crop oil concentrate containing at least 15% emulsifier at 1 quart per acre.

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

Do not apply Tide Clethodim 2EC through an irrigation system connected to a public water system. Public water system means a system for the provision to the public of piped water for human consumption, if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days out of the year.

#### **Use Precautions**

- 1. Apply this product only through sprinkler irrigation systems including center pivot, lateral move, end tow, side (wheel) roll, travelers, big gun, solid set, or have move. Do not apply this product through any other type of irrigation system.
- 2. Crop injury, lack of effectiveness, or illegal pesticide residues in the crop may result from non-uniform distribution of treated water.
- 3. If you have any questions about calibration, contact State Extension Service Specialists, equipment manufacturers or other experts.
- 4. Do not connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system unless the label-prescribed safety devices for public water systems are in place.
- 5. A person knowledgeable of the chemigation system and responsible for its operations or under supervision of the responsible person, shall shut the system down and make necessary adjustments if the need arises.
- 6. The system must contain a functional check valve, vacuum relief valve, and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow.
- 7. The pesticide injection pipeline must contain a functional, automatic, quick-closing valve to prevent the flow of fluid back toward the injection pump.
- 8. The pesticide injection pipeline must also contain a functional, normally closed solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
- 9. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.

- 10. The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.
- 11. Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.
- 12. Do not apply when wind speed favors drift beyond the area intended for treatment.

### PRECAUTIONS AND RESTRICTIONS

### PREAUTIONS

- 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, such as continuous no-tillage in which the perennial grass rhizomes or stolons are not cut up, result in a very staggered, non-uniform weed emergence. Due to this non-uniform weed emergence, make no fewer than 2 Tide Clethodim 2EC applications per year at the appropriate weed-growth stage rate under continuous no-till conditions.
- Grass crops such as corn, rice, sorghum, small grains, or turf, etc. are highly sensitive to Tide Clethodim 2EC.

### RESTRICTIONS

- DO NOT exceed the maximum rate per application listed in the CROP SPECIFIC RESTRICTIONS AND LIMITATIONS FOR TIDE CLETHODIM 2EC table.
- DO NOT exceed the maximum number of applications per year listed in the **CROP SPECIFIC RESTRICTIONS AND LIMITATIONS FOR TIDE CLETHODIM 2EC** table.
- DO NOT exceed the maximum yearly rate listed in the CROP SPECIFIC RESTRICTIONS AND LIMITATIONS FOR TIDE CLETHODIM 2EC table.
- Aerial applications for all tree fruits and tree nuts uses are prohibited.
- Do not apply if rain is expected within 1 hour of application as control may be unsatisfactory.
- Do not apply postemergence broadleaf herbicide within one day following application of Tide Clethodim 2EC or reduced grass control may result.
- Do not apply Tide Clethodim 2EC on vegetable crops being grown for seed production unless specific use directions are provided.
- Application on Long Island, New York, is restricted to no more than 16 fl. oz. (0.25 lb. a.i.) of Tide Clethodim 2EC per acre per year.
- Do not apply under conditions of stress. Applying Tide Clethodim 2EC under conditions that do not promote active grass growth will reduce herbicide effectiveness. These conditions include drought, excessive water, extremes in temperature, low humidity and grasses either partially controlled or stunted from prior pesticide applications. Grasses under these kinds of stressful conditions will not absorb and translocate Tide Clethodim 2EC effectively, and will be less susceptible to herbicide activity.

While all the vegetable crops on this label have been tested and are tolerant to Tide Clethodim 2EC, not all specialty varieties of these crops have been tested. It is advised that, before applying Tide Clethodim 2EC to specialty varieties of vegetable crops on this label, crop tolerance be investigated first using a small section of the field. It is possible that injury symptoms can occur. Symptoms may appear as leaf speckling or stunting.

Always read and follow the restrictions and limitations for all products whether used alone or in a tank mix. The most restrictive labeling of any product used applies in tank mixtures, including all crop rotational and other crop restrictions.

Tank mixes of Tide Clethodim 2EC and broadleaf herbicides may result in reduced grass control. If grass regrowth occurs, an additional application of Tide Clethodim 2EC may be necessary.

## SPRAY DRIFT

#### Aerial Applications:

- Do not release spray at a height greater than 10 feet above the vegetative canopy, unless a greater application height is necessary for pilot safety.
- Applicators are required to use a coarse or coarser droplet size (ASABE S572.1).
- The boom length must not exceed 65% of the wingspan for airplanes or 75% of the rotor blade diameter for helicopters.
- Applicators must use 1/2 swath displacement upwind at the downwind edge of the field.
- Nozzles must be oriented so the spray is directed toward the back of the aircraft.
- Do not apply when wind speeds exceed 10 miles per hour at the application site.
- Do not apply during temperature inversions.

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

- Apply with the nozzle height recommended by the manufacturer, but no more than 3 feet above the ground or crop canopy. For all other ground applications, the nozzle must be no more than 3 feet from the target vegetation.
- Applicators are required to use a medium or coarser droplet size (ASABE S572.1).
- Do not apply when wind speeds exceed 10 miles per hour at the application site.
- Do not apply during temperature inversions.

## **SPRAY DRIFT ADVISORIES**

THE APPLICATOR IS RESPONSIBLE FOR AVOIDING OFF-SITE SPRAY DRIFT.

BE AWARE OF NEARBY NON-TARGET SITES AND ENVIRONMENTAL CONDITIONS.

#### IMPORTANCE OF DROPLET SIZE

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

#### **Controlling Droplet Size - Ground Boom**

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

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

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

#### **BOOM HEIGHT - Ground Boom**

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

#### **RELEASE HEIGHT - Aircraft**

Higher release heights increase the potential for spray drift.

#### SHIELDED SPRAYERS

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

#### **TEMPERATURE AND HUMIDITY**

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

#### **TEMPERATURE INVERSIONS**

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

#### WIND

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

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

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

### WEED RESISTANCE MANAGEMENT

For resistance management, Tide Clethodim 2EC is a Group 1 herbicide. Any weed population may contain or develop plants naturally resistant to Tide Clethodim 2EC and other Group 1 herbicides. Weed species with acquired resistance to Group 1 herbicides may eventually dominate the weed population if Group 1 herbicides are used repeatedly in the same field or in successive years as the primary method of control for targeted species. This may result in partial or total loss of control of those species by Tide Clethodim 2EC or other Group 1 herbicides. Users should scout before and after application. Suspected herbicide-resistant weeds may be identified by these indicators:

Failure to control a weed species normally controlled by the herbicide at the dose applied, especially

if control is achieved on adjacent weeds;

- A spreading patch of non-controlled plants of a particular weed species; and
- Surviving plants mixed with controlled individuals of the same species.

To delay herbicide resistance:

- Avoid the consecutive use of Tide Clethodim 2EC or other target site of action Group 1 herbicides that might have a similar target site of action, on the same weed species.
- Use tank mixtures or premixes with herbicides from different target site of action Groups as long as the involved products are all registered for the same use, have different sites of action and are both effective at the tank mix or prepack rate on the weed(s) of concern (an herbicide mode of action classification by itself may not adequately address specific weeds that are resistant to specific herbicides)
- Base herbicide use on a comprehensive Integrated Pest Management (IPM) program.
- Scout fields prior to application to identify the weed species present and their growth state to determine if the intended application will be effective.
- Scout fields after application to verify that the treatment was effective.
- Contact your local extension specialist, certified crop advisors and/or manufacturer for herbicide resistance management and/or integrated weed management recommendations for specific crops and resistant weed biotypes.

Report any incidence of non-performance of this product against a particular weed species to your Tide International, USA, Inc. retailer, representative or call 949-679-3535. If resistance is suspected, treat weed escapes with an herbicide having a different mechanism of action and/or use non-chemicals means to remove escapes, as practical, with the goal of preventing further seed production.

CROP SPECIFIC	RESTRICTIONS	AND LIMIT	ATIONS FOR <sup>-</sup>	FIDE CLETHODIM 2EC
Crops <sup>1</sup>	Minimum Time From Application To Harvest (PHI)	Use Rates Per Acre	Crop Oil Concentrate Rates Per Acre <sup>2</sup>	Special Use Instructions
Alfalfa 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> (0.094- 0.125 lb ai)	1 qt by ground or 1% v/v (but not less than 1 pt./A) by air⁵	Refer to tank mix partners for feeding, grazing and harvesting restrictions. <sup>5,6</sup> For repeat applications make on a minimum of a 14 day interval. 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> Do not apply more than 16 fl. oz./A (0.25 lb. a.i./A) per application. Do not apply more than 32 fl. oz./A (0.5 lb. a.i./A) per year.
Artichoke (Globe)	30 days	6-8 fl. oz. (0.094- 0.125 lb ai)	1% v/v in the finished spray volume.	For repeat applications make on a minimum of a 14 day interval. <b>Restrictions</b> Do not apply more than 8 fl. oz./A (0.125 lb. a.i./A) per application. Do not apply more than 16 fl. oz./A (0.25 lb. a.i./A) per year.
				Do not apply more than 2 application per year.

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				IDE CLETHODIM 2EC
Crops <sup>1</sup>	Minimum Time From Application To Harvest (PHI)	Use Rates Per Acre	Crop Oil Concentrate Rates Per Acre <sup>2</sup>	Special Use Instructions
Asparagus	1 day	6-8 fl. oz. (0.094- 0.125 lb ai)	1% v/v in the finished spray volume.	For repeat applications make on a minimum of a 14 day interval.
				<b>Restrictions</b> Do not apply more than 8 fl. oz./A (0.125 lb. a.i./A) per application.
				Do not apply more than 16 fl. oz./A (0.25 lb. a.i./A) per year.
		0.40.5		Do not apply more than 2 applications per year.
Bean, Dry (except soybean) [Crop Subgroup 6C] including:	30 days	6-16 fl. oz. (0.094-0.25 Ib ai)	1 qt. by ground or 1% v/v (but not less than 1 pt./A) by air. <sup>5</sup>	For repeat applications make on a minimum of a 14 day interval.
Bean ( <i>Lupinus</i> spp.) Grain Sweet White White Sweet			pun y by an.	Refer to appropriate Table for reduced rate directions for the control of small annual grasses.
Bean ( <i>Phaseolus</i> spp.) Field Kidney Lima (dry) Navy Pinto Tepary Bean ( <i>Vigna</i> spp.)				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.
Adzuki Bean Black-eyed Pea Catjang Cowpea Crowder Pea				<b>Restrictions</b> Do not apply more than 16 fl. oz./A (0.0.25 lb. a.i./A) per application.
Moth Bean Mung Bean Rice Bean Southern Pea				Do not apply more than 32 fl. oz./A (0.5 lb. a.i./A) per year.
Urd Bean Broad (dry) Chickpea				Do not apply more than 2 applications per year.
(garbanzo) Guar Lablab Bean Lentil				

CROP SPECIFIC	RESTRICTIONS	S AND LIMIT	ATIONS FOR T	FIDE CLETHODIM 2EC
Crops <sup>1</sup>	Minimum Time	Use Rates	Crop Oil	Special Use Instructions
	From	Per Acre	Concentrate	
	Application		Rates Per	
	To Harvest (PHI)		Acre <sup>2</sup>	
Bean, Succulent	21 days	6-8 fl. oz.	1 qt. by ground	Refer to appropriate Table
Shelled [Crop		(0.094-	or 1% v/v (but	for reduced rate directions
Subgroup 6B]		0.125 lb ai)	not less than 1 pt./A) by air. <sup>5</sup>	for the control of small
including: Bean ( <i>Phaseolus</i>			pt./A) by all .*	annual grasses.
spp.)				The addition of AMS has
Broad Bean				shown improved grass
(succulent)				control for difficult to control
Lima Bean (green)				species including:
Bean ( <i>Vigna</i> spp.)				quackgrass, rhizome
Black-eyed Pea				Johnsongrass, red rice, wild
Cowpea				oats, volunteer cereals and
Southern Pea				volunteer corn.
				Restrictions
				Do not apply more than 8 fl.
				oz./A (0.125 lb. a.i./A) per
				application.
				Do not apply more than 8 fl.
				oz./A (0.125 lb. a.i./A) per
				year.
				Do not apply more than 1
				application per year.
Beet, Garden	30 days	6-8 fl. oz.	1% v/v in the	For repeat applications
		(0.094-	finished spray	make on a minimum of a 14
		0.125 lb ai)	volume.	day interval.
				Restrictions
				Do not apply more than 8 fl.
				oz./A (0.125 lb. a.i./A) per
				application.
				Do not apply more than 32
				fl. oz./A (0.5 lb. a.i./A) per
				year.
				<i>y</i>
				Do not apply more than 4
				applications per year.

## COOR OPECIFIC RESTRICTIONS AND LIMITATIONS FOR TIDE OF FURDIM 250

CROP SPECIFIC RESTRICTIONS AND LIMITATIONS FOR TIDE CLETHODIM 2EC				
Crops <sup>1</sup>	Minimum Time	Use Rates	Crop Oil	Special Use Instructions
	From	Per Acre	Concentrate	
	Application		Rates Per	
	To Harvest (PHI)		Acre <sup>2</sup>	
Brassica	30 days	6-8 fl. oz.	1% v/v in the	For repeat applications
Vegetables, Head &		(0.094-	finished spray	make on a minimum of a 14
Stem [Crop		0.125 lb ai)	volume.	day interval.
Subgroup 5-16][*]				Destrictions
including: Broccoli				<b>Restrictions</b> Do not apply more than 8 fl.
Brussels sprouts				oz./A (0.125 lb. a.i./A) per
Cabbage				application.
Cauliflower				application.
				Do not apply more than 32
[*Not registered for				fl. oz./A (0.5 lb. a.i./A) per
use in California.]				year.
				Do not apply more than 4
				applications per year.
Bushberry [Crop	14 days	6-8 fl. oz.	1% v/v in the	For repeat applications
Subgroup 13-07B],		(0.094-	finished spray	make a minimum of a 14
including:		0.125 lb ai)	volume.	day interval.
Aronia berry Blueberry, highbush				Apply at the base of the
Chilean guava				plant where grassy weeds
Cranberry, highbush				are growing near the
Currant, Black				ground.
Currant, Buffalo				ground
Currant, native				Restrictions
Currant, Red				Do not apply more than 8 fl.
Elderberry				oz./A (0.125 lb. a.i./A) per
European Barberry				application.
Gooseberry				
Honeysuckle, edible				Do not apply more than 32
Huckleberry				fl. oz./A (0.5 lb. a.i./A) per
Jostaberry Juneberry				year.
Saskatoon berry				Do not apply more than 4
Salal				applications per year.
Sea Buckthorn				
Cultivars, varieties				Do not apply to low growing
and/or hybrids of				berries.
these				
				Do not apply to Bushberry
				grown for root stock.

