



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

EPA Reg. Number:

89168-76

Date of Issuance:

12/26/17

NOTICE OF PESTICIDE:

Registration
 Reregistration
 (under FIFRA, as amended)

Term of Issuance:

Unconditional

Name of Pesticide Product:

Liberty Clethodim 1

Name and Address of Registrant (include ZIP Code):

Mary Beth Endres
 Registration Manager
 Liberty Crop Protection, LLC
 4850 Hahns Peak Drive, Suite 200
 Loveland, CO 80538

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


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

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

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

1. Submit and/or cite all data required for registration/reregistration/registration review of your product when the Agency requires all registrants of similar products to submit such data.
2. The data requirements for storage stability and corrosion characteristics (Guidelines 830.6317 and 830.6320) are not satisfied. A one year study is required to satisfy these data requirements. You have 18 months from the date of registration to provide these data.

Signature of Approving Official:


 Erik Kraft, Product Manager 24
 Fungicide & Herbicide Branch, Registration Division (7505P)

Date:

12/26/17

3. Make the following label changes before you release the product for shipment:
 - Revise the EPA Registration Number to read, “EPA Reg. No. 89168-76.”
4. Submit one copy of the revised final printed label for the record before you release the product for shipment.

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

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

- Basic CSF dated 08/23/2017
- Alternate CSF 1 dated 08/23/2017

If you have any questions, please contact Lisa Pabel by phone at (703) 347-0459, or via email at pabel.lisa@epa.gov.

Enclosure: Product chemistry review dated 12/05/2017, DP#442949; Similarity clinic memo dated 10/05/2017, DP#442676

LIBERTY CLETHODIM 1

For Use on Listed Crops

ACTIVE INGREDIENT:	% BY WT.
*Clethodim	12.6%
OTHER INGREDIENTS**:	<u>87.4%</u>
TOTAL:	100.0%

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

**Contains Petroleum Distillates

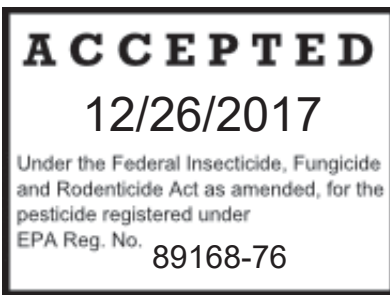
Contains 0.97 lbs. clethodim per gallon.

**KEEP OUT OF REACH OF CHILDREN
CAUTION / PRECAUCIÓN**

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.)

For Chemical Spill, Leak, Fire, or Exposure, Call CHEMTREC (800) 424-9300

SEE INSIDE BOOKLET FOR FIRST AID AND ADDITIONAL PRECAUTIONARY STATEMENTS.



EPA Reg. No.: 89168-TA

EPA Est. No.: _____

NET CONTENTS: ___ GAL (___ L)

Manufactured for:
 LIBERTY CROP PROTECTION, LLC
 1880 Fall River Drive, Suite 100
 Loveland, CO 80538

122117

FIRST AID	
IF SWALLOWED:	<ul style="list-style-type: none"> • Immediately call a poison control center or doctor. • Do not induce vomiting unless told to do so by a poison control center or doctor. • Do not give any liquid to the person. • Do not give anything by mouth to an unconscious person.
IF ON SKIN OR CLOTHING:	<ul style="list-style-type: none"> • Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15-20 minutes. • Call a poison control center or doctor for treatment advice.
IF IN EYES:	<ul style="list-style-type: none"> • 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 INHALED:	<ul style="list-style-type: none"> • Move person to fresh air. • If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. • Call a poison control center or doctor for further treatment advice.
HOTLINE NUMBER	
<p>Have the product container or label with you when calling a poison control center or doctor, or going for treatment. For emergency information concerning this product, call the National Pesticides Information Center (NPIC) at 1-800-858-7378 or your poison control center at 1-800-222-1222. For Chemical Spill, Leak, Fire or Exposure, call CHEMTREC 800-424-9300.</p>	
NOTE TO PHYSICIAN	
<p>Ingestion of this product or subsequent vomiting can result in aspiration of light hydrocarbon liquid, which can cause pneumonitis. If ingested, probable mucosal damage may contraindicate the use of gastric lavage.</p>	

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

Harmful if swallowed. Causes moderate eye irritation. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Avoid contact with skin, eyes, or clothing.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

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, and protective eyewear.

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

USER SAFETY RECOMMENDATIONS
<p>Users should:</p> <ul style="list-style-type: none"> • 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, to areas where surface water is present or to intertidal areas below the mean high water mark. Do not apply where runoff is likely to occur. Do not apply where weather conditions favor drift from areas treated. Do not contaminate water when disposing of equipment washwater or rinsate.

Non-Target Organisms Advisory

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

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

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

Wild Rice: Hays County, Texas.

PHYSICAL OR CHEMICAL HAZARDS

Do not mix or allow into contact with oxidizing agents. Harmful chemical reaction may occur.

DIRECTIONS FOR USE

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

Read the entire label. 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 over short-sleeved shirt and short pants, chemical-resistant gloves, such as barrier laminate or viton \geq 14 mils and shoes plus socks.

NON-AGRICULTURAL USE REQUIREMENTS

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

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

RESISTANCE MANAGEMENT

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

Weed Management

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

- Rotate the use of this product or other Group 1 herbicides within a growing season sequence or among growing seasons with different herbicide groups that control the same weeds in the field.
- Use tank mixtures with herbicides from a different group if such use is permitted; where information on resistance in target weed species is available, use the less resistance-prone partner at a rate that will control the target weed(s) equally as well as the more resistance-prone partner. Consult your local extension service or certified crop advisor if you are unsure as to which active ingredient is currently less prone to resistance.
- Adopt an integrated weed-management program for herbicide use that includes scouting and uses historical information related to herbicide use and crop rotation, and that considers tillage (or other mechanical control methods), cultural (e.g., higher crop seeding rates; precision fertilizer application method and timing to favor the crop and not the weeds), biological (weed-competitive crops or varieties) and other management practices.
- Scout after herbicide application to monitor weed populations for early signs of resistance development. Indicators of possible herbicide resistance include: (1) failure to control a weed species normally controlled by the herbicide at the dose applied, especially if control is achieved on adjacent weeds; (2) a spreading patch of non-controlled plants of a particular weed species; (3) surviving plants mixed with controlled individuals of the same species. If resistance is suspected, prevent weed seed production in the affected area by an alternative herbicide from a different group or by a mechanical method such as hoeing or tillage. Prevent movement of resistant weed seeds to other fields by cleaning harvesting and tillage equipment when moving between fields, and planting clean seed.
- If a weed pest population continues to progress after treatment with this product, discontinue use of this product, and switch to another management strategy or herbicide with a different mode of action, if available.
- Contact your local extension specialist or certified crop advisors for additional pesticide resistance-management and/or integrated weed-management recommendations for specific crops and weed biotypes.
- For further information or to report suspected resistance, contact LIBERTY CROP PROTECTION, LLC at [855-466-8428 or 844-425-8488 or other appropriate telephone number].

Management of Resistant Biotypes

The following good agronomic practices are recommended to reduce the spread of resistant biotypes:

- If a naturally occurring resistant biotype is present in your application site, this product should be tank mixed or applied sequentially with an appropriately labeled herbicide with a different mode of action to achieve control.
- Cultural and mechanical control practices (e.g. crop rotation or tillage) may also be used as appropriate.
- Scout treated application site after herbicide applications and control escaping weeds including resistant biotypes before they set seed.
- Thoroughly clean equipment before leaving fields known to contain resistant biotypes.
- Contact your local sales representative, crop advisor, or extension agent to find out if suspected resistant weeds to this Mode of Actions have been found in your region. If resistant biotypes of target weeds have been reported, use the application rates of this product specified for your local conditions. Tank mix products so that there are multiple effective mechanisms of actions for each target weed.

Integrated Pest (Weed) Management

This product may be integrated into an overall weed pest management strategy whenever the use of an herbicide is required. Practices known to reduce weed development (tillage, crop competition) and herbicide use (weed scouting, proper application timing, banding) should be followed wherever possible. Consult local agricultural and weed authorities for additional IPM strategies established for your area.

TANK MIXES

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

responsibility to ensure that all products in the listed mixtures are registered for the intended use. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

PRODUCT INFORMATION

FOR USE ON: Alfalfa, Artichoke (Globe), Asparagus, Bean (dry) and Pea (shelled) [Dry shelled Bean and Pea except Soybean Subgroup 6C]¹, Bean and Pea (succulent shelled) [Succulent shelled Pea and Bean Subgroup 6B]², Berry Low Growing (except Cranberry and Strawberry) [Subgroup 13-07G]³, Broccoli, Bushberry⁴, Cabbage, Canola*⁵, Caneberry [Subgroup 13-07A]⁶, Carrot, Cauliflower (and other Head and Stem Brassica Vegetables) [Subgroup 5A]⁷, Celery, Clover (grown in Idaho, Oregon and Washington only), Conifers, Cotton (including cotton grown for seed), Cranberry, Cucumber, Eggplant (and other Fruiting Vegetables [Crop Group 8-10])⁸, Fallow Land (and other non-producing agricultural areas), Field Corn⁹, Flax*, Garden Beet, Garlic, Herbs [Subgroup 19A]¹⁰, Hops, Horseradish (and other Root Vegetables [Subgroup 1A])¹¹, Legume Vegetables (edible podded) [Subgroup 6A]¹², Lettuce, Head and Leaf (and other Leafy Greens [Subgroup 4A])¹³, Melons (including Cantaloupe and Watermelon)¹⁴, Mint, Mustard Greens (and other Leafy Brassica Greens [Subgroup 5B])¹⁵ Mustard Seed*, Non-Bearing Food Crops, Non-Crop or Non-Planted Areas, Onions (dry bulb) [Subgroup 3-07A]¹⁶, Onion (green), Ornamentals, Peanut (including perennial), Peppers (bell and non-bell), Pome Fruit [Crop Group 11-10]¹⁷, Potato, Radish, Rhubarb (and other Leaf Petioles) [Subgroup 4B]¹⁸, Safflower, Sesame, Squash (including Pumpkin)¹⁴, Soybean, Stevia (dried leaves), Stone Fruit [Crop Group 12-12]¹⁹, Strawberry, Sugar Beet, Sunflower [Subgroup 20B]²⁰, Sweet Potato, Turnip Greens, Tomato and Yam (and other Tuberous and Corm Vegetables) [Subgroup 1D]²¹

***Not for use in California**

- ¹ Other Bean (dry) and Pea (shelled) [Dry Shelled Bean and Pea except Soybean Subgroup 6C] crops approved for use with this product include: Bean (*Lupinus* spp.), grain lupin, sweet lupin, white lupin and white sweet lupin; Bean (*Phaseolus* spp.), field, kidney, lima (dry), navy, pinto and tepary; Bean (*Vigna* spp.), adzuki bean, black-eyed pea, catjang, cowpea, crowder pea, moth bean, mung bean, rice bean, Southern pea, urd bean, broad (dry), chickpea (garbanzo), guar, lablab bean and lentil; Pea (*Pisum* spp.), field and pigeon.
- ² Other Bean & Pea (succulent shelled) [Subgroup 6B] crops approved for use with this product include: Bean (*Phaseolus* spp.), broad bean (succulent), lima bean (green); Bean (*Vigna* spp.), black-eyed pea, cowpea, Southern pea; Pea (*Pisum* spp.), English pea, garden pea, green pea and pigeon pea.
- ³ Other Berry Low Growing (except Cranberry and Strawberry) [Subgroup 13-07G] crops approved for use with this product include: Bearberry, Bilberry, Blueberry (lowbush), Cloudberry, Lingonberry, Muntries and Partridgeberry.
- ⁴ Other Bushberry crops approved for use with this product include: aronia berry, blueberry (highbush), black currant, buffalo currant, Chilean guava, cranberry (highbush), elderberry, European barberry, gooseberry, honeysuckle (edible), huckleberry (edible), jostaberry, juneberry (saskatoon berry), native currant, salal, sea buckthorn, red currant; cultivars, varieties and/or hybrids of these.
- ⁵ Other canola [Including Rapeseed Subgroup 20A (except flax seed, mustard seed and sesame seed)] crops approved for use with this product include: borage, crambe, cuphea, echium, gold of pleasure (camelina), hare's ear mustard, lesquerella, lunaria, meadowfoam, milkweed, oil radish, poppy seed, rapeseed (canola), sweet rocket.
- ⁶ Other Caneberry [Subgroup 13-07A] crops approved for use with this product include: Blackberry, Loganberry, Raspberry (black and red), Wild Raspberry, cultivars, varieties and/or hybrids of these.
- ⁷ Other head and stem brassica vegetables [Subgroup 5A] crops approved for use with this product include: Chinese broccoli, Brussels sprouts, Chinese (napa) cabbage, Chinese mustard, cavalo broccolo and kohlrabi.
- ⁸ Other Fruiting Vegetables (except tomato) [Crop Group 8-10] crops approved for use with this product include: African eggplant; bush tomato; bell pepper; cocona; currant tomato; eggplant; garden huckleberry; goji berry; groundcherry; martynia; naranjilla; okra; pea eggplant; pepino, nonbell pepper; roselle; scarlet eggplant; sunberry; tomatillo; tree tomato; cultivars, varieties, and/or hybrids of these.
- ⁹ For burndown of existing stand of Roundup Ready field corn or volunteer Roundup Ready field corn prior to replanting field corn.
- ¹⁰ Other Herb [Subgroup 19A] crops approved for use with this product include: angelica, balm, basil, borage, burnet, camomile, catnip, chervil (dried), chive, Chinese chive, clary, coriander (leaf), costmary, culantro (leaf), curry (leaf), dill (dillweed), horehound, hyssop, lavender, lovage (leaf), marigold, marjoram

(*Origanum* spp.), nasturtium, parsley (dried), pennyroyal, rosemary, rue, sage and savory, summer and winter.