Crops <sup>1</sup>	Minimum Time From Application To Harvest (PHI)	Use Rates Per Acre	Crop Oil Concentrate Rates Per Acre <sup>2</sup>	Special Use Instructions
Caneberry [Crop Subgroup 13-07A], including: Blackberry Loganberry Raspberry, black Raspberry, red Raspberry, wild Cultivars, varieties and/or hybrids of these	7 days	6-8 fl. oz. (0.094- 0.125 lb ai)	1% v/v in the finished spray volume.	<ul> <li>For repeat applications make on a minimum of a 14 day interval.</li> <li>Apply at the base of the plant where grassy weeds are growing near the ground.</li> <li><b>Restrictions</b> Do not apply more than 8 fl. oz./A (0.125 lb. a.i./A) per application. Do not apply more than 32 fl. oz./A (0.5 lb. a.i./A) per year. Do not apply more than 4 applications per year. Do not apply to low growing berries. Do not apply to Caneberry grown for root stock.</li></ul>

al Use Instructions
duct is applied
the bloom period.
rop safety to this
on a small area of
o, at the desired rate
h the same non-ionic
ant (NIS) that will be
the field. If no crop
se is evident 7 days
eatment, this product
used on the entire
the rate tested and
same NIS used in
o safety test.
o saloty tost.
tions
apply more than 6 fl.
0.094 lb. a.i./A) per
tion.
apply more than 6 fl.
0.094 lb. a.i./A) per
, ,
apply more than 1
tion per year.
apply after crop has
polting.
epeat applications
n a minimum of a 14
erval.
tiono
tions
apply more than 8 fl.
0.125 lb. a.i./A) per tion.
apply more than 32
(0.5 lb. a.i./A) per
apply more than 4
tions per year.

	RESTRICTIONS	S AND LIMIT	i.	TIDE CLETHODIM 2EC
Crops <sup>1</sup>	Minimum Time From Application To Harvest (PHI)	Use Rates Per Acre	Crop Oil Concentrate Rates Per Acre <sup>2</sup>	Special Use Instructions
Clover	15 days before grazing, feeding or harvesting (cutting) for forage or hay.	6-16 fl. oz. (0.094-0.25 lb ai)	1% v/v in the finished spray volume.	For use on clover grown in the states of Idaho, Oregon and Washington only. <b>Restrictions</b> Do not apply more than 16 fl. oz./A (0.25 lb. a.i./A) per application. Do not apply more than 16 fl. oz./A (0.25 lb. a.i./A) per year. Do not apply more than 1
<b>Corn, Field</b> For burndown of existing stand of Roundup Ready field corn or volunteer Roundup Ready field corn prior to replanting field corn. See Directions for Use in Roundup Ready Field Corn (Burndown) table.	90 days	3 fl. oz. (0.047 lb ai)	Do not use COC or MSO with Tide Clethodim 2EC in this use pattern.	application per year.To control the existingstand, replant no soonerthan 6 days afterapplication.RestrictionsDo not apply more than 3 fl.oz./A (0.047 lb. a.i./A) perapplication.Do not apply more than 3 fl.oz./A (0.047 lb. a.i./A) perapplication.Do not apply more than 3 fl.oz./A (0.047 lb. a.i./A) peryear.Do not apply more than 1 application per year.

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Crops <sup>1</sup>	Minimum Time	Use Rates	Crop Oil	FIDE CLETHODIM 2EC Special Use Instructions
Crops	From Application To Harvest (PHI)	Per Acre	Concentrate Rates Per Acre <sup>2</sup>	
Cotton including: cotton grown for seed	60 days	6-16 fl. oz. (0.094-0.25 Ib ai)	1 qt. by ground or 1% v/v (but not less than 1 pt./A) by air. <sup>5</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. For repeat applications make on a minimum of a 14 day interval. <b>Restrictions</b> Do not apply more than 16 fl. oz./A (0.25 lb. a.i./A) per application. Do not apply more than 32 fl. oz./A (0.5 lb. a.i./A) per year. Do not apply more than 2 applications per year.
				Do not graze on treated fields or feed treated forage or hay to livestock.
Cranberry	30 days	6-8 fl. oz. (0.094- 0.125 lb ai)	1% v/v in the finished spray volume.	For repeat applications make on a minimum of a 14 day interval. <b>Restrictions</b> Do not apply more than 8 fl. oz./A (0.125 lb. a.i./A) per application. Do not apply more than 32
				fl. oz./A (0.5 lb. a.i./A) per year. Do not apply more than 4 applications per year. Do not apply between the "hook" stage and full fruit set.

Crops <sup>1</sup>	Minimum Time	Use Rates	Crop Oil	Special Use Instructions
-	From	Per Acre	Concentrate	
	Application		Rates Per	
	To Harvest (PHI)		Acre <sup>2</sup>	
Cucurbits [Crop	14 days	6-8 fl. oz.	1% v/v in the	For repeat applications
Subgroup 9B]		(0.094-	finished spray	make on a minimum of a 14
including:		0.125 lb ai)	volume.	day interval.
Chayote (fruit)				
Chinese Wax Gourd				Restrictions
Citron Melon				Do not apply more than 8 fl.
Cucumber				oz./A (0.125 lb. a.i./A) per
Gherkin				application.
Gourd, Edible				
Muskmelons (all)				Do not apply more than 32
including:				fl. oz./A (0.5 lb. a.i./A) per
Cantaloupes				year.
Honeydew Melon				
Pumpkin				Do not apply more than 4
Squash (all)				applications per year.
including:				
Squash, Summer				
Squash, Winter				
(butternut				
squash,				
calabaza,				
hubbard squash,				
acorn squash,				
spaghetti squash)				
Watermelon				

		l .		TIDE CLETHODIM 2EC
Crops <sup>1</sup>	Minimum Time From Application	Use Rates Per Acre	Crop Oil Concentrate Rates Per	Special Use Instructions
E all and a state	To Harvest (PHI)	0.40.5	Acre <sup>2</sup>	
Fallow Land Conifer Trees (and other non- producing	N/A	6-16 fl. oz. (0.094-0.25 Ib ai)	1% v/v (but not less than 1 pt./A) in the finished spray	For repeat applications make on a minimum of a 14 day interval.
agricultural areas) Non-Crop or Non-Planted Areas			volume using a crop oil concentrate containing at least 15%	<b>Restrictions</b> Do not apply more than 16 fl. oz./A (0.25 lb. a.i./A) per application.
			emulsifier.	Do not apply more than 32 fl. oz./A (0.5 lb. a.i./A) per year.
				Do not apply more than 2 applications per year, except for conifer trees.
				For conifer trees, do not apply more than 2 applications at 16 fl. oz./A (0.25 lb. a.i./A) per year or 4 applications at 8 fl. oz./A (0.125 lb. a.i./A) per year.
				Do not plant any crop for 30 days after application unless clethodim is registered for use in that crop.
Flax[*] [*Not registered for use in California.]	60 days	6-8 fl. oz. (0.094- 0.125 lb ai)	1% v/v in the finished spray volume	Apply prior to bloom. Crop injury may occur when Tide Clethodim 2EC is applied during the bloom period.
				For repeat applications make on a minimum of a 14 day interval.
				<b>Restrictions</b> Do not apply more than 8 fl. oz./A (0.125 lb. a.i./A) per application.
				Do not apply more than 16 fl. oz./A (0.25 lb. a.i./A) per year.
				Do not apply more than 2 applications per year.

## COOR OPECIFIC DESTRICTIONS AND LIMITATIONS FOR THE CLETHORIM 250

Crops <sup>1</sup>	Minimum Time	Use Rates	Crop Oil	Special Use Instructions
	From	Per Acre	Concentrate	
	Application		Rates Per	
	To Harvest (PHI)		Acre <sup>2</sup>	
Fruiting Vegetable	20 days	6-8 fl. oz.	1% v/v in the	For repeat applications
(except tomato)		(0.094-	finished spray	make on a minimum of a 14
[Crop Group 8-10]		0.125 lb ai)	volume.	day interval.
including:				
Eggplant				Restrictions
Groundcherry				Do not apply more than 8 fl.
Pepino				oz./A (0.125 lb. a.i./A) per
Peppers (all)				application.
Tomatillo				
				Do not apply more than 32
				fl. oz./A (0.5 lb. a.i./A) per
				year.
				Do not apply more than 4
				applications per year.

Crops <sup>1</sup>	Minimum Time	Use Rates	Crop Oil	Special Use Instructions
Clobs	From	Per Acre	Concentrate	opecial use instructions
	Application	I EI ACIE	Rates Per	
	To Harvest (PHI)		Acre <sup>2</sup>	
Herbs [Crop	14 days	6-8 fl. oz.	1% v/v in the	Tide Clethodim 2EC has not
Subgroup 19A]	14 days	(0.094-	finished spray	been tested on all herbs,
including:		0.125 lb ai)	volume	and herb varieties. It is the
Angelica		0.120 10 al)	Volume	responsibility of the user to
Balm				test Tide Clethodim 2EC on
Basil				a small portion of the crop
Borage				to be treated before treating
Burnet				the entire field.
Camomile				
Catnip				Verify crop tolerance to Tide
Chervil (dried)				Clethodim 2EC on a small
Chive				area of the herb crop, at the
Chive, Chinese				desired Tide Clethodim 2EC
Clary				rate and with the same crop
Coriander (leaf)				oil concentrate that will be
Costmary				used on the herb field. If no
Culantro (leaf)				crop response is evident
Curry (leaf)				seven 7 days after
Dill (dillweed)				treatment, Tide Clethodim
Horehound				2EC may be used on the
Hyssop				entire field at the rate tested
Lavender				and with the same crop oil
Lovage (leaf)				used in the tolerance test.
Marigold				
Marjoram ( <i>Origanum</i>				For repeat applications
spp.)				make on a minimum of a 14
Nasturtium				day interval.
Parsley (dried)				
Pennyroyal				Restrictions
Rosemary				Do not apply more than 8 fl.
Rue				oz./A (0.125 lb. a.i./A) per
Sage				application.
Savory, Summer				
and Winter				Do not apply more than 32
				fl. oz./A (0.5 lb. a.i./A) per
				year.
				Do not apply more than 4
				applications per year.

#### Minimum Time Use Rates Special Use Instructions Crops<sup>1</sup> Crop Oil From Per Acre Concentrate Application Rates Per To Harvest (PHI) Acre<sup>2</sup> 6-8 fl. oz. Hops 21 days 1% v/v in the For repeat applications (0.094finished sprav make on a minimum of a 14 0.125 lb ai) volume dav interval. Restrictions Do not apply more than 8 fl. oz./A (0.125 lb. a.i./A) per application. Do not apply more than 32 fl. oz./A (0.5 lb. a.i./A) per vear. Do not apply more than 4 applications per year. applications Leaf Petioles [Crop 30 days 6-8 fl. oz. 1% v/v in the For repeat make on a minimum of a 14 Subgroup 22B] (0.094finished spray including: 0.125 lb ai) volume day interval. Cardoon Celery Restrictions Do not apply more than 8 fl. Celtuce Chinese Celery oz./A (0.125 lb. a.i./A) per Fennel, Florence application. (finochio) Rhubarb Do not apply more than 32 Swiss Chard fl. oz./A (0.5 lb. a.i./A) per year. Do not apply more than 4 applications per year. Leafy Brassica 6-8 fl. oz. 1% v/v in the repeat applications 14 days For Greens (except (0.094finished spray make on a minimum of a 14 radish leaves, 0.125 lb ai) day interval. volume turnip greens, watercress) [Crop Restrictions Do not apply more than 8 fl. Subgroup 5-16B][\*] includina: oz./A (0.125 lb. a.i./A) per Broccoli Raab application. Cabbage, Chinese (bok choy) Do not apply more than 32 Collards fl. oz./A (0.5 lb. a.i./A) per Kale year. Mizuna Mustard Greens Do not apply more than 4 Mustard Spinach applications per year. Rape Greens [\*Not registered for use in California.]

		1		
Crops <sup>1</sup>	Minimum Time	Use Rates	Crop Oil	Special Use Instructions
	From	Per Acre	Concentrate	
	Application		Rates Per	
	To Harvest (PHI)		Acre <sup>2</sup>	
Leafy Greens [Crop	14 days	6-8 fl. oz.	1% v/v in the	For repeat applications
Subgroup 4-16A][*]	-	(0.094-	finished spray	make on a minimum of a 14
including:		0.125 lb ai)	volume.	day interval.
Amaranth				
Chinese Spinach				Restrictions
Leafy Amaranth				Do not apply more than 8 fl.
Tampala				oz./A (0.125 lb. a.i./A) per
Arugula (roquette)				application.
Chervil				
Chrysanthemum,				Do not apply more than 32
Edible-leaved				fl. oz./A (0.5 lb. a.i./A) per
Chrysanthemum,				year.
Garland				<b>y</b> =
Corn Salad				Do not apply more than 4
Cress, Garden				applications per year.
Upland (yellow				
rock and winter)				
, Dandelion				
Dock (sorrel)				
Endive (escarole)				
Lettuce, Head and				
Leaf				
Orach				
Parsley				
Purslane				
Garden				
Winter				
Radicchio (red				
chicory)				
Spinach				
New Zealand				
Vine (Indian &				
Malabar)				
,				
[*Not registered for				
use in California.]				
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		<u>S AND LIMIT</u>		TIDE CLETHODIM 2EC
Crops <sup>1</sup>	Minimum Time	Use Rates	Crop Oil	Special Use Instructions
	From	Per Acre	Concentrate	
	Application		Rates Per	
	To Harvest (PHI)	0.0 4	Acre <sup>2</sup>	
Legume	21 days	6-8 fl. oz.	1 qt. by ground	Refer to appropriate Table
Vegetables, Edible		(0.094-	or 1% v/v (but	for reduced rate directions
Podded [Crop		0.125 lb ai)	not less than 1	for the control of small
Subgroup 6A] including:			pt./A) by air. <sup>5</sup>	annual grasses.
Bean ( <i>Phaseolus</i>				The addition of AMS has
spp.)				shown improved grass
Runner				control for difficult to control
Snap				grasses including:
Wax				quackgrass, rhizome
Bean ( <i>Vigna</i> spp.)				Johnsongrass, red rice, wild
Asparagus				oats, volunteer cereals, and
Chinese Longbean				volunteer corn.
Moth				
Yardlong				Restrictions
Jackbean				Do not apply more than 8 fl.
Pea (P <i>isum</i> spp.)				oz./A (0.125 lb. a.i./A) per
Dwarf Edible-pod				application.
Snow				Do not apply more than 8 fl.
Sugar Snap				oz./A (0.125 lb. a.i./A) per
Pigeon				year.
Sword Bean				,
				Do not apply more than 1
				application per year.
				For peas apply before
				bloom, but no later than 21
Mint	21 days	6-16 fl. oz <sup>4</sup>	1 qt. by ground	days before harvest. For repeat applications
	ZTUAYS	(0.094-0.25	or 1% v/v (but	For repeat applications make on a minimum of a 14
Peppermint, tops		(0.004-0.20 lb ai)	not less than	day interval.
Spearmint, tops		is all	1pt./A by air).	
				Restrictions
				Do not apply more than 16
				fl. oz./A (0.25 lb. a.i./A) per
				application.
				Do not apply more than 32
				fl. oz./A (0.5 lb. a.i./A) per
				year.
				Do not apply more than 2
				applications per year.
		l	1	applications per year.

Minimum Time	Use Rates	Crop Oil	Special Use Instructions
From	Per Acre	Concentrate	
		Rates Per	
75 days			Crop injury may occur when
	`		Tide Clethodim 2EC is
	lb ai)	volume.	applied during the bloom
			period.
			Destrictions
			Restrictions
			Do not apply more than 6 fl. oz./A (0.094 lb. a.i./A) per
			application.
			••
			Do not apply more than 12
			fl. oz./A (0.188 lb. a.i./A) per
			year.
			Do not apply more than 2
			applications per year.
			Do not apply after crop has
			begun bolting.
		From Per Acre Application To Harvest (PHI)	From ApplicationPer Acre Rates Per Acre2To Harvest (PHI)Acre275 days4-6 fl. oz. (0.06-0.0941% v/v in the finished spray

				FIDE CLETHODIM 2EC
Crops <sup>1</sup>	Minimum Time From	Use Rates Per Acre	Crop Oil Concentrate	Special Use Instructions
		Fel Acre	Rates Per	
	Application To Harvest (PHI)		Acre <sup>2</sup>	
Onion, Bulb [Crop	45 days	6-16 fl. oz. <sup>7,8</sup>	1% v/v in the	Minimum of 20 gals./A spray
Subgroup 3-07A]	45 uays	(0.094-0.25	finished spray	volume by ground in entire
(Dry Bulb Only)		(0.094-0.20 Ib ai)	volume.	U.S.
Garlic		ib al)	volume.	
Shallot				Minimum of 20 gals./A spray
(Dry Bulb Only)				volume by air in California.9
				In states other than California, make air applications to onions, garlic or shallots in a minimum of 10 gals./A.
				For repeat applications make on a minimum of a 14 day interval.
				<b>Restrictions</b> Do not apply more than 16 fl. oz./A (0.25 lb. a.i./A) per application.
				For garlic, shallots and air applications, do not apply more than 8 fl. oz./A (0.25 lb. a.i./A) per application.
				Do not apply more than 32 fl. oz./A (0.5 lb. a.i./A) per year.
				For garlic, shallots and air applications, do not apply more than 16 fl. oz./A (0.125 lb. a.i./A) per application.
				Do not apply more than 2 applications per year.
				In California, do not apply this product to garlic or onion until the crop has at least two full leaves. Use a 14 day spray interval between the application of this product and liquid nitrogen or other herbicide applications. Injury to crop may occur when shorter intervals are
				observed.

Crops <sup>1</sup>	Minimum Time	Use Rates	Crop Oil	Special Use Instructions
	From	Per Acre	Concentrate	
	Application		Rates Per	
	To Harvest (PHI)		Acre <sup>2</sup>	
Onion, Green [Crop	14 days	6-8 fl. oz.	1% v/v in the	For repeat applications
Subgroup 3-07B][*]		(0.094-	finished spray	make on a minimum of a 14
including:		0.125 lb ai)	volume	day interval.
Green Eschalot				
Green Shallot				Restrictions
Japanese Bunching				Do not apply more than 8 fl.
Onion				oz./A (0.125 lb. a.i./A) per
Leeks				application.
Scallion or Spring				
Onion				Do not apply more than 22
Onion				Do not apply more than 32 $f_{1}$ or $(A = 0.5 \text{ more})$
				fl. oz./A (0.5 lb. a.i./A) per
				year.
				Do not apply more than 4
				applications per year.

CROP SPECIFIC Crops <sup>1</sup>	Minimum Time	Use Rates	Crop Oil	Special Use Instructions
	From	Per Acre	Concentrate	
	Application To Harvest (PHI)		Rates Per Acre <sup>2</sup>	
Ornamentals	N/A	6-16 fl. oz. (0.094-0.25 Ib ai)	Do not use crop oil concentrate	Add a non-ionic surfactant containing at least 80% active ingredient at the rate
Non-Bearing Fruit	N/A	6-8 fl. oz. <sup>8</sup>	since it may injure flowers	of 1 pt. per 50 gals. (0.25% v/v).
and Nut Crops		(0.094- 0.125 lb ai)	and foliage. See Special Use Instructions.	For repeat applications make on a minimum of a 14 day interval.
				<b>Restrictions</b> For ornamentals, do not apply more than 16 fl. oz./A (0.25 lb. a.i./A) per application.
				For non-bearing fruit and nut crops, do not apply more than 8 fl. oz./A (0.125 lb. a.i./A) per application.
				Do not apply more than 32 fl. oz./A (0.5 lb. a.i./A) per year.
				For non-bearing fruit and nut crops, o not apply more than 4 applications per year.
				For ornamentals, do not apply more than 2 applications per year.
				Sugar maples cannot be tapped for syrup within one year of Tide Clethodim 2EC application.

Crops <sup>1</sup>	Minimum Time	Use Rates	Crop Oil	Special Use Instructions
	From	Per Acre	Concentrate	-
	Application		Rates Per	
	To Harvest (PHI)		Acre <sup>2</sup>	
Pea, Dry Shelled [Crop Subgroup 6C] including: Pea ( <i>Pisum</i> spp.) Field Pigeon		6-8 fl. oz. (0.094- 0.125 lb ai)	Acre <sup>2</sup> 1 qt. by ground or 1% v/v (but no less than 1 pt./A) by air. <sup>5</sup>	Apply before bloom but not later than 30 days prior to harvest. <sup>10</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> Do not apply more than 8 fl. oz./A (0.125 lb. a.i./A) per application. Do not apply more than 8 fl. oz./A (0.125 lb. a.i./A) per year.
				Do not apply more than 1 application per year.

CROP SPECIFIC	C RESTRICTIONS	S AND LIMIT	ATIONS FOR	TIDE CLETHODIM 2EC
Crops <sup>1</sup>	Minimum Time From Application To Harvest (PHI)	Use Rates Per Acre	Crop Oil Concentrate Rates Per Acre <sup>2</sup>	Special Use Instructions
Pea, Succulent Shelled [Crop Subgroup 6B] including: Pea ( <i>Pisum</i> spp.) English Pea Garden Pea Green Pea Pigeon Pea	21 days	6-8 fl. oz. (0.094- 0.125 lb ai)	1 qt. by ground or 1% v/v (but not less than 1 pt./A) by air. <sup>5</sup>	Apply before bloom but no later than 21 days prior to harvest. <sup>10</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> Do not apply more than 8 fl. oz./A (0.125 lb. a.i./A) per application. Do not apply more than 8 fl. oz./A (0.125 lb. a.i./A) per year.
Peach	14 days	6-8 fl. oz. (0.094- 0.125 lb ai)	1% v/v in the finished spray volume.	For repeat applications make on a minimum of a 14 day interval. <b>Restrictions</b> Do not apply more than 8 fl. oz./A (0.125 lb. a.i./A) per application. Do not apply more than 32 fl. oz./A (0.5 lb. a.i./A) per year. Do not apply more than 4 applications per year. Do not apply to Peach grown for root stock.

#### ADAD ADEALERA DEATRIATIONA AND LIMITATIONA FOR TIDE ALE TUODIMACO

CROP SPECIFIC	RESTRICTIONS	SAND LIMIT	ATIONS FOR 1	FIDE CLETHODIM 2EC
Crops <sup>1</sup>	Minimum Time From Application	Use Rates Per Acre	Crop Oil Concentrate Rates Per	Special Use Instructions
Peanut (including Perennial)	To Harvest (PHI) 40 days	6-16 fl. oz. (0.094- 0.125 lb ai)	Acre <sup>2</sup> 1 qt. by ground or 1% v/v (but not less than 1 pt./A) by air. <sup>5</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> Do not apply more than 8 fl. oz./A (0.125 lb. a.i./A) per application. Do not apply more than 32 fl. oz./A (0.5 lb. a.i./A) per year.
Potato	30 days	6-16 fl. oz. (0.094-0.25 lb ai)	1 qt. by ground or 1% v/v (but not less than 1 pt./A) by air. <sup>5</sup>	Do not apply more than 4 applications per year. 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> Do not apply more than 16 fl. oz./A (0.25 lb. a.i./A) per application. Do not apply more than 32 fl. oz./A (0.5 lb. a.i./A) per year. Do not apply more than 2 applications per year.

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#### **Minimum Time** Use Rates Crop Oil Special Use Instructions Crops<sup>1</sup> Concentrate From Per Acre Application Rates Per To Harvest (PHI) Acre<sup>2</sup> Radish 6-8 fl. oz. applications 15 days 1% v/v in the For repeat **Radish Leaves** (0.094finished sprav make on a minimum of a 14 0.125 lb ai) volume. dav interval. Restrictions Do not apply more than 8 fl. oz./A (0.125 lb. a.i./A) per application. Do not apply more than 16 fl. oz./A (0.25 lb. a.i./A) per vear. Do not apply more than 2 applications per year. applications Root Vegetables 30 days 6-8 fl. oz. 1% v/v in the repeat For (except sugarbeets, (0.094make on a minimum of a 14 finished spray radish) [Crop 0.125 lb ai) volume. day interval. Subgroup 1B], including: Restrictions Do not apply more than 8 fl. Chicory Ginseng oz./A (0.125 lb. a.i./A) per Horseradish application. Turnip Do not apply more than 32 fl. oz./A (0.5 lb. a.i./A) per year. Do not apply more than 4 applications per year. Safflower 70 days 6-8 fl. oz. 1% v/v in the repeat applications For (0.094finished spray make on a minimum of a 14 0.125 lb ai) volume. day interval. Restrictions Do not apply more than 8 fl. oz./A (0.125 lb. a.i./A) per application. Do not apply more than 32 fl. oz./A (0.5 lb. a.i./A) per year. Do not apply more than 4 applications per year.

Crops <sup>1</sup>	Minimum Time From Application To Harvest (PHI)	Use Rates Per Acre	Crop Oil Concentrate Rates Per Acre <sup>2</sup>	Special Use Instructions
Sesame	14 days	6-8 fl. oz. (0.094- 0.125 lb ai)	1% v/v in the finished spray volume.	For repeat applications make on a minimum of a 14 day interval. <b>Restrictions</b> Do not apply more than 8 fl. oz./A (0.125 lb. a.i./A) per application. Do not apply more than 32 fl. oz./A (0.5 lb. a.i./A) per year. Do not apply more than 4 applications per year. Do not apply during flowering.

			1	TIDE CLETHODIM 2EC
Crops <sup>1</sup>	Minimum Time From Application To Harvest (PHI)	Use Rates Per Acre	Crop Oil Concentrate Rates Per Acre <sup>2</sup>	Special Use Instructions
Soybean	60 days	6-16 fl. oz. (0.094-0.25 Ib ai)	1 qt. by ground or 1% v/v (but not 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.
				For repeat applications make on a minimum of a 14 day interval.
				<b>Restrictions</b> Do not apply more than 16 fl. oz./A (0.25 lb. a.i./A) per application.
				Do not apply more than 32 fl. oz./A (0.5 lb. a.i./A) per year.
				Do not apply more than 2 applications per year.
				Do not graze treated fields or feed treated forage or hay to livestock.
Strawberry	4 days	6-8 fl. oz. (0.094- 0.125 lb ai)	1% v/v in the finished spray volume	For repeat applications make on a minimum of a 14 day interval.
				<b>Restrictions</b> Do not apply more than 8 fl. oz./A (0.125 lb. a.i./A) per application.
				Do not apply more than 32 fl. oz./A (0.5 lb. a.i./A) per year.
				Do not apply more than 4 applications per year.

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## **CROP SPECIFIC RESTRICTIONS AND LIMITATIONS FOR TIDE CLETHODIM 2EC**

Crops <sup>1</sup>	Minimum Time	Use Rates	Crop Oil	Special Use Instructions
	From	Per Acre	Concentrate	
	Application		Rates Per	
	To Harvest (PHI)		Acre <sup>2</sup>	
Sugar Beet	To Harvest (PHI) 40 days	6-16 fl. oz. (0.094-0.25 lb ai)	Acre <sup>2</sup> 1 qt. by ground or 1% v/v (but not 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. For repeat applications make on a minimum of a 14 day interval. <b>Restrictions</b> Do not apply more than 16 fl. oz./A (0.25 lb. a.i./A) per application. Do not apply more than 32 fl. oz./A (0.5 lb. a.i./A) per year.
				Do not apply more than 2
				applications per year.

#### **CROP SPECIFIC RESTRICTIONS AND LIMITATIONS FOR TIDE CLETHODIM 2EC Minimum Time** Use Rates **Special Use Instructions** Crops<sup>1</sup> Crop Oil Per Acre Concentrate From Application **Rates Per** Acre<sup>2</sup> To Harvest (PHI) Sunflower [Crop 70 days 1 gt. by ground The addition of AMS has 6-16 fl. oz.