- 11 Other root vegetables [Subgroup 1A] crops approved for use with this product include: burdock, edible; celeriac; chervil, turnip-rooted; chicory; ginseng; parsley, turnip-rooted; parsnip; radish, oriental; rutabaga; salsify; salsify, black; salsify, Spanish; skirret and turnip.
- 12 Other Edible Podded Legume Vegetable [Subgroup 6A] crops approved for use with this product include: Bean (*Phaseolus* spp.), runner, snap and wax; Bean (*Vigna* spp.), asparagus, Chinese longbean, moth, yardlong, jackbean; Pea (*Pisum* spp.), dwarf, edible-pod, snow, sugar snap, pigeon and sword bean.
- 13 Other Leafy Greens [Subgroup 4A] crops approved for use with this product include: amaranth (Chinese spinach, leafy amaranth and tampala), arugula (roquette), chervil, chrysanthemum (edible-leaved and garland), corn salad, cress (garden, yellow rock and winter), dandelion, dock (sorrel), endive (escarole), lettuce (head and leaf), orach, parsley, purslane (garden and winter), radicchio (red chicory), spinach, spinach (New Zealand and Vine (Indian and Malabar)).
- 14 Other cucurbit vegetables [Crop Group 9] crops approved for use with this product include: Chayote (fruit), Chinese Wax Gourd, Citron Melon, Edible Gourd, Gherkin and Muskmelons (all) including Honeydew Melon.
- 15 Other leafy brassica greens [Subgroup 5B] crops approved for use with this product include: broccoli raab, Chinese (bok choy) cabbage, collards, kale, mizuna, mustard greens, mustard spinach, rape greens.
- 16 Other Onion, bulb [Subgroup 3-07A] crops approved for use with this product include: Daylily, bulb; fritillaria, bulb; garlic, bulb; garlic, great-headed, bulb; garlic, serpent, bulb; lily, bulb; onion, bulb; onion, Chinese, bulb; onion, pearl; onion, potato, bulb; shallot, bulb; cultivars, varieties, and/or hybrids of these.
- 17 Other pome fruit [Crop Group 11-10] crops approved for use with this product include: apple, azarole, crabapple, loquat, mayhaw, medlar, pear, Asian pear, quince, Chinese quince, Japanese quince and tejocote.
- 18 Other leaf petiole crops approved for use with this product include: cardoon, celtuce, Chinese celery, Florence fennel, and Swiss chard.
- 19 Other stone fruit [Crop Group 12-12] crops approved for use with this product include: apricot; Japanese apricot, capulin, black cherry, nanking cherry, sweet cherry, tart cherry, Chinese jujube, nectarine; peach; plum; American plum, beach plum, Canada plum, cherry plum, chickasaw plum, damson plum, Japanese plum, Klamath plum, prune plum, plumcot, sloe.
- 20 Other sunflower [Subgroup 20B] crops approved for use with this product include: calendula, castor oil plant, Chinese tallowtree, euphorbia, evening primrose, jojoba, Niger seed, rose hip, stokes aster, tallowwood, tea oil plant, vernoia.
- 21 Other tuberous and corm vegetables [Subgroup 1D] crops approved for use with this product include: arracacha, arrowroot, Chinese artichoke, Jerusalem artichoke, edible canna, bitter and sweet cassava, chayote (root), chufa, dasheen (taro), ginger, leren, tanier, turmeric; yam, bean and yam, true.

LIBERTY CLETHODIM 1 is a selective postemergence herbicide for control of annual and perennial grasses. LIBERTY CLETHODIM 1 does not control sedges or broadleaf weeds.

Precautions

- Grass crops including corn, rice, small grains, sorghum or turf, etc. are highly sensitive to this product.
- This product is not directed for use on vegetable crops being grown for seed production unless specific use directions are provided.
- 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, results in a very staggered, non-uniform weed emergence. Due to this non-uniform weed emergence, no fewer than two applications of this product per year are directed at the appropriate weed-growth stage rate under continuous no-till conditions.
- While all the vegetable crops on this label have been tested and are tolerant to this product, not all specialty varieties of these crops have been tested. It is advised that, before applying this product 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.

- Tank mixes of this product and broadleaf herbicides may result in reduced grass control. If grass regrowth occurs, an additional application of this product may be necessary.

Restrictions

- In Nassau and Suffolk Counties of New York State, application rate is limited to 32 fl oz of this product (0.25 lb. a.i.) per acre per year.
- Do not apply if rain is expected within 1 hour of application, as control may be unsatisfactory.
- Do not plant rotational crops until 30 days after application of this product unless crop is listed on this product's label.
- Do not apply a postemergence broadleaf herbicide within one day following application of this product or reduced grass control may result.
- Do not apply under conditions of stress. Applying this product 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 this product effectively, and will be less susceptible to herbicide activity.
- For tank mixes, it is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.
- Aerial applications for all tree fruits and tree nuts uses are prohibited.

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 LIBERTY CLETHODIM 1 postemergence to actively growing grasses according to rate table instructions. 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. **Restriction:** Do not apply under these conditions.

In arid regions where irrigation is used to supplement limited rainfall, apply LIBERTY CLETHODIM 1 as soon as possible, after irrigation (within 7 days). In arid regions, a second application of LIBERTY CLETHODIM 1 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 LIBERTY CLETHODIM 1 may reduce weed control.

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 should reflect a minimum of 30 psi and a maximum of 60 psi at the nozzle.

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

Air Application

Use a minimum of 3 gals. of spray solution per acre unless otherwise directed in this label. Increase spray volumes up to 10 gals. as grass or crop foliage becomes dense. For garlic or onions (dry bulbs and green): When applying by air do not exceed 16 fl oz/A in a single application. In California, air applications to garlic or onions (dry bulbs and green) should be made in a minimum of 20 gals. of spray solution per acre. In states other than California, air application to garlic or onions (dry bulbs and green) should be made in a minimum of 10 gals. of spray solution per acre.

Spot Treatment

When using hand sprayers or high volume sprayers utilizing hand guns, mix 1/3 to 2/3% (0.44 – 0.85 oz per gal.) LIBERTY CLETHODIM 1 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).

Precautions

- **Air Application:** Crop injury may occur when LIBERTY CLETHODIM 1 is applied to garlic or onions with aerial equipment.

Restriction

- **Ground Application:** Do not use flood nozzles.
- **Spot Treatment:** Do not exceed the maximum rate allowed on a “per acre” basis or crop injury may occur.

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

May be applied to garlic and onions by sprinkler irrigation systems.

Apply this product at the high rate specified for annual grasses (32 fl oz/A) when the grass height is at the low end of the range (application to larger grasses may not provide adequate control). Add a crop oil concentrate containing at least 15% emulsifier at 1 quart per acre for non-ionic surfactant with at least 80% active ingredient at 0.25% v/v of total spray solution.

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

Precautions

- Crop injury, lack of effectiveness, or illegal pesticide residues in the crop may result from non-uniform distribution of treated water.
- If you have any questions about calibration, you should contact State Extension Service specialists, equipment manufacturers or other experts.

- A person knowledgeable of the chemigation system and responsible for its operation or under supervision of the responsible person, must shut the system down and make necessary adjustments should the need arise.

Restrictions

- Do not apply this product by chemigation in the states of Idaho, Montana, Oregon and Washington.
- Do not apply by chemigation to any other crop, or to this crop using any other type of irrigation system.
- Do not apply this product through any other type of irrigation system.
- Do not connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system unless the label-prescribed safety devices for public water supplies are in place.
- Do not apply when wind speed favors drift beyond the area intended for treatment.
- Apply this product only through irrigation systems including center pivot, lateral move, end tow, side (wheel) roll, travelers, big gun, solid set, or hand move.
- The system must contain a functional check valve, vacuum relief valve, and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow.
- The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
- The pesticide injection pipeline must also contain a functional, normally close solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
- The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
- The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.
- Systems must use a metering pump, 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.

SPRAY DRIFT MANAGEMENT

SPRAY DRIFT	
Aerial Applications	<ul style="list-style-type: none"> • 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 Applications	<ul style="list-style-type: none"> • 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 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, set up equipment to produce 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 OR WINDLESS CONDITIONS.

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

Table 1. CROP SPECIFIC USE DIRECTIONS AND RESTRICTIONS FOR LIBERTY CLETHODIM 1

Crops ⁽¹⁾	Minimum Time From Application To Harvest (PHI)	Annual Grass Use Rate Per Acre ⁽²⁾	Perennial Grass Use Rate Per Acre ⁽²⁾	Adjuvant Recommendation ⁽³⁾	Ammonium Sulfate Recommendation ⁽⁴⁾
Alfalfa, Seedling	15 days before grazing, feeding or harvesting (cutting) for forage or hay	9 – 16 fl oz	12 – 32 fl oz	Non-ionic Surfactant (NIS) at 0.25% v/v or Crop Oil Concentrate/ Methylated Seed Oil at 1 qt/A or 1% v/v See tank mix label for specific adjuvant recommendations	2.5 – 4 lbs/A

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

Crops ⁽¹⁾	Minimum Time From Application To Harvest (PHI)	Annual Grass Use Rate Per Acre ⁽²⁾	Perennial Grass Use Rate Per Acre ⁽²⁾	Adjuvant Recommendation ⁽³⁾	Ammonium Sulfate Recommendation ⁽⁴⁾
Restrictions: <ul style="list-style-type: none"> Do not apply more than 32 fl oz/A (0.242 lb a.i./A) per application. Do not apply more than 64 fl oz/A (0.485 lb a.i./A) per year. Do not make more than four applications per year. 					
Alfalfa, Established Including: Sainfoin Holy Clover Birdsfoot Trefoil	15 days before grazing, feeding or harvesting (cutting) for forage or hay	12 – 16 fl oz	12 – 32 fl oz	Non-ionic Surfactant (NIS) at 0.25% v/v or Crop Oil Concentrate/ Methylated Seed Oil at 1 qt/A or 1% v/v See tank mix label for specific adjuvant recommendations	2.5 – 4 lbs/A
For repeat applications make on a minimum of a 14 day interval. Restrictions: <ul style="list-style-type: none"> Do not apply more than 32 fl oz/A (0.242 lb a.i./A) per application. Do not apply more than 64 fl oz/A (0.485 lb a.i./A) per year. Do not make more than four applications per year. 					
Artichoke (Globe)	5 days	9 – 16 fl oz	12 – 16 fl oz	Non-ionic Surfactant (NIS) at 0.25% v/v	None
For repeat applications make on a minimum of a 14 day interval. Restrictions: <ul style="list-style-type: none"> Do not apply more than 16 fl oz/A (0.121 lb a.i./A) per application. Do not apply more than 64 fl oz/A (0.485 lb a.i./A) per year. Do not make more than four applications per year. 					
Asparagus	1 day	9 – 16 fl oz	12 – 16 fl oz	Non-ionic Surfactant (NIS) at 0.25% v/v	None
For repeat applications make on a minimum of a 14 day interval. Restrictions: <ul style="list-style-type: none"> Do not apply more than 16 fl oz/A (0.121 lb a.i./A) per application. Do not apply more than 64 fl oz/A (0.485 lb a.i./A) per year. Do not make more than four applications per year. 					
[Dried Shelled Pea and Bean (except Soybean) Subgroup 6C] Bean, Dry except soybean including: Bean (<i>Lupinus</i> spp.) Grain Sweet White White Wweet Bean (<i>Phaseolus</i> spp.) Field Kidney Lima (dry) Navy Pinto Tepary Bean (<i>Vigna</i> spp.) Adzuki Bean	30	9 – 16 fl oz ⁽⁵⁾	12 – 32 fl oz	Non-ionic Surfactant (NIS) at 0.25% v/v	None