Sunflower [Crop Subgroup 20B]	70 days	6-16 fl. oz. (0.094-0.25 lb ai)	1 qt. by ground or 1% v/v (but not less than 1 pt./A) by air. <sup>5</sup>	<ul> <li>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.</li> <li>For repeat applications make on a minimum of a 14 day interval.</li> <li><b>Restrictions</b> Do not apply more than 16 fl. oz./A (0.25 lb. a.i./A) per application. Do not apply more than 32 fl. oz./A (0.5 lb. a.i./A) per year. Do not apply more than 2 applications per year.</li></ul>
Tuberous and Corm Vegetables (except Potato) [Crop Subgroup 1C] including: Artichoke Chinese Jerusalem Cassava Bitter Sweet Ginger Sweet Potato Yam	30 days	6-16 fl. oz. (0.094-0.25 lb ai)	1% v/v in the finished spray volume	The addition of AMS has shown improved grass control for difficult to control species including: quackgrass, rhizome Johnsongrass, red rice, wild oats, volunteer cereals and volunteer corn. For repeat applications make on a minimum of a 14 day interval. <b>Restrictions</b> Do not apply more than 16 fl. oz./A (0.25 lb. a.i./A) per application. Do not apply more than 32 fl. oz./A (0.5 lb. a.i./A) per year. Do not apply more than 2 applications per year.

				FIDE CLETHODIM 2EC
Crops <sup>1</sup>	Minimum Time From Application	Use Rates Per Acre	Crop Oil Concentrate Rates Per	Special Use Instructions
	To Harvest (PHI)		Acre <sup>2</sup>	
Tomato	20 days	6-16 fl. oz. (0.094-0.25 Ib ai)	1% v/v in the finished spray volume	For repeat applications make on a minimum of a 14 day interval.
				<b>Restrictions</b> Do not apply more than 16 fl. oz./A (0.25 lb. a.i./A) per application.
				Do not apply more than 32 fl. oz./A (0.5 lb. a.i./A) per year.
				Do not apply more than 2 applications per year.
Turnip Greens	14 days	6-8 fl. oz. (0.094- 0.125 lb ai)	1% v/v in the finished spray volume.	For repeat applications make on a minimum of a 14 day interval.
				<b>Restrictions</b> Do not apply more than 8 fl. oz./A (0.125 lb. a.i./A) per application.
				Do not apply more than 32 fl. oz./A (0.5 lb. a.i./A) per year.
				Do not apply more than 4 applications per year.

### **CROP SPECIFIC RESTRICTIONS AND LIMITATIONS FOR TIDE CLETHODIM 2EC**

N/A = Not Applicable

- <sup>1</sup> Do not apply Tide Clethodim 2EC 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> Tide Clethodim 2EC 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 mint, the minimum use rate is 10 fl. oz. (0.156 lb ai)/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 Tide Clethodim 2EC applications, in addition to the specified rate of crop oil concentrate.
- <sup>6</sup> Do not apply Tide Clethodim 2EC plus 2, 4-DB as a tank mix to alfalfa unless the 60 day feeding, grazing, and harvesting restricting on the 2, 4-DB label can be observed.

- <sup>7</sup> For ground applications to garlic or shallot, do not exceed 8 fl. oz./A (0.125 lb. a.i./A) in a single application. For air applications to onion, garlic or shallot, do not exceed 8 fl. oz./A (0.125 lb. a.i./A) in a single application. For garlic and shallot, do not exceed 2 applications per year. In CA for air applications to onion, do not exceed 2 applications per year.
- <sup>8</sup> If Tide Clethodim 2EC is applied as a spot treatment to onion, garlic, shallot, or non-bearing fruit and nut crops, do not exceed the maximum rate allowed on a "per acre" basis or crop injury may occur.
- <sup>9</sup> In California, do not apply Tide Clethodim 2EC to onion, garlic, or shallot until the crop has at least two full leaves. In California, use 14 day spray intervals between the application of Tide Clethodim 2EC and liquid nitrogen or other herbicide applications. Injury to crop may occur when shorter intervals are observed.
- <sup>10</sup> Applications of Tide Clethodim 2EC to peas during the bloom period could result in severe crop injury, including loss of yield and delayed maturity.

#### IMPORTANT

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

### NON-BEARING FRUIT AND NUT CROPS

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

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

COMMON NAME	SCIENTIFIC NAME	USE RATES PER ACRE
Apples	<i>Malus</i> spp.	6-8 fl. oz.
Berries	Vaccinium spp.	(0.094-0.125 lb ai)
	Rubus spp.	
Cherry, Sweet	Prunus avium	
Citrus Fruits	<i>Citrus</i> spp.	
Grapes	<i>Vitis</i> spp.	
Olives	<i>Olea</i> spp.	
Peach	Prunus persica	
Pears	Pyrus communis	
Prunes	Prunus spp.	
Stone Fruits	Prunus spp.	
Strawberries	<i>Fragaria</i> spp.	
Tree Nuts		
Almonds	Prunus triloba	
Filbert	Corylus maxima	
Pecan	Carya illinoinensis	
Pistachio	Pistacia vera	
Walnut	Jugians spp.	

#### SPECIAL USE INSTRUCTIONS

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

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

- Do not apply more than 8 fl. oz./A (0.125 lb. a.i./A) per application.
- Do not apply more than 32 fl. oz./A (0.5 lb. a.i./A) per year.
- Do not apply more than 4 applications per year.
- Sugar maples cannot be tapped for syrup within one year of Tide Clethodim 2EC application.
- DO NOT APPLY TIDE CLETHODIM 2EC TO NON-BEARING FRUIT OR NUT CROPS WHICH ARE GROWN FOR ROOT STOCK.

### **CONIFER TREES**

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

COMMON NAME	SCIENTIFIC NAME	USE RATES PER ACRE
Arborvitae, American	Thuja occidentalis	6-16 fl. oz.
Cedars	Cedrus spp.	(0.094-0.25 lb ai)
Cypress	Taxodium spp.	
Fir, Douglas	Pseudotsuga menziesii	
Firs	Abies spp.	
Hemlock, Canadian/Eastern	Tsuga Canadensis	
Hemlock, Western	Tsuga heterophylla	
Pines	Pinus spp.	
Spruces	Picea spp.	]
Yew	Taxus spp.	

#### SPECIAL USE INSTRUCTIONS

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

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

#### Restrictions

- Do not apply more than 16 fl. oz./A (0.25 lb. a.i./A) per application.
- Do not apply more than 32 fl. oz./A (0.5 lb. a.i./A) per year.
- Do not apply more than 2 applications at 16 fl. oz./A (0.25 lb. a.i./A) per year or 4 applications at 8 fl. oz./A (0.125 lb. a.i./A) per year.
- Do not plant any crop for 30 days after application unless clethodim is registered for use in that crop.

### 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 crop-lands. Also beneath greenhouse benches and around golf courses.

GRASS SPECIES	WEED STAGE	APPLICATION RATE	
Annual and perennial grasses that exceed height claimed for	Up to and including grasses in the seed head stage.	6-16 fl. oz. (0.094-0.25 lb ai)	
control on height chart below.	ő	· · · · · · · · · · · · · · · · · · ·	

#### SPECIAL USE INSTRUCTIONS

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

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

- Do not apply more than 16 fl. oz./A (0.25 lb. a.i./A) per application.
- Do not apply more than 32 fl. oz./A (0.5 lb. a.i./A) per year.
- Do not apply more than 2 applications per year.
- Do not plant any crop for 30 days after application unless clethodim is registered for use in that crop.

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

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

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

		WEED	RATE	HIGH RATE <sup>1</sup>
GRASS SPECIES	SCIENTIFIC NAME	HEIGHT* (INCHES)	FL. OZ./ACRE	
Barnyardgrass	Echinochloa crus-galli	2 to 8	6 (0.094 lb ai)	8 (0.125 lb ai)
Broadleaf Signalgrass	Brachiaria platyphylla	2 to 6	6	8
Brome				
California	Bromus carinatus	2 to 6	6	8
Cheat	Bromus secalinus	2 to 6	6	8
Downy	Bromus tectorum	2 to 6	6	8
Ripgut	Bromus diandrus	2 to 6	6	8
Canarygrass	Phalaris canariensis	1 to 4	6	8
Crabgrass				
Hairy	Digitaria adscendens	2 to 6**	6	8
Large	Digitaria sanguinalis	2 to 6**	6	8
Smooth	Digitaria ischaemum	2 to 6**	6	8
Southern	Digitaria ciliaris	2 to 6**	6	8
Crowfootgrass	Dactyloctenium aegyptium	2 to 6**	6	8
Fall Panicum	Panicum dichotomiflorum	2 to 8	6	8
Field Sandbur	Cenchrus incertus	2 to 6	6	8
Foxtail				
Giant	Setaria faberi	2 to 12	6	8
Green	Setaria viridis	2 to 8	6	8
Yellow	Setaria glauca	2 to 8	6	8
Goosegrass	Eleusine indica	2 to 6**	6	8
Itchgrass	Rottboellia cochinchinensis	2 to 6	6	8
Junglerice	Echinochloa colona	2 to 6	6	8
Lovegrass (Stinkgrass)	Eragrostis cilianensis	2 to 6	6	8
Rabbitsfootgrass	Polypogon monspeliensis	1 to 4	6	8
Red Rice	Oryza sativa	1 to 3	6	8
Ryegrass				
Hardy	Lolium remotum	2 to 6	6	8
Italian	Lolium multiflorum	2 to 6	6	8
Seedling Johnsongrass	Sorghum halepense	4 to 10	6	8
Shattercane	Sorghum bicolor	6 to 18	6	8
Southwestern Cupgrass	Eriochloa gracilis	2 to 6	6	8
Sprangle Top				
Amazon	Leptochloa panicoides	2 to 6	6	8
Bearded	Leptochloa fascicularis	2 to 6	6	8
Mexican	Leptochloa uninervia	2 to 6	6	8
Red	Leptochloa filiformis	2 to 6	6	8

GRASS SPECIES	SCIENTIFIC NAME	WEED HEIGHT* (INCHES)	RATE FL. OZ./ACRE	HIGH RATE <sup>1</sup>
Texas Panicum	Panicum texanum	2 to 6	6	8
Volunteer Cereals <sup>2</sup>				
Barley	Hordeum vulgare	2 to 6	6	8
Oats	Avena sativa	2 to 6	6	8
Rye	Secale cereale	2 to 6	6	8
Wheat	Triticum aestivum	2 to 6	6	8
Volunteer Corn <sup>3</sup>	Zea mays	4 to 12	4	8
Volunteer Corn <sup>3</sup>	Zea mays	12 to 24	6	8
Volunteer Corn (S.R.) <sup>4</sup>	Zea mays	4 to 12	8 (suppress	ion only)
Volunteer Grain Sorghum	Sorghum bicolor	8 to 12	6	8
Wild Oats	Avena fatua	2 to 6	6	8
Wild Proso Millet	Panicum miliaceum	2 to 10	6	8
Witchgrass	Panicum capillare	2 to 8	6	8
Woolly Cupgrass	Eriochloa villosa	2 to 8	6	8

\* 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 (0.125-0.25 lb. a.i./A) may be applied. Refer to the **CROP SPECIFIC RESTRICTIONS AND LIMITATIONS FOR TIDE CLETHODIM 2EC** table for crop specific use restrictions. Do not exceed listed maximum single application rates, annual application rates or number of applications per year.

<sup>2</sup>When a cereal grain crop (such as wheat) is interseeded for crop establishment or is planted as wind breaks to aid in crop establishment, the minimum Tide Clethodim 2EC 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.

### DIRECTIONS FOR ANNUAL & PERENNIAL GRASS CONTROL IN ESTABLISHED ALFALFA AND MINT WITH TIDE CLETHODIM 2EC

GRASS SPECIES	WEED STAGE	RATE FL. OZ./ACRE	HIGH RATE
Annual & Perennial Grasses Listed in Grass Table	See Table	10	16
		(0.156 lb ai)	(0.25 lb ai)

**Mowing:** The best control of annual grasses can be achieved by applying Tide Clethodim 2EC 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 Tide Clethodim 2EC for partial or complete control.

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

**Aerial Application:** Apply Tide Clethodim 2EC in a minimum of 10 GPA in established alfalfa and mint when applying by air.

**Annual Grass Control:** Apply Tide Clethodim 2EC at the grass sizes indicated in the Directions for Annual Grass Table and rates indicated. If a grass has been cut, apply Tide Clethodim 2EC after active growth has resumed and regrowth has reached the minimum height and before it reached the maximum height indicated. Apply before the alfalfa/mint canopy covers the grasses and interferes with the spray coverage. Some annual grasses are spring- and summer-germinating plants, while others are fall-germinating plants, and the time they are actively growing and most susceptible to Tide Clethodim 2EC 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, such as frost, slower plant growth, or the onset of flowering.

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

Use the high rate under heavy grass pressure and/or when grasses are at or near maximum height. Always add a crop oil concentrate at 1 qt./A by ground or 1% v/v (but not less than 1 pt./A) to the finished spray volume by air.

- Do not apply more than 16 fl. oz./A (0.25 lb. a.i./A) per application.
- Do not apply more than 32 fl. oz./A (0.5 lb. a.i./A) per year.
- Do not apply more than 2 applications per year.