Crops ⁽¹⁾	Minimum Time From Application To Harvest (PHI)	Annual Grass Use Rate Per Acre ⁽²⁾	Perennial Grass Use Rate Per Acre ⁽²⁾	Adjuvant Recommendation ⁽³⁾	Ammonium Sulfate Recommendation ⁽⁴⁾
Black-eyed Pea Catjang Cowpea Crowder Pea Moth Bean Mung Bean Rice Bean Southern Pea Urd Bean Broad (dry) Chickpea (garbanzo) Guar Lablab Bean Lentil					
For repeat applications make on a minimum of a 14 day interval. Restrictions: <ul style="list-style-type: none"> Do not apply more than 32 fl oz/A (0.242 lb a.i./A) per application. Do not apply more than 64 fl oz/A (0.485 lb a.i./A) per year. Do not make more than four applications per year. 					
[Succulent Shelled Pea and Bean Subgroup 6B] Bean, Succulent Shelled including: Bean (<i>Phaseolus</i> spp.) Broad Bean (succulent) Lima Bean (green) Bean (<i>Vigna</i> spp.) Black-eyed Pea Cowpea Southern Pea	21 days	9 – 16 fl oz ⁽⁵⁾	12 – 16 fl oz	Non-ionic Surfactant (NIS) at 0.25% v/v	None
Restrictions: <ul style="list-style-type: none"> Do not apply more than 16 fl oz/A (0.121 lb a.i./A) per application. Do not apply more than one (1) application per acre per year. 					
Beet, Garden	30 days	9 – 16 fl oz	12 – 16 fl oz	Non-ionic Surfactant (NIS) at 0.25% v/v	None
For repeat applications make on a minimum of a 14 day interval. Restrictions: <ul style="list-style-type: none"> Do not apply more than 16 fl oz/A (0.121 lb a.i./A) per application. Do not apply more than 64 fl oz/A (0.485 lb a.i./A) per year. Do not make more than four applications per year. 					
[Subgroup 13-07G] Berry Low Growing (except Cranberry and Strawberry) including: Bearberry Billberry Blueberry, Lowbush	45 days	9 – 16 fl oz ⁽⁵⁾	12 – 16 fl oz	Non-ionic Surfactant (NIS) at 0.25% v/v	None

Crops ⁽¹⁾	Minimum Time From Application To Harvest (PHI)	Annual Grass Use Rate Per Acre ⁽²⁾	Perennial Grass Use Rate Per Acre ⁽²⁾	Adjuvant Recommendation ⁽³⁾	Ammonium Sulfate Recommendation ⁽⁴⁾
Cloudberry Lingonberry Muntries Patridgeberry					
<p>For repeat applications make a minimum of a 14 day interval. Verify crop tolerance to this product on a small area of the crop, at the desired labeled rate and with the same Non-ionic Surfactant (NIS) that will be used on the field. If not crop response is evident 7 days after treatment, this product may be used on the entire field at the rate tested and with the same NIS used in the tolerance test.</p> <p>Restrictions:</p> <ul style="list-style-type: none"> Do not apply more than 16 fl oz/A (0.121 lb a.i./A) per application. Do not apply more than 64 fl oz/A (0.485 lb a.i./A) per year. 					
<p>[Head & Stem Brassica Subgroup 5A] Brassica Vegetables, Head & Stem including: Broccoli Brussels Sprouts Cabbage Cauliflower Cavalo Broccolo Chinese Broccoli Chinse (Napa) Cabbage Chinese Mustard Kohlrabi</p>	30 days	9 – 16 fl oz	12 – 16 fl oz	Non-ionic Surfactant (NIS) at 0.25% v/v	None
<p>For repeat applications make on a minimum of a 14 day interval.</p> <p>Restrictions:</p> <ul style="list-style-type: none"> Do not apply more than 16 fl oz/A (0.121 lb a.i./A) per application. Do not apply more than 64 fl oz/A (0.485 lb a.i./A) per year. Do not make more than four applications per year. 					
<p>[Bushberry Subgroup 13-07B] Bushberry including: Aronia Berry, Blueberry, Highbush Chilean Huava Cranberry, Highbush Currant, Black Currant, Buffalo Currant, Native Currant, Red Elderberry European Barberry Gooseberry Honeysuckle Edible Huckleberry Jostaberry Juneberry, Saskatoon Berry Native Currant Salal</p>	14 days	9 – 16 fl oz	12 – 16 fl oz	Non-ionic Surfactant (NIS) at 0.25% v/v	None

Crops ⁽¹⁾	Minimum Time From Application To Harvest (PHI)	Annual Grass Use Rate Per Acre ⁽²⁾	Perennial Grass Use Rate Per Acre ⁽²⁾	Adjuvant Recommendation ⁽³⁾	Ammonium Sulfate Recommendation ⁽⁴⁾
Sea Buckthorn Cultivars, varieties, and/or hybrids of these.					
<p>For repeat applications make on a minimum of a 14 day interval.</p> <p>Restrictions:</p> <ul style="list-style-type: none"> Do not apply more than 16 fl oz/A (0.121 lb a.i./A) per application. Do not apply more than 64 fl oz/A (0.485 lb a.i./A) per year. Do not make more than four applications per year. 					
<p>[Caneberry Subgroup 13-07A] Caneberry including: Blackberry Loganberry Raspberry, Black Raspberry, Red Raspberry, Wild Cultivars, varieties, and/or hybrids of these.</p>	7 days	9 – 16 fl oz	12 – 16 fl oz	Non-ionic Surfactant (NIS) at 0.25% v/v	None
<p>For repeat applications make on a minimum of a 14 day interval.</p> <p>Restrictions:</p> <ul style="list-style-type: none"> Do not apply more than 16 fl oz/A (0.121 lb a.i./A) per application. Do not apply more than 64 fl oz/A (0.485 lb a.i./A) per year. Do not make more than four applications per year. 					
<p>Canola [including Rapeseed Subgroup 20A, except flax seed, mustard seed and sesame seed] (Not for use in California) Borage Crambe Cuphea Echium Gold of Pleasure (Camelina) Hare's Ear Mustard Lesquerella Lunaria Meadowfoam Milkweed Oil Radish Poppy Seed Rapeseed (canola) Sweet Rocket</p>	70 days	9 – 12 fl oz ⁽⁵⁾	12 fl oz	Non-ionic Surfactant (NIS) at 0.25% v/v	None
<p>Verify crop tolerance to this product on a small area of the crop, at the desired labeled rate and with the same Non-ionic Surfactant (NIS) that will be used on the field. If not crop response is evident 7 days after treatment, this product may be used on the entire field at the rate tested and with the same NIS used in the tolerance test.</p> <p>Restrictions:</p> <ul style="list-style-type: none"> Do not apply more than 12 fl oz/A (0.091 lb a.i./A) per application. Do not apply more than 12 fl oz/A (0.091 lb a.i./A) per year. Do not apply after crop has begun bolting. Crop injury may occur when this product is applied during the bloom period. 					

Crops (1)	Minimum Time From Application To Harvest (PHI)	Annual Grass Use Rate Per Acre (2)	Perennial Grass Use Rate Per Acre (2)	Adjuvant Recommendation (3)	Ammonium Sulfate Recommendation (4)
Carrot	30 days	9 – 16 fl oz	12 – 16 fl oz	Non-ionic Surfactant (NIS) at 0.25% v/v	None
<p>For repeat applications make on a minimum of a 14 day interval.</p> <p>Restrictions:</p> <ul style="list-style-type: none"> • Do not apply more than 16 fl oz/A (0.121 lb a.i./A) per application. • Do not apply more than 64 fl oz/A (0.485 lb a.i./A) per year. • Do not make more than four applications per year. 					
Clover	15 days before grazing, feeding or harvesting (cutting) for forage or hay	9 – 16 fl oz	12 – 32 fl oz	Non-ionic Surfactant (NIS) at 0.25% v/v	2.5 to 4 lb/A
<p>For use on clover grown in the states of Idaho, Oregon and Washington only.</p> <p>For repeat applications make on a minimum of a 14 day interval.</p> <p>Restrictions:</p> <ul style="list-style-type: none"> • Do not apply more than 32 fl oz/A (0.242 lb a.i./A) per application. • Do not apply more than 32 fl oz/A (0.242 lb a.i./A) per year. • Do not make more than four applications per year. 					
Corn, Field (6)	90 days	6 fl oz	-	Non-ionic Surfactant (NIS) at 0.25% v/v plus Ammonium Sulfate	2.5 to 4 lb/A
<p>To control existing stand, replant no sooner than 6 days after application.</p> <p>Restrictions:</p> <ul style="list-style-type: none"> • Do not use a Crop Oil Concentrate or Methylated Seed Oil with this product in this use pattern. • Do not make more than 1 application per year. • Do not apply more than 6 fl oz/A (0.045 lb a.i./A) per year. 					
Cotton (including cotton grown for seed)	60 days	9 – 16 fl oz	12 – 32 fl oz	Non-ionic Surfactant (NIS) at 0.25% v/v or Crop Oil Concentrate/ Methylated Seed Oil at 1 qt/A or 1% v/v See tank mix label for specific adjuvant recommendations	2.5 to 4 lb/A
<p>For repeat applications make on a minimum of a 14 day interval.</p> <p>Restrictions:</p> <ul style="list-style-type: none"> • Do not apply more than 32 fl oz/A (0.242 lb a.i./A) per application. • Do not apply more than 64 fl oz/A (0.485 lb a.i./A) per year. • Do not graze treated fields or feed treated forage or hay to livestock. • Do not make more than four applications per year. 					
Cranberry	30 days	9 – 16 fl oz	12 – 16 fl oz	Non-ionic Surfactant (NIS) at 0.25% v/v	None
<p>For repeat applications make on a minimum of a 14 day interval.</p> <p>Restrictions:</p> <ul style="list-style-type: none"> • Do not apply more than 16 fl oz/A (0.121 lb a.i./A) per application. • Do not apply more than 64 fl oz/A (0.485 lb a.i./A) per year. • Do not apply between the “hook” and full fruit set. • Do not make more than four applications per year. 					
[Cucurbit Vegetables Crop Group 9]	14 days	9 – 16 fl oz	12 – 16 fl oz	Non-ionic Surfactant (NIS) at 0.25% v/v	None

Crops ⁽¹⁾	Minimum Time From Application To Harvest (PHI)	Annual Grass Use Rate Per Acre ⁽²⁾	Perennial Grass Use Rate Per Acre ⁽²⁾	Adjuvant Recommendation ⁽³⁾	Ammonium Sulfate Recommendation ⁽⁴⁾
Cucurbits including: Cantaloupes (all) Cucumber Gherkin Honeydew Melon Muskmelons (all) Pumpkin Squash (all) Watermelon					
For repeat applications make on a minimum of a 14 day interval. Restrictions: <ul style="list-style-type: none"> • Do not apply more than 16 fl oz/A (0.121 lb a.i./A) per application. • Do not apply more than 64 fl oz/A (0.485 lb a.i./A) per year. • Do not make more than four applications per year. 					
Fallow Land Conifer Trees (and other non-producing agricultural areas) Non-Crop or Non-Planted Areas	N/A	9 – 16 fl oz	12 – 16 fl oz	Non-ionic Surfactant (NIS) at 0.25% v/v or Crop Oil Concentrate/ Methylated Seed Oil at 1 qt/A or 1% v/v	2.5 to 4 lbs/A
For repeat applications make on a minimum of a 14 day interval. Restrictions: <ul style="list-style-type: none"> • Do not apply more than 32 fl oz/A (0.242 lb a.i./A) per application. • Do not apply more than 64 fl oz/A (0.485 lb a.i./A) per year. • Do not make more than four applications per year. • Do not plant any crop for 30 days after application unless clethodim is registered for use in that crop. 					
Flax (Not for use in California)	60 days	9 – 16 fl oz ⁽⁵⁾	12 – 16 fl oz	Non-ionic Surfactant (NIS) at 0.25% v/v	None
Apply prior to bloom. Crop injury may occur when this product is applied during the bloom period. For repeat applications make on a minimum of a 14 day interval. Restrictions: <ul style="list-style-type: none"> • Do not apply more than 16 fl oz/A (0.121 lb a.i./A) per application. • Do not apply more than 32 fl oz/A (0.242 lb a.i./A) per year. 					
[Fruiting Vegetables (except Tomato) Crop Group 8-10] Fruiting Vegetable (except Tomato) Including: African Eggplant Bush Tomato Bell Pepper Cocona Currant Tomato Eggplant Garden Huckleberry Goji Berry Groundcherry Martynia Naranjilla	20 days	9 – 16 fl oz	12 – 16 fl oz	Non-ionic Surfactant (NIS) at 0.25% v/v	None