DIRECTIONS FOR ANNUAL BLUEGRASS CONTROL WITH TIDE CLETHODIM 2EC				
GRASS SPECIES WEED STAGE RATE FL. OZ./ACRE HIGH RAT				
Annual Bluegrass ( <i>Poa annua</i> )	To 4-leaf	6* (0.094 lb ai)	16 (0.125 lb ai)	

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

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

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

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

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

DIRECTIONS FOR USE IN ROUNDUP READY FIELD CORN (BURNDOWN)				
GRASS SPECIES	WEED SIZE (inches)	RATE WHEN APPLIED ALONE OR WITH GLYPHOSATE		
Field Corn	Up to 12	3 fl. oz./A		
		(0.047 lb ai)		
For control or existing stand of Roundup Ready field corr replanting field corn.				
Care must be taken to avoid in-field boom (spray) overlag	os or excessive crop inj	ury may occur.		
Replant no sooner than 6 days after application.				
Adjuvants: NIS at 0.25% v/v plus AMS at 2.5 to 4 lbs./A.				
Do not use a COC or MSO with Tide Clethodim 2EC in the	is use pattern.			
<ul> <li>Restrictions</li> <li>Do not apply more than 3 fl. oz./A (0.047 lb. a.i./A) per Do not apply more than 3 fl. oz./A (0.047 lb. a.i./A) per Do not apply more than 1 application per year.</li> </ul>				

Do not apply more than 1 application per year. •

#### DIRECTIONS FOR REDUCED RATE TO CONTROL SMALL ANNUAL GRASSES IN CANOLA, DRY SHELLED BEAN & PEA (INCLUDING SOYBEAN), EDIBLE PODDED LEGUME VEGETABLES, FLAX, MUSTARD SEED, SUCCULENT BEAN & PEA AND SUGAR BEET (REDUCED RATE DIRECTIONS NOT FOR USE IN CALIFORNIA)

- Apply only to actively growing grasses at listed 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.

#### Restrictions

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

GRASS SPECIES	SCIENTIFIC NAME	WEED HEIGHT* (INCHES)	RATE FL. OZ./ACRE <sup>1</sup>
Barnyardgrass	Echinochloa crus-galli	1 to 4	4 (0.063 lb ai)
Broadleaf Signalgrass	Brachiaria platyphylla	1 to 4	5 (0.078 lb ai)
Crabgrass			
Large	Digitaria sanguinalis	1 to 3*	4
Large	Digitaria sanguinalis	1 to 4*	5
Smooth	Digitaria ischaemum	1 to 3*	4
Smooth	Digitaria ischaemum	1 to 4*	5
Southern	Digitaria ciliaris	1 to 4*	5
Fall Panicum	Panicum dichotomiflorum	1 to 4	4
Foxtail			
Giant	Setaria faberi	1 to 4	4
Green	Setaria viridis	1 to 4	4
Millet	Setaria italic	1 to 4	5
Yellow	Setaria glauca	1 to 4	4
Seedling Johnsongrass	Sorghum halepense	1 to 6	5
Shattercane	Sorghum bicolor	4 to 10	4
Texas Panicum	Panicum texanum	1 to 4	5
Volunteer Cereals			
Barley	Hordeum vulgare	1 to 4	5
Oats	Avena sativa	1 to 4	5
Wheat	Triticum aestivum	1 to 4	5
Volunteer Corn **	Zea mays	4 to 12	4
Wild Proso Millet	Panicum miliaceum	1 to 6	4
Wild Oats	Avena fatua	1 to 4	5

\* 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.

#### DIRECTIONS FOR PERENNIAL GRASSES

- Apply only to actively growing grasses at listed weed heights.
- Apply when the first grass weed species in a mixed grass weed population reaches the 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 the CROP SPECIFIC RESTRICTIONS AND LIMITATIONS FOR TIDE CLETHODIM 2EC table.
- DO NOT exceed the maximum number of applications per year listed in the **CROP SPECIFIC RESTRICTIONS AND LIMITATIONS FOR TIDE CLETHODIM 2EC** table.
- DO NOT exceed the maximum yearly rate listed in the CROP SPECIFIC RESTRICTIONS AND LIMITATIONS FOR TIDE CLETHODIM 2EC table.

GRASS SPECIES	WEED HEIGHT (inches)	RATE FL. OZ./ ACRE	HIGH RATE
Bermudagrass (Cynodon dactylon)			
First Application	3 (or up to 6" runners)	8 (0.125 lb ai)	16 (0.25 lb ai)
Repeat Application(s) (if regrowth occurs)	3 (or up to 6" runners)	8	16
Fescue, Tall ( <i>Festuca arundinacea</i> )			
First Application	4 to 8	8	16
Repeat Application(s) (if regrowth occurs)	4 to 8	8	16
Foxtail Barley ( <i>Hordeum jubatum</i> )			
First Application	2 to 6	8	16
Repeat Application(s) (if regrowth occurs)	2 to 6	8	16
Orchardgrass ( <i>Dactylis glomerata</i> )			
First Application	4 to 8	8	16
Repeat Application(s) (if regrowth occurs)	4 to 8	8	16
Quackgrass* ( <i>Elytrigia repense</i> )			
First Application	4 to 12	8	16
Repeat Application(s) (if regrowth occurs)	4 to12	8	16
Rhizome Johnsongrass (Sorghum halepense)			
First Application	12 to 24	8	16
Repeat Application(s) (if regrowth occurs)	6 to 18	6	8
Wirestem Muhly ( <i>Muhlenbergia frondosa</i> )			
First Application	4 to 8	8	16
Repeat Application(s) (if regrowth occurs)	4 to 8	8	16
Perennial Bluegrass*			
Roughstalk ( <i>Poa trivialis</i> )			
Kentucky (Poa prantensis)			
First Application	2 to 4	8	16
Repeat Applcation(s) (if regrowth occurs)	2 to 4	8	16
Bentgrass* ( <i>Agrostis</i> spp.)			
First Application	2 to 4	-	16
Repeat Applcation(s) (if regrowth occurs)	2 to 4	-	16

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

### TANK MIXES PRODUCT INFORMATION

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

- 1. Geographic restrictions all products are not registered for use in all areas and rates may vary from one region of labeled use to another;
- 2. Crop rotation restrictions;
- 3. Applicator certification requirements;
- 4. Worker safety rules (e.g., 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 annual rates.

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

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

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

- Apply only to actively growing grass and broadleaf weeds at labeled height or growth stage listed on each label.
- Apply when the first grass or broadleaf weed species in a mixed population reaches the labeled height or growth stage for treatment.
- Apply under favorable soil moisture and humidity that exist a few days after rainfall or within 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 Tide Clethodim 2EC, as specified in the respective size and rate tables.
- Do not tank mix Tide Clethodim 2EC when broadleaf weeds are tall and/or dense enough to prevent proper grass coverage.

#### MIXING INSTRUCTIONS

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

# 5. Fill spray tank to desired level with water. Continue agitation until all spray solution has been applied.

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

#### INFORMATION ON ANTAGONISM

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

### ALFALFA

# Table 1. TIDE CLETHODIM 2EC TANK MIXES WITH BROADLEAF HERBICIDES FOR ALFALFA (Refer to the tables above for specified grasses and growth stages)

	APPLICATION	CROF	-	
PRODUCT <sup>2</sup>	PERENNIAL		CONCENTRATE <sup>3</sup> (V/V)	
	ANNUAL GRASSES	GRASSES	GROUND	AIR
TIDE CLETHODIM 2EC	10 to 16 fl. oz.	10 to 16 fl. oz.		
+	(0.156-0.25 lb ai)	(0.156-0.25 lb ai)+	1%	1%
2,4-DB <sup>4</sup>	+	Refer to product label		
	Refer to product label	for use rates.		
	for use rates.			
TIDE CLETHODIM 2EC	10 to 16 fl. oz.	-		
+	(0.156-0.25 lb ai)			
PURSUIT DG⁵	+ '		1%	1%
or	Refer to product labels			
PURSUIT⁵	for use rates.			
TIDE CLETHODIM 2EC	10 to 16 fl. oz.			
+	(0.156-0.25 lb ai)			
BUCTRIL® 2L <sup>6</sup>	(0.100 0.20 15 di)	_	0.5%	0.5%
or	Refer to product labels	_	0.070	0.070
BUCTRIL GEL <sup>6,7</sup>	for use rates.			
BUGIRIL GEL ","	ior use rates.			

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

<sup>2</sup> <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. Do not tank mix in these situations.

<sup>3</sup> <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> <sup>4</sup> Tide Clethodim 2EC plus 2,4DB 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 PURSUIT or PURSUIT DG labels for geographical restrictions and restrictions regarding alfalfa growth stage and type. Failure to do so can result in crop injury to alfalfa.

<sup>5</sup> <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: Tide Clethodim 2EC plus BUCTRIL or BUCTRIL GEL tank mix must be applied in the fall or spring to seedling alfalfa when the majority of the field has a minimum of 2 trifoliates. Unacceptable crop injury may occur to alfalfa seedlings less than the 2 trifoliate leaf stage. Tide Clethodim 2EC plus BUCTRIL or BUCTRIL GEL 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 listed above, apply in the fall or spring to seedling alfalfa when the majority of the field has a minimum of 4 trifoliate leaves. When alfalfa stand is uneven and conditions favor leaf burn, unacceptable crop injury may occur to alfalfa in the 2 trifoliate or smaller stage of growth. Tide Clethodim 2EC plus BUCTRIL or BUCTRIL GEL 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 Tide Clethodim 2EC plus BUCTRIL or BUCTRIL OF BUCTR

<sup>6</sup> <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.

#### CANOLA

# Table 2. REDUCED RATE TIDE CLETHODIM 2EC TANK MIXES WITH BROADLEAF HERBICIDES FOR CANOLA

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

	APPLICATION RATES/ACRE <sup>1</sup>			
PRODUCT	ANNUAL	PERENNIAL	AMMONIUM SULFATE	
ПКОВООТ	GRASSES <sup>1</sup>	GRASSES	GROUND	AIR
	4 to 5 fl. oz.			
	(0.063-0.078 lb ai)			
TIDE CLETHODIM 2EC <sup>2</sup>	+		3.0 lbs.	3.0 lbs.
+	Refer to product	-	3.0 IDS.	3.0 IDS.
LIBERTY <sup>3</sup>	label for use rates.			

<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 Tide Clethodim 2EC tank mix during or after bolting or flowering or crop injury may occur. <sup>3</sup>For use only on LibertyLink® canola.

### COTTON

# Table 3. TIDE CLETHODIM 2EC TANK MIXED WITH COBRA® AND MSMA APPLIED POST DIRECTED TO COTTON

PRODUCT <sup>1</sup>	APPLICATION RATE/ACRE <sup>2</sup> CROP OIL CONCENTRAT V/V			COMMENTS	
	ANNUAL GRASSES	PERENNIAL GRASSES	GROUND		
TIDE CLETHODIM	6 to 8 fl. oz.	8 to 16 fl. oz.	1%	Reduce broadcast	
2EC <sup>4</sup>	(0.094-0.125 lb ai)	(0.125-0.25 lb ai)		rate in proportion	
+	See COBRA label f	or rates to control b	roadleaf weeds and	to the band area	
COBRA	height limitations for	or cotton. Refer to	the Tide Clethodim	actually treated.	
+	2EC label for weed	2EC label for weed height and species controlled.			
MSMA	See MSMA label for	or rates to control b	roadleaf weeds and		
(4.0 lbs./gal.)	height limitations for cotton. Refer to the Tide Clethodim				
or	2EC label for weed height and species controlled.				
MSMA		5 1			
(6.6 lbs./gal.)					

<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. Do not tank mix in these situations. <sup>2</sup>If grass regrowth occurs or an additional flush of new grass emerges, make a second application of Tide Clethodim 2EC 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 Tide Clethodim 2EC may be necessary.

### COTTON (continued)

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

PRODUCT <sup>1</sup>	APPLICATION RATE/ACRE <sup>2</sup> ANNUAL GRASSES	CROP OIL CONCENTRATE <sup>3</sup>	COMMENTS <sup>7</sup>
TIDE CLETHODIM 2EC + BUCTRIL 4 EC <sup>4,5,6</sup>	8 to 16 fl. oz. (0.125-0.25 lb ai) + Refer to product 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 when 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 Tide Clethodim 2EC at the specified rate with the appropriate amount of crop oil concentrate in a non-BUCTRIL tank mix.

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

<sup>4</sup>Applications of BUCTRIL 4 EC can be made only to cotton that has been genetically modified for crop tolerance to postemergence over-the-top applications of bromoxynil.

<sup>5</sup>Do not apply the Tide Clethodim 2EC plus BUCTRIL tank mix within 75 days of harvest.

<sup>6</sup>Do not exceed 2 applications of BUCTRIL 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. TIDE CLETHODIM 2EC TANK MIXED WITH GLYPHOSATE TO CONTROL EMERGEDGRASSES IN COTTON AS A BROADCAST APPLICATION

				VANT	
	APPLICATIO	APPLICATION RATE/ACRE <sup>1</sup>			
PRODUCT	ANNUAL GRASSES	PERENNIAL GRASSES	Glyphosate formulation <b>with</b> built in adjuvant	Glyphosate formulation <b>withou</b> t built in adjuvant	COMMENTS
TIDE CLETHODIM 2EC + GLYPHOSATE	6 to 8 fl. oz. (0.094-0.125 lb ai)	8 to 16 fl. oz. (0.125-0.25 lb ai)	Non-ionic surfactant @ 0.125 to 0.25% v/v	Crop oil concentrate @ 1 pt./A plus	See charts for grasses controlled.
	Refer to product label for rates to control broadleaf weeds and height limitations for cotton.		plus ammonium sulfate @ 8.5 to 17 lbs. per 100 gals. of carrier	ammonium sulfate @ 8.5 to 17 lbs. per 100 gals. of carrier	Use a minimum of 10 gals. of spray solution per acre.

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

### DRY AND SUCCULENT SHELLED BEANS

# Table 6. TIDE CLETHODIM 2EC TANK MIXES WITH BROADLEAF HERBICIDES FOR DRY AND SUCCULENT SHELLED BEANS

	APPLICATION RATES/ACRE <sup>1</sup>		CROF CONCEN (V/	ITRATE <sup>3</sup>
PRODUCT <sup>2</sup>	GRASSES	GRASSES	GROUND	AIR
TIDE CLETHODIM 2EC	8 to 10 fl. oz. (0.125-0.156 lb ai)	10 to 16 fl. oz. (0.156-0.25 lb ai)	1%	1%
BASAGRAN®	+ ,	+ /	170	170
	Refer to product label for use rates.	Refer to product label for use rates.		

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

<sup>1</sup>If grass regrowth occurs or an additional flush of new grass emerges, make a second application of Tide Clethodim 2EC 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. Do not tank mix 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 TIDE CLETHODIM 2EC TANK MIXES WITH BROADLEAF HERBICIDES FOR FLAX

(	Refer to the	tables above	for specific grasse	s and growth stages)
			for opeenine gracee	

	APPLICATION RATES/ACRE			
PRODUCT	ANNUAL	PERENNIAL	CROP OIL CONCENTRATE	
	GRASSES <sup>1</sup>	GRASSES	GROUND	AIR
TIDE CLETHODIM 2EC	4 to 5 fl. oz. (0.063-0.078 lb ai) +			
BRONATE ADVANCED <sup>™ 2,3</sup>	Refer to product label for use rates.	-	1 pt.	1 pt.
TIDE CLETHODIM 2EC + BRONATE <sup>® 2,3</sup>	4 to 5 fl. oz. (0.063-0.078 lb ai) + Refer to product label for use rates.	-	1 pt.	1 pt.
TIDE CLETHODIM 2EC + BUCTRIL <sup>2,3</sup>	4 to 5 fl. oz. (0.063-0.078 lb ai) + Refer to product label for use rates.	-	1 pt.	1 pt.
TIDE CLETHODIM 2EC + RHONOX <sup>® 2,3</sup>	4 to 5 fl. oz. (0.063-0.078 lb ai) + Refer to product label for use rates.	-	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 Tide Clethodim 2EC 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. TIDE CLETHODIM 2EC 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
TIDE CLETHODIM 2EC	3 fl. oz. (0.047 lb ai)	Foxtail 1 to 3 Fall Panicum 1 to 3	1 qt.	1 to 2 qts. Or 2.5 to 4.0 lbs. AMS
+ 2,4-D ester* <sup>3</sup>	4 fl. oz. (0.063 lb ai)	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. (0.094-0.125 lb ai) + Refer to product label for use rates.	(See Grass Chart for grasses claimed.)	1 qt.	1 to 2 qts. Or 2.5 to 4.0 lbs. AMS

<sup>1</sup>If grass regrowth occurs or an additional flush of new grass emerges, make a second application of Tide Clethodim 2EC alone (without a tank mix herbicide), 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 Tide Clethodim 2ÉC plus 2, 4-D ester: VALOR®, AUTHORITY® BROADLEAF, CANOPY XL®, DUAL® 8 E, DUAL II®, DUAL MAGNUM®, PROWL®, SENCOR®, SENCOR plus the DUAL products and TURBO®.

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

	APPLICATION RATES/ACRE <sup>1</sup>		CROP OIL CONCENTRATE <sup>3</sup>	
PRODUCT <sup>2</sup>			(V/	V)
	ANNUAL GRASSES	PERENNIAL GRASSES	GROUND	AIR
	6 to 8 fl. oz.	8 to 16 fl. oz.		
TIDE CLETHODIM 2EC	(0.094-0.125 lb ai)	(0.125-0.25 lb ai)		
+	+	+	0.5 to 1%	1%
COBRA	Refer to product	Refer to product label		
	label for use rates.	for use rates.		
	8 to 10 fl. oz.	10 to 16 fl. oz.		
TIDE CLETHODIM 2EC	(0.125-0.156 lb ai)	(0.156-0.25 lb ai)		
+	+	+	1%	1%
BASAGRAN 4 SL	Refer to product	Refer to product label		
	label for use rates.	for use rates.		
	6 to 8 fl. oz.	8 to 16 fl. oz.		
TIDE CLETHODIM 2EC	(0.094-0.125 lb ai)	(0.125-0.25 lb ai)		
	+ '	+	0.5 to 1% <sup>4</sup>	1% <sup>4</sup>
Glyphosate (For use on	Refer to product	Refer to product label		
Roundup Ready soybean only)	label for use rates.	for use rates.		

	APPLICATION	APPLICATION RATES/ACRE <sup>1</sup>		OIL TRATE <sup>3</sup>
PRODUCT <sup>2</sup>	ANNUAL GRASSES	PERENNIAL GRASSES	(V/ GROUND	
TIDE CLETHODIM 2EC	6 to 8 fl. oz. (0.094-0.125 lb ai) +	6 to 8 fl. oz. (0.094-0.125 lb ai) +	0.5 to1%	1%
ULTRA BLAZER®	Refer to product label for use rates.	Refer to product label for use rates.		
TIDE CLETHODIM 2EC	6 to 8 fl. oz. (0.094-0.125 lb ai) +	8 to 16 fl. oz. (0.125-0.25 lb ai) +	1%	1%
FLEXSTAR® HL <sup>6</sup>	Refer to product label for use rates.	Refer to product label for use rates.		
TIDE CLETHODIM 2EC +	8 to 10 fl. oz. (0.125-0.156 lb ai) +	10 to 18 fl. oz. (0.156-0.28 lb ai) +	1%	1%
CLASSIC® 25DG	Refer to product label for use rates.	Refer to product label for use rates.		
TIDE CLETHODIM 2EC <sup>4</sup> +	6 to 8 fl. oz. (0.094-0.125 lb ai) +	8 to 16 fl. oz. (0.125-0.25 lb ai) +	1%	1%
PURSUIT® 70DG	Refer to product label for use rates.	Refer to product label for use rates.		
TIDE CLETHODIM 2EC <sup>5</sup> + COBRA +	8 to 10 fl. oz. (0.125-0.156 lb ai) + Refer to product labels for use rates.	-	0.5%	1%
CLASSIC 25 DG TIDE CLETHODIM 2EC <sup>5</sup> + COBRA + BASAGRAN 4 SL	8 to 10 fl. oz. (0.125-0.156 lb ai) + Refer to product labels for use rates.	-	0.5%	1%
TIDE CLETHODIM 2EC <sup>5</sup> + COBRA + PURSUIT 70 DG	8 to 10 fl. oz. (0.125-0.156 lb ai) + Refer to product labels for use rates.	-	0.5%	1%
TIDE CLETHODIM 2EC⁵ + STORM®	8 to 10 fl. oz. (0.125-0.156 lb ai) + Refer to product	-	0.5%	1%
TIDE CLETHODIM 2EC⁵ + RESOURCE® +	label for use rates. 8 to 10 fl. oz. (0.125-0.156 lb ai) + Refer to product	o 10 fl. oz. 25-0.156 lb ai) + - er to product		1%
PURSUIT 70 DG TIDE CLETHODIM 2EC <sup>5</sup> + RESOURCE + BASAGRAN	labels for use rates. 8 to 10 fl. oz. (0.125-0.156 lb ai) + Refer to product labels for use rates.	-	1%	1%

	APPLICATION		CROP OIL CONCENTRATE <sup>3</sup>		
PRODUCT <sup>2</sup>	ANNUAL GRASSES	PERENNIAL GRASSES	(V/V) GROUND AIR		
TIDE CLETHODIM 2EC⁵ + RESOURCE + CLASSIC	8 to 10 fl. oz. (0.125-0.156 lb ai) + Refer to product labels for use rates.	-	1%	1%	
TIDE CLETHODIM 2EC <sup>5</sup> + COBRA + RESOURCE	6 to 8 fl. oz. (0.094-0.125 lb ai) + - Refer to product labels for use rates.		0.5%	1%	
TIDE CLETHODIM 2EC⁵ + FIRSTRATE®	6 to 8 fl. oz. (0.094-0.125 lb ai) + Refer to product label for use rates.	8 to 16 fl. oz. (0.125-0.25 lb ai) + Refer to product label for use rates.	1%	-	
TIDE CLETHODIM 2EC⁵ + COBRA + FIRSTRATE	6 to 8 fl. oz. (0.094-0.125 lb ai) + Refer to product label for use rates. + Refer to product label for use rates.	6 to 8 fl. oz. (0.094-0.125 lb ai) + Refer to product label for use rates. + Refer to product label for use rates.	1%	-	
TIDE CLETHODIM 2EC⁵ + RAPTOR® (1 AS)	6 to 8 to fl. oz. (0.094-0.125 lb ai) + Refer to product label for use rates.	-	1%	-	
TIDE CLETHODIM 2EC⁵ + COBRA + RAPTOR (1 AS)	6 to 8 fl. oz. (0.094-0.125 lb ai) + Refer to product label for use rates. + Refer to product label for use rates.	-	1%	-	
TIDE CLETHODIM 2EC⁵ + SYNCHRONY® STS™	6 to 8 fl. oz. <sup>7</sup> (0.094-0.125 lb ai) + Refer to product label for use rates.	-	1 qt.	-	
TIDE CLETHODIM 2EC⁵ + COBRA Herbicide + SYNCHRONY STS™	6 to 8 fl. oz. <sup>7</sup> (0.094-0.125 lb ai) + Refer to product label for use rates. + Refer to product label for use rates.	-	1 pt.	-	

	APPLICATION	CROP OIL			
PRODUCT <sup>2</sup>		DEDENNIAL	CONCENTRA (V/V)		
	ANNUAL GRASSES	PERENNIAL GRASSES	GROUND	AIR	
TIDE CLETHODIM 2EC⁵ + RESOURCE	6 to 8 fl. oz. (0.094-0.125 lb ai) + Refer to product label for use rates.	-	1qt.	-	
TIDE CLETHODIM 2EC⁵ + FRONTROW™	8 to 10 fl. oz. (0.125-0.156 lb ai) + Refer to product label for use rates.	-	1%	-	
TIDE CLETHODIM 2EC + FIRSTRATE + FLEXSTAR HL⁵	6 to 8 fl. oz. (0.094-0.125 lb ai) + Refer to product label for use rates. + Refer to product label for use rates.	8 to 16 fl. oz. (0.125-0.25 lb ai) + Refer to product label for use rates. + Refer to product label for use rates.	1%	-	

<sup>1</sup>If grass regrowth occurs or an additional flush of new grass emerges, make a second application of Tide Clethodim 2EC 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. Do not tank mix 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 TIDE CLETHODIM 2EC is tank mixed with glyphosate. If the glyphosate formulation has a stand alone built in adjuvant, add 0.125% v/v non-ionic surfactant in place of crop oil concentrate for ground application and 1% v/v for aerial application.

<sup>5</sup>Add1 to 2 qts./A of liquid fertilizer (10-34-0, 28%N, or 32%N) when Tide Clethodim 2EC is tank mixed with PURSUIT, RESOURCE, STORM, FIRSTRATE, SYNCHRONY, RAPTOR, FRONTROW, COBRA plus RAPTOR. 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 FLEXSTAR HL label for geographic and rotational instructions.

<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.

### SOYBEAN (continued)

Table 10. REDUCED RATE TIDE CLETHODIM 2EC TANK MIXES WITH BROADLEAF HERBICIDES FOR SOYBEAN (Refer to table for reduced rate use in canola, dry shelled bean & pea, edible podded legume vegetables, flax, mustard seed, soybean, succulent bean & pea and sugar beet specifications for small annual grasses specific grasses and growth stages)

	APPLICATION	CROP OIL CONCENTRATE <sup>3,4</sup>			
PRODUCT			(V/V)		
	ANNUAL GRASSES <sup>2</sup>	PERENNIAL GRASSES	GROUND	AIR	
TIDE CLETHODIM 2EC + FIRSTRATE	4 to 8 fl. oz. (0.063-0.125 lb ai) + Refer to product label for use rates.	-	1%	1%	
TIDE CLETHODIM 2EC + PURSUIT 70 DG	4 to 6 fl. oz. (0.063-0.094 lb ai) + Refer to product label for use rates.	-	1%	1%	

<sup>1</sup>If grass regrowth occurs or an additional flush of new grass emerges, make a second application of Tide Clethodim 2EC 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 Tide Clethodim 2EC 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. TIDE CLETHODIM 2EC TANK MIXES WITH BROADLEAF HERBICIDES FOR PEANUT (INCLUDING PEANUT)

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

PRODUCT <sup>2</sup>	APPLICATION RATES/ACRE <sup>1</sup> ANNUAL PERENNIAL GRASSES <sup>2</sup> GRASSES		CROF CONCEN (V/	ITRATE <sup>3</sup>
			GROUND	AIR
TIDE CLETHODIM 2EC + BASAGRAN	8 to 10 fl. oz. (0.125-0.156 lb ai) + Refer to product label for use rates.	-	1%	1%
TIDE CLETHODIM 2EC + ULTRA BLAZER	8 to 10 fl. oz. (0.125-0.156 lb ai) + Refer to product label for use rates.	-	1%	1%

TIDE CLETHODIM 2EC	8 to 10 fl. oz. (0.125-0.156 lb ai) +	-	1%	1%
STORM	Refer to product			
	label for use rates.			

<sup>1</sup>If grass regrowth occurs or an additional flush of new grass emerges, make a second application of Tide Clethodim 2EC 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. Do not tank mix in these situations. <sup>3</sup>Always use a crop oil concentrate at the listed rate (but not less than 1 pt./A) in the finished spray volume.

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

### SUGAR BEET

# Table 12. TIDE CLETHODIM 2EC TANK MIXED WITH STINGER® APPLIED TO SUGAR BEET (Refer to the tables above for specific grasses and growth stages)

	CONC			TRATE <sup>3</sup>
PRODUCT <sup>2</sup>	ANNUAL GRASSES	PERENNIAL GRASSES	(V/ GROUND	V) AIR
TIDE CLETHODIM 2EC	6 to 8 fl. oz.	8 to  16 fl. oz. (0.125-0.25 lb ai)	1%	1%
STINGER	Refer to product label for use rates.			

<sup>1</sup>If grass regrowth occurs or an additional flush of new grass emerges, make a second application of Tide Clethodim 2EC 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. Do not tank mix 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. TIDE CLETHODIM 2EC TANK MIXED WITH BETAMIX® OR BETANEX® APPLIED TO SUGAR BEET

PRODUCT <sup>1</sup>	WEEDS CONTROLLED		WEED HEIGHT	APPLICATION RATE/ACRE <sup>2</sup>
	COMMON NAME	SCIENTIFIC NAME	(inches)	KATE/ACKE
TIDE CLETHODIM 2EC <sup>3</sup> + BETAMIX Or BETANEX	Barnyardgrass Foxtail Foxtail Millet Wild Oat Wild Proso Millet	Echinochloa crus-galli Setaria spp. Setaria italic Avena fatua Panicum miliaceum	1 to 3 1 to 3 1 to 3 1 to 3 1 to 3 1 to 3	8 fl. oz. (0.125 lb ai)
			rate to cont weeds. <b>D</b> o	oduct label for trol broadleaf o <b>not include</b> n the tank mix.
			Refer to product label for rate to control broadleaf weeds. <b>Do not include</b> additives 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. Do not tank mix in these situations.