Crops ⁽¹⁾	Minimum Time From Application To Harvest (PHI)	Annual Grass Use Rate Per Acre ⁽²⁾	Perennial Grass Use Rate Per Acre ⁽²⁾	Adjuvant Recommendation ⁽³⁾	Ammonium Sulfate Recommendation ⁽⁴⁾
Okra Pea Eggplant Pepino Nonbell Pepper; Roselle Scarlet Eggplant Sunberry Tomatillo Tree Tomato Cultivars, varieites, and/or hybrids of these					
<p>For repeat applications make on a minimum of a 14 day interval.</p> <p>Restrictions:</p> <ul style="list-style-type: none"> • Do not apply more than 16 fl oz/A (0.121 lb a.i./A) per application. • Do not apply more than 64 fl oz/A (0.485 lb a.i./A) per year. • Do not make more than four applications per year. 					
<p>[Subgroup 19A] Herbs including:</p> <p>Angelica Balm Basil Borage Burnet Camomile Catnip Chervil (dried) Chive Chive, Chinese Clary Coriander (leaf) Costmary Culantro (leaf) Curry (leaf) Dill (dillweed) Horehound Hyssop Lavender Lovage (leaf) Marigold Marjoram (<i>Origanum</i> spp.) Nasturtium Parsley (dried) Pennyroyal Rosemary Rue Sage Savory, Summer and Winter Sweet Bay Tansy Tarragon Thyme Wingergreen Woodruff</p>	14 days	9 – 16 fl oz	12 – 16 fl oz	Non-ionic Surfactant (NIS) at 0.25% v/v	None

Crops (1)	Minimum Time From Application To Harvest (PHI)	Annual Grass Use Rate Per Acre (2)	Perennial Grass Use Rate Per Acre (2)	Adjuvant Recommendation (3)	Ammonium Sulfate Recommendation (4)
Wormwood					
<p>For repeat applications make on a minimum of a 14 day interval. This product has not been tested on all herbs, and herb varieties. It is the responsibility of the user to test this product on a small portion of the crop to be treated before treating the entire field. Verify crop tolerance to this product on a small area of the crop, at the desired rate of this product and with the same crop oil concentrate that will be used on the field. If no crop response is evident 7 days after treatment, this product may be used on the entire field at the rate tested and with the same crop oil used in the tolerance test.</p> <p>Restrictions:</p> <ul style="list-style-type: none"> • Do not apply more than 16 fl oz/A (0.121 lb a.i./A) per application. • Do not apply more than 64 fl oz/A (0.485 lb a.i./A) per year. • Do not make more than four applications per year. 					
Hops	21 days	9 – 16 fl oz	12 – 16 fl oz	Non-ionic Surfactant (NIS) at 0.25% v/v	None
<p>For repeat applications make on a minimum of a 14 day interval. Restrictions:</p> <ul style="list-style-type: none"> • Do not apply more than 16 fl oz/A (0.121 lb a.i./A) per application. • Do not apply more than 64 fl oz/A (0.485 lb a.i./A) per year. • Do not make more than four applications per year. 					
Leaf Lettuce	14 days	9 – 16 fl oz	12 – 16 fl oz	Non-ionic Surfactant (NIS) at 0.25% v/v	None
<p>For repeat applications make on a minimum of a 14 day interval. Restrictions:</p> <ul style="list-style-type: none"> • Do not apply more than 16 fl oz/A (0.121 lb a.i./A) per application. • Do not apply more than 64 fl oz/A (0.485 lb a.i./A) per year. • Do not make more than four applications per year. 					
[Subgroup 4B] Leaf Petioles including: Cardoon Celery Celtuce Chinese Celery Fennel, Florence (finochio) Rhubarb Swiss Chard	30 days	9 – 16 fl oz	12 – 16 fl oz	Non-ionic Surfactant (NIS) at 0.25% v/v	None
<p>For repeat applications make on a minimum of a 14 day interval. Restrictions:</p> <ul style="list-style-type: none"> • Do not apply more than 16 fl oz/A (0.121 lb a.i./A) per application. • Do not apply more than 64 fl oz/A (0.485 lb a.i./A) per year. • Do not make more than four applications per year. 					
[Subgroup 5B] Leafy Brassica Greens including: Broccoli Raab Cabbage, Chinese (bok choy) Collards Kale Mizuna Mustard Greens Mustard Spinach Rape Greens	14 days	9 – 16 fl oz	12 – 16 fl oz	Non-ionic Surfactant (NIS) at 0.25% v/v	None
<p>For repeat applications make on a minimum of a 14 day interval. Restrictions:</p> <ul style="list-style-type: none"> • Do not apply more than 16 fl oz/A (0.121 lb a.i./A) per application. 					

Crops ⁽¹⁾	Minimum Time From Application To Harvest (PHI)	Annual Grass Use Rate Per Acre ⁽²⁾	Perennial Grass Use Rate Per Acre ⁽²⁾	Adjuvant Recommendation ⁽³⁾	Ammonium Sulfate Recommendation ⁽⁴⁾
<ul style="list-style-type: none"> Do not apply more than 64 fl oz/A (0.485 lb a.i./A) per year. Do not make more than four applications per year. 					
[Subgroup 4A] Leafy Greens including: Amaranth Chinese Spinach Leafy Amaranth Tampala Arugula (roquette) Chervil Chrysanthemum, Edible-leaved Chrysanthemum, Garland Corn Salad Cress Garden 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 and malabar)	14 days	9 – 16 fl oz	12 – 16 fl oz	Non-ionic Surfactant (NIS) at 0.25% v/v	None
For repeat applications make on a minimum of a 14 day interval. Restrictions: <ul style="list-style-type: none"> Do not apply more than 16 fl oz/A (0.121 lb a.i./A) per application. Do not apply more than 64 fl oz/A (0.485 lb a.i./A) per year. Do not make more than four applications per year. 					
[Subgroup 6A] Legume Vegetables, Edible Podded including: Bean (<i>Phaseolus</i> spp.) Runner Snap Wax Bean (<i>Vigna</i> spp.) Asparagus Chinese Longbean Moth Yardlong	21 days	9 – 16 fl oz ⁽⁵⁾	12 – 16 fl oz	Non-ionic Surfactant (NIS) at 0.25% v/v	None

Crops ⁽¹⁾	Minimum Time From Application To Harvest (PHI)	Annual Grass Use Rate Per Acre ⁽²⁾	Perennial Grass Use Rate Per Acre ⁽²⁾	Adjuvant Recommendation ⁽³⁾	Ammonium Sulfate Recommendation ⁽⁴⁾
Jackbean Edamame, immature soybean Pea (<i>Pisum</i> spp.) Dwarf Edible-pod Snow Sugar Snap Pigeon Sword Bean					
For peas apply before bloom, but no later than 21 days before harvest. Restrictions: <ul style="list-style-type: none"> Do not apply more than 16 fl oz/A (0.121 lb a.i./A) per application. Do not apply more than 1 application per acre per year. 					
Mint	21 days	9 – 16 fl oz	12 – 32 fl oz	Non-ionic Surfactant (NIS) at 0.25% v/v or Crop Oil Concentrated/ Methylated Seed Oil at 1 qt/A or 1% v/v	2.5 to 4 lbs/A
For repeat applications make on a minimum of a 14 day interval. Restrictions: <ul style="list-style-type: none"> Do not apply more than 32 fl oz/A (0.242 lb a.i./A) per application. Do not apply more than 64 fl oz/A (0.485 lb a.i./A) per year. Do not make more than four applications per year. 					
Mustard seed	75 days	9 – 12 fl oz ⁽⁵⁾	12 fl oz	Non-ionic Surfactant (NIS) at 0.25% v/v	None
For repeat applications make on a minimum of a 14 day interval. Restrictions: <ul style="list-style-type: none"> Do not apply after crop has begun bolting. Crop injury may occur when this product is applied during the bloom period. Do not apply more than 12 fl oz/A (0.091 lb a.i./A) per year. 					
[Bulb Onion Subgroup 3-07A] Onions (Dry Bulbs Only) ^(7, 8) Daylily, Bulb Fritillaria Bulb Garlic, Bulb Garlic, Great-headed Bulb Garlic, serpent, Bulb Lily Bulb Onion, Bulb Onion, Chinese, Bulb Onion, Pearl Onion, Potato, Bulb Shallot, Bulb Cultivars, varieties, and/or hybrids of these.	45 days	9 – 16 fl oz	12 – 32 fl oz	Non-ionic Surfactant (NIS) at 0.25% v/v	None
For repeat applications make on a minimum of a 14 day interval. Minimum of 20 gals/A spray volume by ground in the entire U.S.					

Crops ⁽¹⁾	Minimum Time From Application To Harvest (PHI)	Annual Grass Use Rate Per Acre ⁽²⁾	Perennial Grass Use Rate Per Acre ⁽²⁾	Adjuvant Recommendation ⁽³⁾	Ammonium Sulfate Recommendation ⁽⁴⁾
Minimum of 20 gals/A spray volume by air in California. In states other than California, air applications to garlic or onions should be made in a minimum of 10 gals/A. Restrictions: <ul style="list-style-type: none"> Do not apply more than 32 fl oz/A (0.242 lb a.i./A) per application. Do not apply more than 64 fl oz/A (0.485 lb a.i./A) per year. 					
Onions, Green ^(7, 8)	14 days	9 – 16 fl oz	12 – 16 fl oz	Non-ionic Surfactant (NIS) at 0.25% v/v	None
For repeat applications make on a minimum of a 14 day interval. Minimum of 20 gals/A spray volume by air in California. ⁽⁵⁾ In states other than California, air applications to garlic or onions should be made in a minimum of 10 gals/A. ⁽⁷⁾ Restrictions: <ul style="list-style-type: none"> Do not apply more than 16 fl oz/A (0.121 lb a.i./A) per application. Do not apply more than 64 fl oz/A (0.485 lb a.i./A) per year. 					
Ornamentals	N/A	9 – 16 fl oz	12 – 32 fl oz	Non-ionic Surfactant (NIS) at 0.25% v/v	None
Non-Bearing Food Crops	N/A	9 – 16 fl oz	12 – 16 fl oz		
For repeat applications make a minimum of a 14 day interval. Sugar maples cannot be tapped for syrup within one year of an application of this product. Restrictions: <ul style="list-style-type: none"> Do not apply more than 64 fl oz/A (0.485 lb a.i./A) per year. Do not apply more than 16 fl oz/A (0.121 lb a.i./A) in a single application to non-bearing food crops. Do not make more than four applications per year. 					
[Subgroup 6C] Pea, Shelled (<i>Pisum</i> spp.) Field Pigeon	30 days	9 – 16 fl oz ⁽⁵⁾	12 – 16 fl oz	Non-ionic Surfactant (NIS) at 0.25% v/v	None
Apply before bloom but not later than 30 days prior to harvest. ⁽⁹⁾ Restrictions: <ul style="list-style-type: none"> Do not apply more than 16 fl oz/A (0.121 lb a.i./A) per application. Do not apply more than 1 application per acre per year. 					
[Subgroup 6B] Pea, Succulent Shelled (<i>Pisum</i> spp.) English Pea Garden Pea Green Pea Pigeon Pea	21 days	9 – 16 fl oz ⁽⁵⁾	12 – 16 fl oz	Non-ionic Surfactant (NIS) at 0.25% v/v	None
Apply before bloom but not later than 21 days prior to harvest. ⁽⁹⁾ Restrictions: <ul style="list-style-type: none"> Do not apply more than 16 fl oz/A (0.121 lb a.i./A) per application. Do not apply more than 1 application per acre per year. 					
Peanuts (including Perennial)	40 days	9 – 16 fl oz	12 – 32 fl oz	Non-ionic Surfactant (NIS) at 0.25% v/v or Crop Oil Concentrated/ Methylated Seed Oil at 1 qt/A or 1% v/v	2.5 to 4 lbs/A
For repeat applications make on a minimum of a 14 day interval. Restrictions: <ul style="list-style-type: none"> Do not apply more than 32 fl oz/A (0.242 lb a.i./A) per application. 					