<sup>2</sup> Do not use crop oil concentrate. Do not include additives in the tank mix. If grass regrowth occurs or an additional flush of new grass emerges, make a second application of Tide Clethodim 2EC 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 Tide Clethodim 2EC at full label rate with appropriate rate of crop oil concentrate.

# Table 14.TIDE CLETHODIM 2EC PLUS BETANEX OR BETAMIX TANK MIX FOR THREESEQUENTIAL APPLICATIONS FOR ANNUAL GRASS CONTROL (MICRO-RATE APPLICATION)

	APPLICATIO	METHYLATED SEED		
PRODUCT		GRASSES		L² V)
TRODUCT	ANNUAL GRASSES	CONTROLLED (inches)	GROUND	AIR
TIDE CLETHODIM 2EC + BETANEX + BETAMIX	2 to 3 fl. oz. (0.031-0.047 lb ai) + Refer to product label for use rates. <sup>3</sup> Or Refer to product label for use rates. <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. Do not tank mix 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.

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

#### **Product Information**

Multiple micro-rate applications of Tide Clethodim 2EC in tank mixtures with reduced rates of BETANEX or BETAMIX and methylated seed oils may be applied by air or ground equipment to sugar beet to control early germinating annual grasses listed above. Refer to BETANEX and BETAMIX labels for use rates. All use precautions and restrictions on the BETANEX and BETAMIX master labels must be followed.

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

Apply Tide Clethodim 2EC in broadcast applications only at a rate of 2 to 3 fl. oz. (0.031-0.047 lb ai)/A in tank mixture with either BETANEX or BETAMIX following the directions for use on the tank mix partner label. Use a minimum of three sequential applications of 2 fl. oz. (0.032 lb ai)/A or a minimum of 2 sequential applications of 3 fl. oz. (0.047 lb ai)/A for Tide Clethodim 2EC tank mixtures. Use a minimum of 3 sequential applications of BETAMIX or BETANEX. 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 Tide Clethodim 2EC (6 to 8 fl. oz. (0.094-0.125 lb ai)/A) and add rates of BETANEX or BETANEX.

#### Use Precautions for Micro-Rate Applications: (See BETANEX and BETAMIX labels for further use precautions.)

Not all weeds will be adequately controlled, even with favorable climatic conditions. Conventional rates of Tide Clethodim 2EC, BETANEX or BETAMIX 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. Tide International, USA, Inc.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 BETANEX or BETAMIX rate 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 TIDE CLETHODIM 2EC AND FUNGICIDES FOR CONTROL OF GRASS WEEDS AND DISEASES IN SUGAR BEET

	APPLICATION	CROP OIL	
PRODUCT <sup>2</sup>	ANNUAL GRASSES	PERENNIAL GRASSES	CONCENTRATE <sup>3</sup> (V/V)
TIDE CLETHODIM 2EC	6 to 8 fl. oz. (0.094-0.125 lb ai)	8 to 16 fl. oz. (0.125-0.25 lb ai)	
+ EMINENT®	+ Refer to product	+ Refer to product label	1%
	label for use rates.	for use rates.	

<sup>1</sup>If grass regrowth occurs or an additional flush of new grass emerges, make a second application of Tide Clethodim 2EC alone (without a tank mix fungicide) according to the appropriate size and rate directions. <sup>2</sup>Refer to Tide Clethodim 2EC 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 TIDE CLETHODIM 2EC AND INSECTICIDES FOR CONTROL OF GRASS WEEDS AND INSECTS IN ALFALFA, COTTON, MINT, PEANUT (INCLUDING PERENNIAL), SOYBEAN AND SUNFLOWER

	APPLICATION RATES/ACRE <sup>1</sup>			CROP					
PRODUCT <sup>2</sup>	ANNUAL GRASSES	PERENNIAL GRASSES	CROP OIL CONCEN TRATE (V/V) <sup>3</sup>	Alfalfa <sup>4</sup>	Cotton	Mint <sup>4,5</sup>	X X X X X X X X X X X X X X X X X X X	Sunflower	
TIDE CLETHODIM 2EC + ORTHENE® 75 S	6 to 8 fl. oz. (0.094-0.125 lb ai) +	8 to 16 fl. oz. (0.125-0.25 lb ai) +	1%		Х	Х	Х		
or ORTHENE 97	Refer to product label for use rates.	Refer to product label for use rates.							
TIDE CLETHODIM 2EC	6 to 8 fl. oz. (0.094-0.125 lb ai) +	8 to 16 fl. oz. (0.125-0.25 lb ai) +	1%		Х	Х	Х	Х	
ORTHENE 90 S <sup>6</sup>	Refer to product label for use rates.	Refer to product label for use rates.							
TIDE CLETHODIM 2EC	6 to 8 fl. oz. (0.094-0.125 lb ai) +	8 to 16 fl. oz. (0.125-0.25 lb ai) +	1%		Х		Х		
DANITOL® 2.4 EC	Refer to product label for use rates.	Refer to product label for use rates.							
TIDE CLETHODIM 2EC + ASANA XL®	6 to 8 fl. oz. (0.094-0.125 lb ai) + Refer to product label	8 to 16 fl. oz. (0.125-0.25 lb ai) + Refer to product label	1%						Х
	for use rates.	for use rates.	4.07						
TIDE CLETHODIM 2EC	6 to 8 fl. oz. (0.094-0.125 lb ai) +	8 to 16 fl. oz. (0.125-0.25 lb ai) +	1%						Х
WARRIOR®	Refer to product label for use rates.	Refer to product label for use rates.							

	APPLICATION RATES/ACRE <sup>1</sup>		APPLICATION RATES/ACRE <sup>1</sup> CROP						
PRODUCT <sup>2</sup>	ANNUAL GRASSES	PERENNIAL GRASSES	CROP OIL CONCEN TRATE (V/V) <sup>3</sup>	Alfalfa <sup>4</sup>	Cotton	Mint <sup>4,5</sup>	Peanut	Soybean	Sunflower
TIDE CLETHODIM 2EC	10 to 16 fl. oz. <sup>7</sup> (0.156-0.25 lb ai)	10 to 16 fl. oz. (0.156-0.25 lb ai)	1%	Х					
WARRIOR	(0.150-0.25 lb al) +	(0.130-0.23 lb al) +							
	Refer to product label	Refer to product label							
	for use rates.	for use rates.							
TIDE CLETHODIM 2EC	10 to 16 fl. oz. <sup>7</sup> (0.156-0.25 lb ai) +	10 to 16 fl. oz. (0.156-0.25 lb ai) +	1%	Х					
BAYTHROID®	Refer to product label for use rates.	Refer to product label for use rates.							
TIDE CLETHODIM 2EC	10 to 16 fl. oz. <sup>7</sup> (0.156-0.25 lb ai) +	10 to 16 fl. oz. (0.156-0.25 lb ai) +	1%	Х					
DIMETHOATE®	Refer to product label for use rates.	Refer to product label for use rates.							

# Table 16. TANK APPLICATION OF TIDE CLETHODIM 2EC AND INSECTICIDES FOR CONTROL OF GRASS WEEDS AND INSECTS IN ALFALFA, COTTON, MINT, PEANUTS (INCLUDING PERENNIAL), SOYBEAN AND SUNFLOWER (continued)

	APPLICATION	RATES/ACRE <sup>1</sup>	CROP						
PRODUCT <sup>2</sup>	ANNUAL GRASSES	PERENNIAL GRASSES	CROP OIL CONCENTRATE (V/V) <sup>3</sup>	Alfalfa <sup>4</sup>	Cotton	Mint <sup>4,5</sup>	Peanut	Soybean	Sunflower
TIDE CLETHODIM 2EC + LORSBAN®	10 to 16 fl. oz. <sup>7</sup> (0.156-0.25 lb ai) + Refer to product label for use rates.	10 to 16 fl. oz. (0.156-0.25 lb ai) + Refer to product label for use rates.	1 to 2 pt. <sup>8</sup>	Х					
TIDE CLETHODIM 2EC + POUNCE®	10 to 16 fl. oz. <sup>7</sup> (0.156-0.25 lb ai) + Refer to product label for use rates.	10 to 16 fl. oz. (0.156-0.25 lb ai) + Refer to product label for use rates.	1%	X					

<sup>1</sup>If grass regrowth occurs or an additional flush of new grass emerges, make a second application of Tide Clethodim 2EC alone (without a tank mix fungicide) according to the appropriate size and rate directions. <sup>2</sup>Refer to Tide Clethodim 2EC and insecticide label for rates and weeds and insecticides controlled.

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

<sup>4</sup>Certain insecticides may cause temporary phytotoxic symptoms on alfalfa and mint foliage. Refer to the insecticide label for further information. It is suggested that 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 Tide Clethodim 2EC rate is 6 to 8 fl. oz. (0.094-0.125 lb ai)/A for annual grass control in baby mint, minimum of 8 fl. oz (0.125 lb ai)./A for annual grass control in established mint and 8 to 16 fl. oz. (0.125-0.25 lb ai)/A for perennial grass control. Crop oil concentrate is added at the rate of 1.0 to 2.0 pts./A.

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

<sup>7</sup>The Tide Clethodim 2EC rate is 6 to 8 fl. oz./A for annual grass control in seedling alfalfa.

<sup>8</sup>For the Tide Clethodim 2EC plus LORSBAN tank mix, reduce the adjuvant rate down to 1.0 pt./A when the LORSBAN rate is 1.0 pt./A or higher.

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

Roundup Ready Volunteer Corn Height (inches)	Tide Clethodim 2EC Rate fl. oz./A	Glyphosate <sup>1</sup> rate for Formulations with built in Adjuvant	Adjuvant
<12	4 (0.063 lb ai)	Refer to product label for use rates.	Non-ionic surfactant @ 0.125 to 0.25% v/v plus
12 to 18	5 (0.078 lb ai)		Ammonium sulfate @ 8.5 to 17 lbs. per 100
18 to 24	6 (0.094 lb ai)		gals./ of carrier

Roundup Ready Volunteer Corn Height (inches)	Tide Clethodim 2EC Rate fl. oz./A	Glyphosate <sup>1</sup> rate for Formulations without built in adjuvant	Adjuvant
<12	4 (0.063 lb ai)	Refer to product label for use rates.	Crop oil concentrate @ 1 pt./A plus
12 to 18	5 (0.078 lb ai)		Ammonium sulfate @ 8.5 to 17 lbs. per 100
18 to 24	6 (0.094 lb ai)		gals./ of carrier

<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 Tide Clethodim 2EC, as specified in the respective size and rate tables.
- Do not tank mix Tide Clethodim 2EC when broadleaf weeds are tall and/or dense enough to prevent proper grass coverage.
- This tank mix may be applied postemergence to ROUNDUP READY soybean up through the full flowering stage. Do not apply less than 60 days before harvest.
- Avoid contact with foliage, green stems, or fruit crops, or any desirable plants and trees, other than soybean with the ROUNDUP READY gene as severe injury or destruction will result.

Do not allow the Tide Clethodim 2EC plus ROUNDUP to mist, drip, drift or splash onto desirable
vegetation as minute quantities of the tank mix can cause severe damage or destruction to the crops,
plants or other areas on which treatment was not intended. The likelihood of injury occurring from
drift of this product is greatest when winds are gusty or in excess of 5 miles per hour. Even under
lesser wind velocities, avoid conditions that allow spray drift to occur such as combinations of spray
pressure and nozzle type that will result in fine particles (mist) that are likely to drift.

### FALLOW LAND

#### DIRECTIONS FOR USE

Tide Clethodim 2EC may be used to control annual and perennial grasses in land that has been left fallow the previous year and other non-producing agricultural areas. Apply Tide Clethodim 2EC at 6 to 8 fl. oz./A (0.094-0.125 lb. a.i./A) for annual grasses and 8 to 16 fl. oz./A (0.125-0.25 lb. a.i./A) for perennial grasses. When both grass and broadleaf weeds are the target pest, Tide Clethodim 2EC may be tank mixed with 2,4-D ester or BANVEL® SGF for broad spectrum control. When both annual and perennial grasses occur in the same field, use a minimum of 8 fl. oz./A (0.125 lb. a.i./A) Tide Clethodim 2EC rate.

#### Restrictions

- For annual grasses, do not apply more than 8 fl. oz./A (0.125 lb. a.i./A) per application.
- For perennial grasses, do not apply more than 16 fl. oz./A (0.25 lb. a.i./A) per application.
- Do not apply more than 32 fl. oz./A (0.5 lb. a.i./A) per year.
- Do not apply more than 2 applications per year.
- 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 Tide Clethodim 2EC application..

#### **PRODUCT INFORMATION:**

- 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 Tide Clethodim 2EC application will not be controlled, and a second application may be necessary.
- The control of perennial grasses may require more than 1 application in non-tilled areas.

# Table 18. TIDE CLETHODIM 2EC IN TANK MIXES TO CONTROL ANNUAL PERENNIAL GRASSESIN FALLOW LAND

	APPLICATION	RATES/ACRE <sup>1</sup>	CROP OIL CONCENTRATE <sup>2</sup>
PRODUCT	ANNUAL GRASSES	PERENNIAL GRASSES	(V/V) Ground/Air
TIDE CLETHODIM 2EC + 2,4-D ester or BANVEL SGF	6 to 8 fl. oz. (0.094-0.125 lb ai) + Refer to product label for use rates.	8 to 16 fl. oz. (0.125-0.25 lb ai)	1%

<sup>1</sup>Refer to Tide Clethodim 2EC label for weed height and species control. Review BANVEL SGF 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.

DIRECTIONS FOR GRASS SUPPRESSION IN NON-CROP AREAS WITH TIDE CLETHODIM 2EC					
GRASS SPECIESRATE FL. OZ./ ACRERATE FL. HIGH 					
Annual and perennial grasses that exceed Up to and including grasses 12 16					
height claimed for control on height chartsin the seed head stage.(0.188 lb ai)(0.25 lb ai)Do not apply as part of a tank mix when applying Tide Clethodim 2EC for grass suppression.					
Add a crop oil concentrate at 1 qt./A by ground to the finished spray volume.					
Restrictions					
<ul> <li>Do not apply more than 16 fl. oz./A (0.25 lb. a.i./A) per application.</li> </ul>					
• Do not apply more than 32 fl. oz./A (0.5 lb.					
Do not apply more than 2 applications per	year.				