Crops ⁽¹⁾	Minimum Time From Application To Harvest (PHI)	Annual Grass Use Rate Per Acre ⁽²⁾	Perennial Grass Use Rate Per Acre ⁽²⁾	Adjuvant Recommendation ⁽³⁾	Ammonium Sulfate Recommendation ⁽⁴⁾
<ul style="list-style-type: none"> Do not apply more than 64 fl oz/A (0.485 lb a.i./A) per year, except in Florida where the limit is 64 fl oz/A (0.485 lb a.i./A) per year (perennial peanuts only). Do not make more than four applications per year. 					
[Crop Group 11-10] Pome Fruit (including) Apple Azarole Crabapple Loquat Mayhaw Medlar Pear Pear, Asian Quince Quince, Chinese Quince, Japanese Tejocote	14 days	9 – 16 fl oz	12 – 16 fl oz	Non-ionic Surfactant (NIS) at 0.25% v/v	None
For repeat applications make on a minimum of a 14 day interval. Restrictions: <ul style="list-style-type: none"> Do not apply more than 16 fl oz/A (0.121 lb a.i./A) per application. Do not apply more than 64 fl oz/A (0.485 lb a.i./A) per year. Do not make more than four applications per year. 					
Potato	30 days	9 – 16 fl oz	12 – 32 fl oz	Non-ionic Surfactant (NIS) at 0.25% v/v or Crop Oil Concentrated/ Methylated Seed Oil at 1 qt/A or 1% v/v	2.5 to 4 lbs/A
For repeat applications make on a minimum of a 14 day interval. Restrictions: <ul style="list-style-type: none"> Do not apply more than 32 fl oz/A (0.242 lb a.i./A) per application. Do not apply more than 64 fl oz/A (0.485 lb a.i./A) per year. Do not make more than four applications per year. 					
Radish	15 days	9 – 16 fl oz	12 – 16 fl oz	Non-ionic Surfactant (NIS) at 0.25% v/v	None
For repeat applications make on a minimum of a 14 day interval. Restrictions: <ul style="list-style-type: none"> Do not apply more than 16 fl oz/A (0.121 lb a.i./A) per application. Do not apply more than 32 fl oz/A (0.242 lb a.i./A) per year. Do not make more than four applications per year. 					
[Subgroup 1A] Root Vegetables (except Sugar Beet and Radish) ⁽¹⁰⁾	30 days	9 – 16 fl oz	12 – 16 fl oz	Non-ionic Surfactant (NIS) at 0.25% v/v	None
For repeat applications make on a minimum of a 14 day interval. Restrictions: <ul style="list-style-type: none"> Do not apply more than 16 fl oz/A (0.121 lb a.i./A) per application. Do not apply more than 64 fl oz/A (0.485 lb a.i./A) per year. Do not make more than four applications per year. 					
Safflower	70 days	9 – 16 fl oz	12 – 16 fl oz	Non-ionic Surfactant (NIS) at 0.25% v/v	None
For repeat applications make on a minimum of a 14 day interval. Restrictions:					

Crops ⁽¹⁾	Minimum Time From Application To Harvest (PHI)	Annual Grass Use Rate Per Acre ⁽²⁾	Perennial Grass Use Rate Per Acre ⁽²⁾	Adjuvant Recommendation ⁽³⁾	Ammonium Sulfate Recommendation ⁽⁴⁾
<ul style="list-style-type: none"> Do not apply more than 16 fl oz/A (0.121 lb a.i./A) per application. Do not apply more than 64 fl oz/A (0.485 lb a.i./A) per year. Do not make more than four applications per year. 					
Sesame	14 days	9 – 16 fl oz	12 – 16 fl oz	Non-ionic Surfactant (NIS) at 0.25% v/v	None
<p>For repeat applications make on a minimum of a 14 day interval.</p> <p>Restrictions:</p> <ul style="list-style-type: none"> Do not apply during flowering. Do not apply more than 16 fl oz/A (0.121 lb a.i./A) per application. Do not apply more than 64 fl oz/A (0.485 lb a.i./A) per year. Do not make more than four applications per year. 					
Soybean ⁽¹¹⁾	60 days	9 – 16 fl oz ⁽⁵⁾	12 – 32 fl oz	Non-ionic Surfactant (NIS) at 0.25% v/v or Crop Oil Concentrated/ Methylated Seed Oil at 1 qt/A or 1% v/v See tank mix label for specific adjuvant recommendations.	2.5 to 4 lbs/A
<p>For repeat applications make on a minimum of a 14 day interval.</p> <p>Restrictions:</p> <ul style="list-style-type: none"> Do not apply more than 32 fl oz/A (0.242 lb a.i./A) per application. Do not apply more than 64 fl oz/A (0.485 lb a.i./A) per year. Do not graze treated fields or feed treated forage or hay to livestock. Do not make more than four applications per year. 					
Stevia (dried leaves)	14 days	9 – 16 fl oz	12 – 16 fl oz	Non-ionic Surfactant (NIS) at 0.25% v/v	None
<p>For repeat applications make on a minimum of a 14 day interval.</p> <p>This product has not been tested on all varieties. It is the responsibility of the user to test this product on a small portion of the crop to be treated before treating the entire field.</p> <p>Verify crop tolerance to this product on a small area of the crop, at the desired rate and with the same Non-ionic Surfactant (NIS) that will be used on the field. If no crop response is evident 7 days after treatment, this product may be used on the entire field at the rate tested and with the same NIS used in the tolerance test.</p> <p>Restrictions:</p> <ul style="list-style-type: none"> Do not apply more than 16 fl oz/A (0.121 lb a.i./A) per application. Do not apply more than 64 fl oz/A (0.485 lb a.i./A) per year. 					
[Crop Group 12-12] Stone Fruit Including: Apricot Apricot, Japanese Capulin Cherry, Black Cherry, Nanking Cherry, Sweet Cherry, Tart; Jujube, Chinese Nectarine Peach Plum Plum, American Plum, Beach Plum, Canada,	14 days	9 – 16 fl oz	12 – 16 fl oz	Non-ionic Surfactant (NIS) at 0.25% v/v	None

Crops (1)	Minimum Time From Application To Harvest (PHI)	Annual Grass Use Rate Per Acre (2)	Perennial Grass Use Rate Per Acre (2)	Adjuvant Recommendation (3)	Ammonium Sulfate Recommendation (4)
Plum, Cherry Plum, Chickasaw Plum, Damson Plum, Japanese Plum Klamath Plum, Prune Plumcot Sloe					
For repeat applications make on a minimum of a 14 day interval. Restrictions:					
<ul style="list-style-type: none"> • Do not apply more than 16 fl oz/A (0.121 lb a.i./A) per application. • Do not apply more than 64 fl oz/A (0.485 lb a.i./A) per year. • Do not make more than four applications per year. 					
Strawberry	4 days	9 – 16 fl oz	12 – 16 fl oz	Non-ionic Surfactant (NIS) at 0.25% v/v	None
For repeat applications make on a minimum of a 14 day interval. Restrictions:					
<ul style="list-style-type: none"> • Do not apply more than 16 fl oz/A (0.121 lb a.i./A) per application. • Do not apply more than 64 fl oz/A (0.485 lb a.i./A) per year. • Do not make more than four applications per year. 					
Sugar Beet	40 days	9 – 16 fl oz (5)	12 – 32 fl oz	Non-ionic Surfactant (NIS) at 0.25% v/v or Crop Oil Concentrated/ Methylated Seed Oil at 1 qt/A or 1% v/v See tank mix label for specific adjuvant recommendations.	2.5 to 4 lbs/A
For repeat applications make on a minimum of a 14 day interval. Restrictions:					
<ul style="list-style-type: none"> • Do not apply more than 32 fl oz/A (0.242 lb a.i./A) per application. • Do not apply more than 64 fl oz/A (0.485 lb a.i./A) per year. • Do not make more than four applications per year. 					
[Subgroup 20B] Sunflower Including: Calendula Castoril Plant Chinese Tallowtree Euphorbia Evening Primrose Jojoba Niger Seed Rose Hip Stokes Aster Tallowwood Tea Oil Plant Vernonia	70 days	9 – 16 fl oz (5)	12 – 32 fl oz	Non-ionic Surfactant (NIS) at 0.25% v/v or Crop Oil Concentrated/ Methylated Seed Oil at 1 qt/A or 1% v/v See tank mix label for specific adjuvant recommendations.	2.5 to 4 lbs/A
For repeat applications make on a minimum of a 14 day interval. Verify crop tolerance to this product on a small area of the crop, at the desired rate and with the same crop oil concentrate that will be used on the field. If no crop response is evident 7 days after treatment, this product may be used on the entire field at the rate tested and with the same crop oil used in the tolerance test. Restrictions:					
<ul style="list-style-type: none"> • Do not apply more than 32 fl oz/A (0.242 lb a.i./A) per application. 					

Crops ⁽¹⁾	Minimum Time From Application To Harvest (PHI)	Annual Grass Use Rate Per Acre ⁽²⁾	Perennial Grass Use Rate Per Acre ⁽²⁾	Adjuvant Recommendation ⁽³⁾	Ammonium Sulfate Recommendation ⁽⁴⁾
<ul style="list-style-type: none"> Do not apply more than 64 fl oz/A (0.485 lb a.i./A) per year. Do not make more than four applications per year. 					
[Subgroup 1D] Sweet Potato , Yam and other tuberous and corm vegetables (except potato) ⁽¹²⁾	30 days	9 – 16 fl oz	12 – 16 fl oz	Non-ionic Surfactant (NIS) at 0.25% v/v	None
For repeat applications make on a minimum of a 14 day interval. Restrictions: <ul style="list-style-type: none"> Do not apply more than 32 fl oz/A (0.242 lb a.i./A) per application. Do not apply more than 64 fl oz/A (0.485 lb a.i./A) per year. Do not make more than four applications per year. 					
Tomato	20 days	9 – 16 fl oz	12 – 16 fl oz	Non-ionic Surfactant (NIS) at 0.25% v/v	None
For repeat applications make on a minimum of a 14 day interval. Restrictions: <ul style="list-style-type: none"> Do not apply more than 32 fl oz/A (0.242 lb a.i./A) per application. Do not apply more than 64 fl oz/A (0.485 lb a.i./A) per year. Do not make more than four applications per year. 					
Turnip Greens	14 days	9 – 16 fl oz	12 – 16 fl oz	Non-ionic Surfactant (NIS) at 0.25% v/v	None
For repeat applications make on a minimum of a 14 day interval. Restrictions: <ul style="list-style-type: none"> Do not apply more than 16 fl oz/A (0.121 lb a.i./A) per application. Do not apply more than 64 fl oz/A (0.485 lb a.i./A) per year. Do not make more than four applications per year. 					

N/A = Not Applicable

- (1) This product is not specified for use on vegetable crops being grown for seed production unless specific use directions are provided.
- (2) See annual and perennial grass control tables for specific use rate directions.
- (3) Non-ionic surfactant (NIS) in this case refers to an adjuvant containing at least 80% non-ionic surfactant. Crop oil concentrate in this case refers to both crop oil concentrate and crop oil concentrate blends. **Acceptable crop oil concentrates** would be those that contain a minimum of 80% oils and 15% emulsifier. **Acceptable crop oil concentrate blends** would be those that contain a minimum of 60% oils and 25-40% surfactants and emulsifiers. A crop oil concentrate must contain either a petroleum or vegetable oil base and must meet all the following criteria: be non-phytotoxic, contain only EPA-exempt ingredients, provide good mixing quality and be successful in local experience. Highly refined vegetable oils have proven more satisfactory than unrefined vegetable oils.
- (4) Use spray grade ammonium sulfate. The use of ammonium sulfate does not take the place of the required adjuvant.
- (5) See DIRECTIONS FOR REDUCED RATE USE TO CONTROL SMALL ANNUAL GRASSES table.
- (6) 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.
- (7) If this product is applied as a spot treatment to garlic, onion or non-bearing food crops care do not exceed the maximum rate allowed on a “per acre” basis or crop injury may occur.
- (8) In California, do not apply this product to garlic or onions until crop has at least two full leaves. In California, 14 days spray intervals are advised between the application of this product and liquid nitrogen or other herbicide applications. Injury to crop may occur when shorter intervals are observed.
- (9) Applications of this product to peas during the bloom period could result in severe crop injury, including loss of yield and delayed maturity.

- (10) Other root vegetables approved for use with this product include: burdock, edible; celeriac; chervil, turnip-rooted; chicory; ginseng; parsley, turnip-rooted; parsnip; radish, oriental; rutabaga; salsify; salsify, black; salsify, Spanish; skirret and turnip.
- (11) See LIBERTY CLETHODIM 1 TANK MIX WITH BROADLEAF HERBICIDES FOR THE CONTROL OF VOLUNTEER CORN (INCLUDING ROUNDUP READY) IN SOYBEAN.
- (12) Other tubereous and corm vegetables approved for use with this product include: arracacha, arrowroot, Chinese artichoke, Jerusalem artichoke, edible canna, cassava, bitter and sweet chayote (root), chufa, dasheen (taro), ginger, leren, tanier, turmeric and bean yam.

**USE DIRECTIONS FOR ANNUAL GRASSES
(ALL CROPS)**

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

Restrictions

- Do not exceed the maximum per application rate listed in **Table 1**.
- Do not exceed the maximum yearly rate listed in **Table 1**.
- Do not exceed the maximum number of yearly applications listed in **Table 1**.