# Table 19. TIDE CLETHODIM 2EC FOR THE CONTROL AND/OR SUPPRESSION OF TALL FESCUEIN NATIVE PRAIRIE WARM-SEASON GRASS RESTORATION PROJECTS

PRODUCT	PRODUCT RATES	GRASS WEEDS CONTROLLED/SUPPRESSED		WEED	
		Common Name	Scientific Name	STAGES	
TIDE CLETHODIM 2EC	10 to 12 fl. oz./A (0.156-0.188 lb ai)	Tall Fescue	Festuca arundinacea	4 to 6 inches tall (40 to 60% green-up)	
Adjuvant: Tide Clethodim 2EC must be applied with crop oil concentrate at 1 qt./A, plus a spray grade ammonium sulfate at 2.5 to 4 lbs./A. Mixing Order: Thoroughly mix spray grade ammonium sulfate in water, add Tide Clethodim 2EC, then add crop oil concentrate.					

### SPECIAL APPLICATION INSTRUCTIONS/PRECAUTIONS

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. Do not mow area for 2 weeks after the Tide Clethodim 2EC application.

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 jet nozzles.

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

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

# Table 20. TIDE CLETHODIM 2EC FOR THE SUPPRESSION OF TALL FESCUE SEED-HEADS INNON-PRODUCING AGRICULTURAL AREAS

PRODUCT	PRODUCT RATE	SUPPRESSION	APPLICATION TIMING		
TIDE CLETHODIM 2EC	1 ½ to 2 fl. oz./A (0.023-0.031 lb ai)	Tall Fescue Seed-Heads (Festuca arundinacea)	(50 to 90% Tall Fescue green-up)		
Adjuvant: Tide Clethodim 2EC must be applied with crop oil concentrate at 1 qt./A, plus a spray grade ammonium sulfate at 2.5 to 4 lbs./A. Mixing Order: Thoroughly mix spray grade ammonium sulfate in water, add Tide Clethodim 2EC, then add crop oil concentrate.					

#### SPECIAL APPLICATION INSTRUCTIONS/PRECAUTIONS

Apply at 50 to 90% tall fescue green-up.

Use the higher Tide Clethodim 2EC rate if less tall fescue green matter is present.

Do not mow area for two weeks after the Tide Clethodim 2EC application.

Apply in a minimum of 15 to 20 gals. of water per acre at a spray pressure of 40 to 60 PSI at the nozzle. Apply using flat fan or hollow cone nozzles. Do not use flood nozzles.

2,4-D ester may be added to this tank mix for broadleaf control (see 2,4-D ester label for weeds controlled).

Do not graze treated fields or feed treated forage and/or hay to livestock. Do not plant any crop for 30 days after application, unless clethodim is registered for use in that crop.

### DIRECTIONS FOR USE IN ORNAMENTALS

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

#### IMPORTANT

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

The following plants have shown a tolerance for Tide Clethodim 2EC applications:

COMMON NAME	SCIENTIFIC NAME
Alder, Red	Alnus rubra
Ash	Fraxinus spp.
Basswood	<i>Tilia</i> spp.
Birch, European White	Betula pendula
Birch, River	Betula nigra
Birch, White	Betula papyrifera

### **ORNAMENTAL TREES**

COMMON NAME	SCIENTIFIC NAME
Crabapple, Flowering	Malus halliana
Dogwood, Flowering	Cornus florida
Golden Chain Tree	Laburnum anagyroides
Maples	Acer spp.
Mulberry, White	Morus alba
Oaks	Quercus spp.
Olive, Wild	Elaeagnus angustifolia
Redbud, Eastern	Cercis Canadensis
Sweet Gum, American	Liquidambar styraciflua

### **GROUND COVERS**

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

### GARDEN FLOWERS AND PLANTS

COMMON NAME	SCIENTIFIC NAME
Ageratum	Ageratum spp.
Alyssum*, Sweet	Lobular maritime
Asparagus Fern	Asparagus setaceous
Bleeding Heart	Decent spectabilis
Cast Iron Plant	Aspidistra elatior
Chrysanthemum	Chrysanthemum spp.
Cinquefoil	Potentilla spp.
Coleus	Coleus spp.
Coralbells	Heuchera sanguine
Cranesbill	Geranium spp.
Dahila	Dahlia spp.
Daisy, Trailing African	Osteospermum fruticosum
Daylilly	Hemerocallis spp.
Dusty Miller	Senecio cineraria
Euonymus	Euonymus spp.
Gazania	Gazania spp.
Geranium, House	Pelargonium hortorum
Heather, False	Cuphea hyssopifolia
Hosta	Hosta fortunei
Iris	<i>Iris</i> spp.
Jasmine Tobacco	Nicotiana alata
Loosestrife	Lythrum salicaria
Marigold	<i>Tagetes</i> spp.
Partridgeberry	Mitchella repens

COMMON NAME	SCIENTIFIC NAME	
Petunia*	Petunia hybrida	
Phlox	Phlox spp.	
Pinks	Dianthus spp.	
Portulaca	Portulaca grandiflora	
Salvia	Salvia spp.	
Saxifrage	Saxifrage spp.	
Sedum	Sedum spp.	
Selloum	Philodendron selloum	
Snapdragon*	Antirrhinum majus	
Sweet Flag	Acorus gramineus	
Tickseed	Coreopsis grandiflora	
Touch-Me-Not	Impatiens spp.	
Verbena	Verbena spp.	
Violet	<i>Viola</i> spp.	
Yarrow, Common	Achillea millefolium	
Zinnia	Zinnia elegans	

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

311(005				
COMMON NAME	SCIENTIFIC NAME			
Abelia	Abelia spp.			
Anise, Purple	Illicium floridanum			
Aucuba	Aucuba spp.			
Azalea*	Rhododendron spp.			
Bamboo	Bambusa spp.			
Barberry, Japanese	Berberis thunbergii			
Barberry, Magellan	Berberis buxifolia			
Bayberry	Myrica pensylvanica			
Bottlebrush	Callistemon citrinus			
Boxwood, Common	Buxus sempervirens			
Camellia, Common	Camellia japonica			
Candytuft	Iberis sempervirens			
Cleyera	Cleyera japonica			
Coralberry	Ardisia crenata			
Crape Myrtle	Lagerstroemia indica			
Coyote Brush	Baccharis pilularis			
Fig, Creeping	Ficus pumila			
Gardenia	Gardenia spp.			
Holly	llex spp.			
Honeysuckle	Lonicera spp.			
Indian Hawthorn	Raphiolepis indica			
Jasmine	Jasminum spp.			
Jasmine, Asiatic	Trachelospermum asiaticum			
Jasmine, Star	Trachelospermum jasminoides			
Juniper	Juniperus spp.			
Lantana	Lantana spp.			
Nandina* Bamboo, Heavenly	Nandinia domestica			
Oleander, Common	Nerium oleander			
Oregon Grape	Mahonia aquifolium			

## SHRUBS

COMMON NAME	SCIENTIFIC NAME	
Photinia	Photinia spp.	
Pittosporum	Pittosporum spp.	
Podocarpus	Podocarpus spp.	
Privet	Ligustrum spp.	
Pyracantha	Pyracantha spp.	
Rhododendron	Rhododendron spp.	
Rose	Spiraea bumalda	
Sweet Olive	Osmanthus fragrans	
Viburnum	Viburnum tinus	
Wisteria	<i>Wisteria</i> spp.	
Yellow Sage/Shrub Verbena	Lantana camara	

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

#### DIRECTIONS FOR ANNUAL GRASSES IN ORNAMENTALS

- Apply only to actively growing grasses at labeled 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 a maximum height. **Restrictions**
- Do not apply more than 16 fl. oz./A (0.25 lb. a.i./A) per application.
- Do not apply more than 32 fl. oz./A (0.5 lb. a.i./A) per year.
- Do not apply more than 2 applications per year.

GRASS SPECIES	SCIENTIFIC NAME	WEED* HEIGHT (inches)	RATE FL. OZ./ACRE <sup>1</sup>	HIGH RATE <sup>2</sup>
Barnyardgrass	Echinochloa crus-galli	2 to 8	8 (0.125 lb ai)	16 (0.25 lb ai)
Broadleaf Signalgrass	Brachiaria platyphylla	2 to 6	8	16
Brome				
California	Bromus carinatus	2 to 6	8	16
Cheat	Bromus secalinus	2 to 6	8	16
Downy	Bromus tectorum	2 to 6	8	16
Ripgut	Bromus diandrus	2 to 6	8	16
Canarygrass	Phalaris canariensis	1 to 4	8	16
Crabgrass				
Hairy	Digitaria adscendens	2 to 6**	8	16
Large	Digitaria sanguinalis	2 to 6**	8	16
Smooth	Digitaria ischaemum	2 to 6**	8	16
Southern	Digitaria ciliaris	2 to 6**	8	16
Crowfootgrass	Dactyloctenium aegyptium	2 to 6**	8	16
Fall Panicum	Panicum dichotomiflorum	2 to 8	8	16
Field Sandbur	Cenchrus incertus	2 to 6	8	16
Foxtail				
Giant	Setaria faberi	2 to 12	8	16
Green	Setaria viridis	2 to 8	8	16
Yellow	Setaria glauca	2 to 8	8	16
Goosegrass	Eleusine indica	2 to 6**	8	16
Itchgrass	Rottboellia cochin	2 to 6	8	16
Junglerice	Echinochloa colona	2 to 6	8	16
Lovegrass (Stinkgrass)	Eragrostis cilianensis	2 to 6	8	16
Rabbitsfootgrass	Polypogon monspeliensis	1 to 4	8	16

GRASS SPECIES	SCIENTIFIC NAME	WEED* HEIGHT (inches)	RATE FL. OZ./ACRE <sup>1</sup>	HIGH RATE <sup>2</sup>
Red Rice	Oryza sativa	1 to 3	8	16
Ryegrass				
Hardy	Lolium remotum	2 to 6	8	16
Italian	Lolium multiflorum	2 to 6	8	16
Seedling Johnsongrass	Sorghum halepense	4 to 10	8	16
Shattercane	Sorghum bicolor	6 to 18	8	16
Southwestern Cupgrass	Eriochloa gracilis	2 to 6	8	16
Sprangletop				
Amazon	Leptochloa panicoides	2 to 6	8	16
Bearded	Leptochloa fascicularis	2 to 6	8	16
Mexican	Leptochloa uninervia	2 to 6	8	16
Red	Leptochloa filiformis	2 to 6	8	16
Texas Panicum	Panicum texanum	2 to 6	8	16
Volunteer Cereals				
Barley	Hordeum vulgare	2 to 6	8	16
Oats	Avena sativa	2 to 6	8	16
Rye	Secale cereale	2 to 6	8	16
Wheat	Triticum aestivum	2 to 6	8	16
Volunteer Corn	Zea mays	4 to 12	6	8
Volunteer Corn	Zea mays	12 to 24	8	16
Volunteer Grain Sorghum	Sorghum bicolor	8 to 12	8	16
Wild Oats	Avena fatua	2 to 6	8	16
Wild Proso Millet	Panicum miliaceum	2 to 10	8	16
Witchgrass	Panicum capillare	2 to 8	8	16
Woolly Cupgrass	Eriochloa villosa	2 to 8	8	16

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

\*\*Length of lateral growth.

<sup>1</sup>8 fl. oz. (0.125 lb ai)/A = approximately 0.2 fl. oz./1000 sq. ft.

<sup>2</sup>16 fl. oz. (0.25 lb ai)/A = approximately 0.4 fl. oz./1000 sq. ft.

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

RNAMENTALS	-	
D STAGE	RATE FL. OZ./ACRE	HIGH RATE
o 4-leaf	6 (0.094 lb ai)	16 (0.25 l b ai)
C	4-leaf	4-leaf 6

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

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

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

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

#### Restrictions

• Do not apply more than 16 fl. oz./A (0.25 lb. a.i./A) per application.

- Do not apply more than 32 fl. oz./A (0.5 lb. a.i./A) per year.
- Do not apply more than 2 applications per year.

### DIRECTIONS FOR PERENNIAL GRASSES

- Apply only to actively growing grasses at labeled 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 a maximum height.

#### Restrictions

- Do not apply more than 16 fl. oz./A (0.25 lb. a.i./A) per application.
- Do not apply more than 32 fl. oz./A (0.5 lb. a.i./A) per year.
- Do not apply more than 2 applications per year.

	WEED HEIGHT	RATE FL. OZ./	
GRASS SPECIES	(inches)	ACRE <sup>1</sup>	HIGH RATE <sup>2</sup>
Bermudagrass (Cynodon dactylon)			
First Application	3 (or up to 6" runners)	8 (0.125 lb ai)	16 (0.25 lb ai)
Repeat Application(s) (if regrowth occurs)	3 (or up to 6" runners)	8	16
Quackgrass ( <i>Elytrigia repens</i> )			
First Application	4 to 8	8	16
Repeat Application(s) (if regrowth occurs)	4 to 8	8	16
Rhizome Johnsongrass (Sorghum halepense)			
First Application	12 to 24	8	16
Repeat Application(s) (if regrowth occurs)	6 to 18	6	8
Wirestem Muhly ( <i>Muhlenbergia frondosa</i> )			
First Application	4 to 8	8	16
Repeat Application(s) (if regrowth occurs)	4 to 8	8	16

<sup>18</sup> fl. oz. (0.125 lb ai)/A = approximately 0.2 fl. oz./1000 sq. ft.

<sup>2</sup>16 fl. oz. (0.25 lb ai)/A = approximately 0.4 fl. oz./1000 sq. ft.

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

## STORAGE AND DISPOSAL

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

**PESTICIDE STORAGE:** Keep pesticide in original container. Do not put concentrate or dilute into food or drink containers. Store in a 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 or refill this container. Triple rinse container (or equivalent) promptly after emptying.

(Nonrefillable  $\leq$  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 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

(Nonrefillable > 5 gallons): Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

#### CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND DISCLAIMER

NOTICE: Read the entire Directions for Use, Conditions, Disclaimer of Warranties and Limitations of Liability before using this product. If terms are not acceptable, return the unopened product container at once.

By using this product, user or buyer accepts the following Conditions, 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. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or the manner of use or application, all of which are beyond the control of Tide International, USA, Inc. All such risks shall be assumed by the user or buyer.

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