GRASS SPECIES	SCIENTIFIC NAME	WEED HEIGHT* (inches)	APPLICATION RATES	
			MINIMUM RATE fl oz/A	MAXIMUM RATE (1) fl oz/A
Barnyardgrass	<i>Echinochloa crus-galli</i>	2 to 8	9	16
Broadleaf Signalgrass	<i>Brachiaria platyphlla</i>	2 to 6	9	16
Brome				
California	<i>Bromus carinatus</i>	2 to 6	9	16
Cheat	<i>Bromus secalinus</i>	2 to 6	9	16
Downy	<i>Bromus tectorum</i>	2 to 6	9	16
Ripgut	<i>Bromus diandrus</i>	2 to 6	9	16
Canarygrass	<i>Phalaris canariensis</i>	1 to 4	9	16
Crabgrass				
Hairy	<i>Digitaria adscendens</i>	2 to 6**	9	16
Large	<i>Digitaria sanguinalis</i>	2 to 6**	9	16
Smooth	<i>Digitaria ischaemum</i>	2 to 6**	9	16
Southern	<i>Digitaria ciliaris</i>	2 to 6**	9	16
Crowfootgrass	<i>Dactyloctenium aegyptium</i>	2 to 6**	9	16
Fall Panicum	<i>Panicum dichotomiflorum</i>	2 to 8	9	16
Field Sandbur	<i>Cenchrus incertus</i>	2 to 6	9	16
Foxtail				
Giant	<i>Setaria feberi</i>	2 to 12	9	16
Green	<i>Setaria viridis</i>	2 to 8	9	16
Yellow	<i>Setaria glauca</i>	2 to 8	9	16
Goosegrass	<i>Eleusine indica</i>	2 to 6**	9	16
Itchgrass	<i>Rottboellia cochinchinensis</i>	2 to 6	9	16
Junglerice	<i>Echinochloa colona</i>	2 to 6	9	16
Lovegrass (Stinkgrass)	<i>Eragrostis cilianensis</i>	2 to 6	9	16
Rabbitsfootgrass	<i>Polypogon monspeliensis</i>	1 to 4	9	16
Red Rice	<i>Oryza sativa</i>	1 to 3	9	16
Ryegrass				
Hardy	<i>Lolium remotum</i>	2 to 6	9	16
Italian	<i>Lolium multiflorum</i>	2 to 6	9	16
Seedling Johnsongrass	<i>Sorghum halepense</i>	4 to 10	9	16

GRASS SPECIES	SCIENTIFIC NAME	WEED HEIGHT* (inches)	APPLICATION RATES	
			MINIMUM RATE fl oz/A	MAXIMUM RATE ⁽¹⁾ fl oz/A
Shattercane	<i>Sorghum bicolor</i>	6 to 18	9	16
Southwestern Cupgrass	<i>Eriochloa gracilis</i>	2 to 6	9	16
Sprangle top				
Amazon	<i>Leptochloa panicoides</i>	2 to 6	9	16
Bearded	<i>Leptochloa fascicularis</i>	2 to 6	9	16
Mexican	<i>Leptochloa uninervia</i>	2 to 6	9	16
Red	<i>Leptochloa filiformis</i>	2 to 6	9	16
Texas Panicum	<i>Panicum texanum</i>	2 to 6	9	16
Volunteer Cereals ⁽³⁾				
Barley	<i>Hordeum vulgare</i>	2 to 6	9	16
Oats	<i>Avena sativa</i>	2 to 6	9	16
Rye	<i>Secale cereal</i>	2 to 6	9	16
Wheat ⁽²⁾	<i>Triticum aestivum</i>	2 to 6	9 ⁽²⁾	16
Volunteer Corn ^(2,3)	<i>Zea mays</i>	Up to 12	6	12
Volunteer Corn ⁽³⁾	<i>Zea mays</i>	Up to 24	9	14
Volunteer Corn ^(2,3)	<i>Zea mays</i>	Up to 36	12	16
Volunteer Grain Sorghum	<i>Sorghum bicolor</i>	8 to 12	9	16
Wild Oats	<i>Avena fatua</i>	2 to 6	9	16
Wild Proso Millet	<i>Panicum miliaceum</i>	2 to 10	9	16
Witchgrass	<i>Panicum capillare</i>	2 to 8	9	16
Woolly Cupgrass	<i>Eriochloa villosa</i>	2 to 8	9	16

* Generally occurs between 3-leaf stage and tillering.

** Length of lateral growth.

⁽¹⁾ Rates higher than 16 fl oz/A (0.121 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 16 to 32 fl oz/A ((0.121 to 0.242 lb a.i./A) may be applied.

Restrictions

- Do not apply more than 16 fl oz/A (0.121 lb a.i./A) of this product per application to the following crops: garden beets, berry low growing (except cranberry and strawberry), bushberry, broccoli, cabbage, caneberry, carrot, cauliflower (and other head and stem brassica vegetables), celery, cranberry, cucurbits, flax, fruiting vegetables (except tomato), green onion, herbs, hops, leaf lettuce, legume vegetables, pea succulent shelled, pome fruit, radish (and other root vegetables), rhubarb (and other leaf petioles), safflower, sesame, stevia (dried leaves), stone fruit, strawberry, turnip greens and non-bearing food crops.
 - Do not apply more than 12 fl oz/A (0.091 lb a.i./A) of this product per application to canola or mustard seed.
- ⁽²⁾ When a cereal grain crop (including wheat) is interseeded for crop establishment or is planted as wind breaks to aid crop establishment, the minimum use rate of this product for control is 12 fl oz/A (0.091 lb a.i./A).
- ⁽³⁾ Includes Roundup Ready®, Liberty Link®, and Clearfield® volunteer corn; however, not Sethoxydim-resistant volunteer corn.

**USE DIRECTIONS FOR ANNUAL & PERENNIAL GRASS CONTROL
IN ESTABLISHED ALFALFA AND MINT WITH LIBERTY CLETHODIM 1**

GRASS SPECIES	WEED SPECIES AND SIZE	APPLICATION RATES
Annual & Perennial Grasses Listed in Grass Table	See Tables	See Table 1
Mowing: The best control of annual grasses can be achieved by applying this product before grass weeds are mowed. Once grass is mowed it becomes tougher to control, as much of the available leaf surface has		

been removed. In areas without a killing frost, some annuals can over-winter after having been mowed multiple times. These grasses form large crowns and may contain many viable buds. These grasses, even though they may be an annual grass, may require repeated applications of this product for partial or complete control.

Irrigated Alfalfa and Mint: Irrigation practices can be very critical to the successful use of LIBERTY CLETHODIM 1 in established alfalfa and mint and may be necessary to initiate active growth of the weeds prior to application. Generally, applications 2 to 4 days after irrigation are most effective. Irrigation made shortly after application (2 days) can be effective, but more consistent grass control occurs when the irrigation is made before the application.

Aerial Application: Apply this product in a minimum of 10 GPA in established alfalfa and mint when applying by air.

Annual Grass Control: Apply this product at the grass sizes indicated in the **Annual Grass Table** and rates indicated. If a grass has been cut, apply this product after active growth has resumed and regrowth has reached the minimum height and before it reaches 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 this product 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: This product effectively controls perennial grasses including Bermudagrass, Johnsongrass, quackgrass, wirestem muhly, tall fescue, foxtail barley and orchardgrass. Due in part to lack of tillage, perennial grasses are more difficult to control in a perennial crop 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.

**DIRECTIONS FOR REDUCED RATE USE TO CONTROL SMALL ANNUAL GRASSES
CANOLA, FLAX, LEGUME VEGETABLES (DRY AND SUCCULENT), MUSTARD SEED,
SOYBEAN, SUGAR BEET AND SUNFLOWER
(REDUCED RATE DIRECTIONS NOT FOR USE IN CALIFORNIA)**

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

Restrictions

- Do not apply more than the rate listed below per application.
- Do not exceed the maximum yearly rate listed in **Table 1**.
- Do not exceed the maximum number of yearly applications listed in **Table 1**.

GRASS SPECIES	SCIENTIFIC NAME	WEED HEIGHT (inches)	RATE FL. OZ./ ACRE
Barnyardgrass	<i>Echinochloa crus-galli</i>	1 to 4	6
Broadleaf Signalgrass	<i>Brachiaria platyphlla</i>	1 to 4	8
Crabgrass			
Large	<i>Digitaria sanguinalis</i>	1 to 3*	6
Large	<i>Digitaria sanguinalis</i>	1 to 4*	8
Smooth	<i>Digitaria ischaemum</i>	1 to 3*	6
Smooth	<i>Digitaria ischaemum</i>	1 to 4*	8

Southern	<i>Digitaria ciliaris</i>	1 to 4*	8
Fall Panicum	<i>Panicum dichotomiflorum</i>	1 to 4	6
Foxtail			
Giant	<i>Setaria faberi</i>	1 to 4	6
Green	<i>Setaria viridis</i>	1 to 4	6
Millet	<i>Setaria italic</i>	1 to 4	8
Yellow	<i>Setaria glauca</i>	1 to 4	6
Seedling Johnsongrass	<i>Sorghum halepense</i>	1 to 6	8
Shattercane	<i>Sorghum bicolor</i>	4 to 10	6
Texas Panicum	<i>Panicum texanum</i>	1 to 4	8
Volunteer Cereals			
Barley	<i>Hordeum vulgare</i>	1 to 4	8
Oats	<i>Avena sativa</i>	1 to 4	8
Wheat	<i>Triticum aestivum</i>	1 to 4	8
Volunteer Corn**	<i>Zea mays</i>	4 to 12	6
Wild Proso Millet	<i>Panicum miliaceum</i>	1 to 6	6
Wild Oats	<i>Avena fatua</i>	1 to 4	8

* Length of lateral growth

** Not S.R. Corn

(1) Always add a crop oil concentrate at 0.25% v/v total spray volume unless crop specific restrictions and limitations advise otherwise.

USE DIRECTIONS FOR PERENNIAL GRASSES (ALL CROPS)

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

Restrictions

- Do not exceed the maximum per application rate listed in **Table 1**.
- Do not exceed the maximum yearly rate listed in **Table 1**.
- Do not exceed the maximum number of yearly applications listed in **Table 1**.

GRASS SPECIES	WEED HEIGHT (inches)	APPLICATION RATE	
		MINIMUM RATE fl oz/A	MAXIMUM RATE fl oz/A
Bermudagrass (<i>Cynodon dactylon</i>)			
First Application	3 (or up to 6" runners)	12	32
Repeat Application(s) (if regrowth occurs)	3 (or up to 6" runners)	12	32
Fescue, Tall (<i>Festuca arundinacea</i>)			
First Application	4 – 8	12	32
Repeat Application(s) (if regrowth occurs)	4 – 8	12	32
Foxtail Barley (<i>Hordeum jubatum</i>)			
First Application	2 – 6	12	32
Repeat Application(s) (if regrowth occurs)	2 – 6	12	32
Orchardgrass (<i>Dactylis glomerata</i>)			
First Application	4 – 8	12	32
Repeat Application(s) (if regrowth occurs)	4 – 8	12	32

Quackgrass (<i>Elytrigia repens</i>) First Application Repeat Application(s) (if regrowth occurs)	4 – 12 4 – 12	12 12	32 32
Rhizome Johnsongrass (<i>Sorghum halepense</i>) First Application Repeat Application(s) (if regrowth occurs)	12 – 24 6 – 18	12 9	32 24
Wirestem Muhly (<i>Muhlenbergia frondosa</i>) First Application Repeat Application(s) (if regrowth occurs)	4 – 8 4 – 8	12 12	32 32
Perennial Bluegrass [Roughstalk (<i>Poa trivialis</i>)] [Kentucky (<i>Poa prantensis</i>)] First Application Repeat Application(s)	2 – 4 2 – 4	12 12	32 32
Bentgrass (<i>Agrostis</i> spp.) First Application Repeat Application(s) (if regrowth occurs)	2 – 4 2 – 4	- -	32 32

**USE DIRECTIONS FOR ANNUAL BLUEGRASS CONTROL WITH LIBERTY CLETHODIM 1
(ALL CROPS)**

GRASS SPECIES	WEED STAGE	RATE FL. OZ./ ACRE	HIGH RATE
Annual Bluegrass (<i>Poa annua</i>)	to 4-leaf	12*	**
<p>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. See Table 1 for crop specific adjuvant recommendations.</p> <p>* Use a minimum of 17 fl oz/A to control annual bluegrass in seedling and established alfalfa and mint. ** See Special Use Instructions and Restrictions in Table 1.</p>			

**DIRECTIONS FOR USE IN ROUNDUP READY FIELD CORN (BURNDOWN)
(Not for Use in California)**

GRASS SPECIES	Weed Size (Inches)	APPLICATION RATES
		Rate when applied alone or with glyphosate
Field Corn	Up to 12	6 fl oz/A
<p>For control of existing stand of Roundup Ready field corn or volunteer Roundup Ready field corn prior to replanting field corn. Care must be taken to avoid in field boom (spray) overlaps or excessive crop injury may occur. Replant no sooner than 6 days after application. Adjuvant recommendations: NIS at 0.25% v/v plus AMS at 2.5 to 4 lb/A. Restriction • Do not use a COC or MSO with this product in this use pattern.</p>		

TANK MIXES - PRODUCT INFORMATION

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

TANK MIX APPLICATION OF LIBERTY CLETHODIM 1 AND BROADLEAF HERBICIDES FOR CONTROL OF GRASSES AND BROADLEAF WEEDS

- Apply only to actively growing grass and broadleaf weeds at specified height or growth stage listed on each label.
- Apply when the first grass or broadleaf weed species in a mixed population reaches the specified height or growth stage for treatment.
- Apply under favorable soil moisture and humidity that exist a few days after rainfall or within seven days after irrigation.
- Always add the appropriate adjuvant to the spray mix at the rate listed 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 LIBERTY CLETHODIM 1, as specified in the respective size and rate tables.
- **Restriction:** Do not tank mix LIBERTY CLETHODIM 1 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 LIBERTY CLETHODIM 1. Agitation should create a rippling or rolling action on the water surface.
3. If tank mixing LIBERTY CLETHODIM 1 with other labeled herbicides, add water soluble bags first, followed by dry formulations, flowables, emulsifiable concentrates, and then solutions. Prepare no more spray mixture than is required for the immediate spray operation.
4. Add any required adjuvants (crop oil concentrate, non-ionic surfactant and/or nitrogen solution).
5. Fill spray tank to desired level with water. Agitation should continue until all spray solution has been applied.

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

INFORMATION ON ANTAGONISM

Tank mixes of LIBERTY CLETHODIM 1 with postemergence broadleaf herbicides have shown some reduction or failure to control certain grass species which would have otherwise been controlled when LIBERTY CLETHODIM 1 is applied alone. Activity of the postemergence broadleaf herbicide in the tank mix is not affected.

ALFALFA

Table 2. LIBERTY CLETHODIM 1 TANK MIXES WITH BROADLEAF HERBICIDES FOR ALFALFA (Refer to tables above for specific grasses and growth stages)

It is the pesticide user's responsibility to ensure that all products in the listed mixtures are registered for the intended use. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

PRODUCT ⁽¹⁾	APPLICATION RATES/ACRE ⁽²⁾		SPRAY ADDITIVES			
	ANNUAL GRASSES	PERENNIAL GRASSES	GROUND APPLICATION		AIR APPLICATION	
			Adjuvant Recommendation	AMS	Adjuvant Recommendation	AMS
LIBERTY CLETHODIM 1 + 2,4-DB ⁽³⁾	12 to 32 fl oz + See 2,4-DB label for application rate.	16 to 32 fl oz + See 2,4-DB label for application rate.	NIS at 0.25% v/v	AMS at 2.5 lb/A	NIS at 0.25% v/v	17 lb/100 gals of spray solution
LIBERTY CLETHODIM 1 + Bromoxynil ^(4,5)	12 to 32 fl oz + See Bromoxynil label for application rate.	-				
LIBERTY CLETHODIM 1 + Imazamox	12 to 32 fl oz + See Imazamox label for application rate.	-				
LIBERTY CLETHODIM 1 + Imazethapyr ⁽⁶⁾	12 to 32 fl oz + See Imazethapyr label for application rate.	-				

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

⁽²⁾ If grass regrowth occurs or an additional flush of new grass emerges, make a second application of this product alone (without a tank mix herbicide), according to the appropriate size and rate directions.

⁽³⁾ This product plus 2,4-DB may increase the severity of crop injury when tank mixed. Alfalfa plants will generally outgrow this temporary crop injury within a few weeks.

⁽⁴⁾ In the states of Washington, Oregon, Idaho, Montana, Wyoming, Colorado, Utah, Nevada and the western halves of North Dakota, South Dakota, Nebraska, and Kansas: This product plus Bromoxynil tank mix must be applied in the fall or spring to seedling alfalfa when the majority of the field has a minimum of 2 trifoliates. Unacceptable crop injury may occur to alfalfa seedlings less than the 2 trifoliolate leaf stage. This product plus Bromoxynil applications made when temperatures are expected to exceed 80°F at (and 3 days following) application can result in unacceptable crop injury. In the states not listed above, apply in the fall or spring to seedling alfalfa when the majority of the field has a minimum of 4 trifoliolate leaves. When the alfalfa stand is uneven and conditions favor leaf burn, unacceptable crop injury may occur to alfalfa in the 2 trifoliolate or smaller stage of growth. This product plus Bromoxynil 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 applications of this product plus Bromoxynil. Warm, humid conditions may enhance leaf burn. New crop growth will not be affected.

⁽⁵⁾ **Restriction:** Do not apply when alfalfa is under moisture, temperature, insect or disease stress or has been stressed by other pesticide carryover or application.

⁽⁶⁾ Before using this tank mix, read and understand the Imazethapyr label for geographical restrictions and restrictions regarding alfalfa growth stage and type. Failure to do so can result in crop injury to alfalfa. Do not feed, graze, or harvest alfalfa for 30 days following an application of Imazethapyr to alfalfa.

BUSHBERRY, CANEBERRY, POME FRUIT AND STONE FRUIT

Apply LIBERTY CLETHODIM 1 postemergence to actively growing grasses according to prescribed rates in **Table 1**. Crop injury to bushberry, caneberry, pome fruit and stone fruit can occur if this product is improperly applied. LIBERTY CLETHODIM 1 must not be applied directly over the top of these plant types. Instead spray must be directed at the base of the plant where grassy weeds are growing near the ground.

Non-bearing fruit and nut crops are plants which will not bear fruit or nuts for at least one year following LIBERTY CLETHODIM 1 application.

Restriction

- Do not apply this product to bushberry, caneberry, pome fruit or stone fruit grown for root stock.

CANOLA (Except Flax)

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

Table 3. REDUCED RATE LIBERTY CLETHODIM 1 TANK MIXES WITH BROADLEAF HERBICIDES (Refer to the tables above for specific grasses and growth stages.)

It is the pesticide user's responsibility to ensure that all products in the listed mixtures are registered for the intended use. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

PRODUCT	APPLICATION RATE/ACRE	ADJUVANT	AMMONIUM SULFATE	
	ANNUAL GRASSES ⁽¹⁾		GROUND	AIR
LIBERTY CLETHODIM 1 ⁽²⁾ + Glufosinate-Ammonium ⁽³⁾	8 to 10 fl oz + See Glufosinate-ammonium label for application rate.	NIS at 0.25% v/v	3.0 lb/A	3.0 lb/A
LIBERTY CLETHODIM 1 ⁽²⁾ + Clopyralid ⁽⁴⁾	8 to 10 fl oz + See Clopyralid label for application rate.			

⁽¹⁾ Annual grasses and sizes controlled with these tank mixtures are those that are identified in the DIRECTIONS FOR REDUCED RATE TO CONTROL SMALL ANNUAL GRASSES table.

⁽²⁾ **Restriction:** Do not apply a tank mix including this product during or after bolting or flowering or crop injury may occur.

⁽³⁾ For use only on LibertyLink® canola.

⁽⁴⁾ See clopyralid label for weeds controlled.

COTTON (Including cotton grown for seed)

Table 4. LIBERTY CLETHODIM 1 TANK MIXED WITH LACTOFEN AND MSMA APPLIED POST DIRECTED TO COTTON

It is the pesticide user's responsibility to ensure that all products in the listed mixtures are registered for the intended use. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

PRODUCT ⁽¹⁾	APPLICATION RATES/ACRE ⁽²⁾		CROP OIL CONCENTRATE ⁽³⁾ V/V
	ANNUAL GRASSES	PERENNIAL GRASSES	GROUND
LIBERTY	12 to 16 fl oz	16 to 32 fl oz	1%

CLETHODIM 1 ⁽⁴⁾ + Lactofen + MSMA	See Lactofen label for rates to control broadleaf weeds and height limitations for cotton. Refer to this product's label for weed height and species controlled.
	See MSMA label for rates to control broadleaf weeds and height limitations for cotton. Refer to this product's label for weed height and species controlled.
Reduce broadcast rate in proportion to the band area actually treated.	

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

Table 5. LIBERTY CLETHODIM 1 TANK MIXED WITH GLYPHOSATE TO CONTROL EMERGED GRASSES IN COTTON AS A BROADCAST APPLICATION

It is the pesticide user's responsibility to ensure that all products in the listed mixtures are registered for the intended use. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

PRODUCT	APPLICATION RAES/ACRE ⁽¹⁾		ADJUVANT	
	ANNUAL GRASSES	PERENNIAL GRASSES	Glyphosate formulation with built in adjuvant	Glyphosate formulation without built in adjuvant
LIBERTY CLETHODIM 1 + Glyphosate	9 - 16 fl oz See glyphosate label for rates to control broadleaf weeds and height limitations for cotton.	12 - 32 fl oz.	AMS at 8.5 to 17 lb per 100 gals of carrier plus glyphosate label adjuvant recommendation	AMS at 8.5 to 17 lb per 100 gals of carrier plus NIS at 0.25% v/v.
See charts for grasses controlled. Use a minimum of 10 gals of spray solution per acre.				

- (1) If grass regrowth occurs or an additional flush of new grass emerges, make a second application of this product at the specified rate with the appropriate amount of crop oil concentrate.

DRY SHELLED AND SUCCULENT BEANS
[Succulent Shelled Pea and Bean Subgroup 6B]
[Dried shelled Pea and Bean (except Soybean 6C)]

Table 6. LIBERTY CLETHODIM 1 TANK MIXES WITH BROADLEAF HERBICIDES FOR DRY SHELLED AND SUCCULENT BEANS

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

It is the pesticide user's responsibility to ensure that all products in the listed mixtures are registered for the intended use. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

PRODUCT ⁽¹⁾	APPLICATION RATES/ACRE ⁽²⁾		ADJUVANT	
	ANNUAL GRASSES	PERENNIAL GRASSES	GROUND	AIR
LIBERTY CLETHODIM 1 + Bentazon	9 – 12 fl oz + See Bentazon label for application rate.	12 – 24 fl oz + See Bentazon label for application rate.	COC at 1% v/v + AMS at 2.5 lb/A	COC at 1% v/v + AMS at 17 lb/100 gal v/v

LIBERTY CLETHODIM 1 + Imazamox	9 – 12 fl oz + See Imazamox label for application rate.	-	NIS at 0.25% v/v + AMS at 2.5 lb/A	NIS at 0.25% v/v + AMS at 17 lb/100 gal v/v
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- (1) Broadleaf weed control may be reduced when grass populations are tall enough or dense enough to intercept the spray pattern and prevent them from receiving complete coverage. Tank mixing is not recommended in these situations.
- (2) If grass regrowth occurs or an additional flush of new grass emerges, make a second application of this product alone (without a tank mix herbicide), according to the appropriate size and rate directions.

FLAX

Table 7. REDUCED RATE LIBERTY CLETHODIM 1 TANK MIXED WITH BROADLEAF HERBICIDES FOR FLAX

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

It is the pesticide user's responsibility to ensure that all products in the listed mixtures are registered for the intended use. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

PRODUCT	APPLICATION RATE/ACRE	ADJUVANT	
	ANNUAL GRASSES ⁽¹⁾	GROUND	AIR
LIBERTY CLETHODIM 1 + 2,4-D + Clopyralid ^(2,3)	6 – 9 fl oz + See 2,4-D + Clopyralid label for application rate.	AMS at 2.4 – 4.0 lb/A + NIS at 0.125% v/v	AMS at 2.5 – 4.0 lb/A
LIBERTY CLETHODIM 1 + Bromoxynil ^(2,3)	6 – 9 fl oz + See Bromoxynil label for application rate.		
LIBERTY CLETHODIM 1 + Bromoxynil + MCPA ^(2,3)	6 – 9 fl oz + See Bromoxynil + MCPA label for application rate.		
LIBERTY CLETHODIM 1 + MCPA ^(2,3)	8 - 10 fl oz + See MCPA label for application rate.		

- (1) Annual grasses and sizes controlled with these tank mixtures are those that are identified in the "DIRECTIONS FOR REDUCED RATE TO CONTROL SMALL ANNUAL GRASSES" table.
- (2) **Restriction:** Do not apply a tank mix of this product during or after the bud stage or to ornamental flax or crop injury may occur.
- (3) **Restriction:** Do not apply tank mixes if temperatures are expected to exceed 85°F at (or 3 days following) application or crop injury may occur.

PEANUT

Table 8. LIBERTY CLETHODIM 1 TANK MIXES WITH BROADLEAF HERBICIDES FOR PEANUT (Refer to the use directions tables above for specific grasses and growth stages.)

It is the pesticide user's responsibility to ensure that all products in the listed mixtures are registered for the intended use. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

PRODUCT ⁽¹⁾	APPLICATION RATES/ACRE ⁽²⁾	ADJUVANT	
	ANNUAL GRASSES	GROUND	AIR
LIBERTY CLETHODIM 1 + Acifluorfen	9 – 16 fl oz + See Acifluorfen label for application rate.	COC at 1% v/v + AMS at	COC at 1% v/v + AMS at

LIBERTY CLETHODIM 1 + Bentazon	9 – 16 fl oz + See Bentazon label for application rate.	2.5 lb/A	17 lb/100 gals
LIBERTY CLETHODIM 1 + Bentazon + Acifluofen	9 – 16 fl oz + See Bentazon + Acifluofen label(s) for application rate.		

- (1) Broadleaf weed control may be reduced when grass populations are tall or dense enough to intercept the spray pattern and prevent them from receiving complete coverage. Tank mixing is not recommended in these situations.
- (2) If grass regrowth occurs or an additional flush of new grass emerges, make a second application of this product alone (without a tank mix herbicide), according to the appropriate size and rate directions.

GRASS SUPPRESSION FOR HARVEST EFFICIENCY IN PEANUT WITH LIBERTY CLETHODIM 1

GRASS SPECIES	WEED STAGE	APPLICATION RATES	
		MINIMUM RATE fl oz/A	MAXIMUM RATE fl oz/A
Annual and perennial grasses that exceed height claimed for control on height charts “DIRECTIONS FOR ANNUAL GRASSES” and “DIRECTIONS FOR PERENNIAL GRASSES”	Up to and including grasses in the seed head stage.	32	64
Add a crop oil concentrate at 1 qt./A by ground to the finished spray volume.			
Restriction			
• Do not apply as part of a tank mix when applying this product for grass suppression.			

SOYBEAN

Table 9. LIBERTY CLETHODIM 1 TANK MIX WITH BROADLEAF HERBICIDES FOR THE CONTROL OF VOLUNTEER CORN (INCLUDING ROUNDUP READY) IN SOYBEAN

(Refer to the use directions tables above for specific volunteer corn sizes and use rates.)

It is the pesticide user’s responsibility to ensure that all products in the listed mixtures are registered for the intended use. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

PRODUCT	WEED SIZE AND APPLICATION RATES		SPRAY ADDITIVES			
	VOLUNTEER CORN HEIGHT (inches)	LIBERTY CLETHODIM 1 RATES/ACRE	GROUND APPLICATION		AIR APPLICATION	
			NIS	AMS	NIS	AMS
LIBERTY CLETHODIM 1 + Glyphosate (1,2,3) See glyphosate label for application rates (Roundup Ready soybeans only)	Up to 12 Up to 24 Up to 36	6 fl oz 9 fl oz 12 fl oz	Adjuvant Loaded Glyphosate: None Required Adjuvant Unloaded Glyphosate: NIS at 0.25% v/v	8.5 to 17 lb/100 gals of spray solution	Adjuvant Loaded Glyphosate: None Required Adjuvant Unloaded Glyphosate: NIS at 0.25% v/v	8.5 to 17 lb/100 gals of spray solution

PRODUCT	WEED SIZE AND APPLICATION RATES		SPRAY ADDITIVES			
	VOLUNTEER CORN HEIGHT (inches)	LIBERTY CLETHODIM 1 RATES/ACRE	GROUND APPLICATION		AIR APPLICATION	
			NIS	AMS	NIS	AMS
LIBERTY CLETHODIM 1 + Cloransulam-methyl See Cloransulam-methyl label for application rates.	Up to 12 Up to 24 Up to 36	6 fl oz 9 fl oz 12 fl oz	NIS at 0.25% v/v	AMS at 2.5 lb/A	NIS at 0.25% v/v	17 lb/100 gals of spray solution
LIBERTY CLETHODIM 1 + Imazethapyr See Imazethapyr label for application rates.	Up to 12 Up to 24 Up to 36	6 fl oz 9 fl oz 12 fl oz				
LIBERTY CLETHODIM 1 + Imazamox See Imazamox label for application rates.	Up to 12 Up to 24 Up to 36	6 fl oz 9 fl oz 12 fl oz				

- (1) This tank mix may be applied postemergence to Roundup Ready soybeans up through the full flowering stage. **Restriction:** Do not apply less than 60 days before harvest.
- (2) Avoid contact with foliage, green stems or fruit crops or any desirable plants and trees, other than soybeans with the Roundup Ready gene as severe plant injury or death will result.
- (3) **Restriction:** Do not allow this product plus glyphosate to mist, drip, drift or splash onto desirable vegetation as minute quantities of the tank mix can cause severe damage or destruction to the crops, plants or other areas on which treatment was not intended. The likelihood of injury occurring from drift of this product is greatest when winds are gusty or in excess of 5 miles per hour. Even under lesser wind velocities, avoid conditions that allow spray drift to occur such as combinations of spray pressure and nozzle type that will result in fine particles (mist) that are likely to drift.

Table 10. LIBERTY CLETHODIM 1 TANK MIXES WITH BROADLEAF HERBICIDES FOR SOYBEAN (Refer to the tables above for specific grasses and growth stages.)

It is the pesticide user's responsibility to ensure that all products in the listed mixtures are registered for the intended use. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

PRODUCT (1)	APPLICATION RATES/ACRE (2)	SPRAY ADDITIVE			
	ANNUAL GRASSES (3)	GROUND APPLICATION		AIR APPLICATION	
		COC/NIS (4)	AMS	COC/NIS (4)	AMS
LIBERTY CLETHODIM 1 + Chlorimuron ethyl (5) + Thifensulfuron methyl	12 to 20 fl oz + See Chlorimuron and Thifensulfuron labels for application rate.	NIS at 0.25% v/v or COC at 1 pt/A	AMS at 2.5 lb/A	NIS at 0.25% v/v or COC at 1% v/v (but not less than 1 pt/A)	17 lb/100 gals of spray solution

PRODUCT ⁽¹⁾	APPLICATION RATES/ACRE ⁽²⁾	SPRAY ADDITIVE			
	ANNUAL GRASSES ⁽³⁾	GROUND APPLICATION		AIR APPLICATION	
		COC/NIS ⁽⁴⁾	AMS	COC/NIS ⁽⁴⁾	AMS
LIBERTY CLETHODIM 1 + Chlorimuron ethyl ⁽⁵⁾ + Thifensulfuron methyl (STS Soybeans Only)	12 to 20 fl oz + See Chlorimuron and Thifensulfuron labels (STS Soybeans Only) for application rate.	NIS at 0.25% v/v or COC at 1 pt/A	AMS at 2.5 lb/A	NIS at 0.25% v/v or COC at 1% v/v (but not less than 1 pt/A)	17 lb/100 gals of spray solution
LIBERTY CLETHODIM 1 + Chlorimuron ethyl ⁽⁵⁾ + Thifensulfuron methyl + Lactofen	12 to 20 fl oz + See Chlorimuron, Thifensulfuron and Lactofen labels for application rate.	NIS at 0.25% v/v plus COC at 0.125 to 0.25% v/v or COC at 1 to 2 pt/A	AMS at 2.5 lb/A	NIS at 0.25% v/v plus COC at 0.25% v/v or COC at 1% v/v (but not less than 1 pt/A)	17 lb/100 gals of spray solution
LIBERTY CLETHODIM 1 + Chlorimuron ethyl ⁽⁵⁾ + Thifensulfuron methyl + Lactofen (STS Soybeans Only)	12 to 20 fl oz + See Chlorimuron, Thifensulfuron and Lactofen labels for application rates. (STS Soybeans Only) for application rate.	NIS at 0.25% v/v plus COC at 0.125 to 0.25% v/v or COC at 1 to 2 pt/A	AMS at 2.5 lb/A	NIS at 0.25% v/v plus COC at 0.25% v/v or COC at 1% v/v (but not less than 1 pt/A)	17 lb/100 gals of spray solution
LIBERTY CLETHODIM 1 + Cloransulam-methyl ⁽⁵⁾	9 to 20 fl. oz + See Cloransulam label for application rate.	NIS at 0.25% v/v or COC at 1 pt/A	AMS at 2.5 lb/A	NIS at 0.25% v/v or COC at 1% v/v (but not less than 1 pt/A)	17 lb/100 gals of spray solution
LIBERTY CLETHODIM 1 + Cloransulam-methyl ⁽⁵⁾ + Flumetsulam	9 to 20 fl oz + See Cloransulam and Flumetsulam labels for application rate.	NIS at 0.25% v/v or COC at 1 pt/A	AMS at 2.5 lb/A	NIS at 0.25% v/v or COC at 1% v/v (but not less than 1 pt/A)	17 lb/100 gals of spray solution
LIBERTY CLETHODIM 1 + Cloransulam-methyl ⁽⁵⁾ + Flumiclorac + Lactofen	9 to 20 fl oz + See Cloransulam, Flumiclorac and Lactofen labels for application rate.	NIS at 0.25% v/v plus COC at 0.125 to 0.25% v/v or COC at 1 to 2 pt/A	AMS at 2.5 lb/A	-	-
LIBERTY CLETHODIM 1 + Cloransulam-methyl ⁽⁵⁾ + Fomesafen ⁽⁵⁾	9 to 20 fl oz + See Cloransulam and Fomesafen labels for application rate.	NIS at 0.25% v/v plus COC at 0.25% v/v or Equivalent blended product or COC at 1 to 2 pt/A	AMS at 2.5 lb/A	NIS at 0.25% v/v plus COC at 0.25% v/v or COC at 1% v/v (but not less than 1 pt/A)	17 lb/100 gals of spray solution

PRODUCT ⁽¹⁾	APPLICATION RATES/ACRE ⁽²⁾	SPRAY ADDITIVE			
	ANNUAL GRASSES ⁽³⁾	GROUND APPLICATION		AIR APPLICATION	
		COC/NIS ⁽⁴⁾	AMS	COC/NIS ⁽⁴⁾	AMS
LIBERTY CLETHODIM 1 + Cloransulam-methyl ⁽⁵⁾ + Lactofen	9 to 20 fl oz + See Cloransulam and Lactofen labels for application rate.	NIS at 0.25% v/v plus COC at 0.125 to 0.25% v/v or COC at 1 to 2 pt/A	AMS at 2.5 lb/A	NIS at 0.25% v/v plus COC at 0.25% v/v or COC at 1% v/v (but not less than 1 pt/A)	17 lb/100 gals of spray solution
LIBERTY CLETHODIM 1 + Flumiclorac	9 to 20 fl oz + See Flumiclorac label for application rate.	NIS at 0.25% v/v plus COC at 0.25% v/v or COC at 1 to 2 pt/A	AMS at 2.5 lb/A	-	-
LIBERTY CLETHODIM 1 + Flumiclorac + Imazethapyr ⁽⁵⁾	12 to 20 fl oz + See Flumiclorac and Imazethapyr labels for application rate.	NIS at 0.25% v/v plus COC at 0.25% v/v or COC at 1 to 2 pt/A	AMS at 2.5 lb/A	-	-
LIBERTY CLETHODIM 1 + Flumiclorac + Lactofen	9 to 20 fl oz + See Flumiclorac and Lactofen labels for application rate.	NIS at 0.25% v/v plus COC at 0.125 to 0.25% v/v or COC at 1 to 2 pt/A	AMS at 2.5 lb/A	-	-
LIBERTY CLETHODIM 1 + Fomesafen ⁽⁵⁾	9 to 20 fl oz + See Fomesafen label for application rate.	NIS at 0.25% v/v plus COC at 0.25% v/v or COC at 1 to 2 pt/A	AMS at 2.5 lb/A	NIS at 0.25% v/v plus COC at 0.25% v/v or COC at 1% v/v (but not less than	17 lb/100 gals of spray solution
LIBERTY CLETHODIM 1 + Imazamox ⁽⁵⁾	12 to 20 fl oz + See Imazamox label for application rate.	NIS at 0.25% v/v or COC at 1 pt/A	AMS at 2.5 lb/A	NIS at 0.25% v/v or COC at 1% v/v (but not less than 1 pt/A)	17 lb/100 gals of spray solution
LIBERTY CLETHODIM 1 + Imazamox ⁽⁵⁾ + Lactofen	12 to 20 fl oz + See Imazamox and Lactofen labels for application rate.	NIS at 0.25% v/v plus COC at 0.125 to 0.25% v/v or COC at 1 to 2 pt/A	AMS at 2.5 lb/A	NIS at 0.25% v/v plus COC at 0.25% v/v or COC at 1% v/v (but not less than 1 pt/A)	17 lb/100 gals of spray solution
LIBERTY CLETHODIM 1 + Imazethapyr ⁽⁵⁾	12 to 20 fl oz + See Imazethapyr label for application rate.	NIS at 0.25% v/v or COC at 1 pt/A	AMS at 2.5 lb/A	NIS at 0.25% v/v or COC at 1% v/v (but not less than 1 pt/A)	17 lb/100 gals of spray solution

PRODUCT (1)	APPLICATION RATES/ACRE (2)	SPRAY ADDITIVE			
	ANNUAL GRASSES (3)	GROUND APPLICATION		AIR APPLICATION	
		COC/NIS (4)	AMS	COC/NIS (4)	AMS
LIBERTY CLETHODIM 1 + Imazethapyr (5) + Lactofen	12 to 20 fl oz + See Imazethapyr and Lactofen labels for application rate.	NIS at 0.25% v/v plus COC at 0.125 to 0.25% v/v or COC at 1 to 2 pt/A	AMS at 2.5 lb/A	NIS at 0.25% v/v plus COC at 0.25% v/v or COC at 1% v/v (but not less than 1 pt/A)	17 lb/100 gals of spray solution
LIBERTY CLETHODIM 1 + Lactofen	9 to 20 fl oz + See Lactofen label for application rate.	NIS at 0.25% v/v plus COC at 0.125 to 0.25% v/v or COC at 1 to 2 pt/A	AMS at 2.5 lb/A	NIS at 0.25% v/v plus COC at 0.25% v/v or COC 1% v/v (but not less than 1 pt/A)	17 lb/100 gals of spray solution
LIBERTY CLETHODIM 1 + Lactofen + Thifensulfuron methyl(5)	9 to 12 fl oz + See Lactofen and Thifensulfuron labels for application rate.	NIS at 0.125 to 0.25% v/v plus COC at 0.125% v/v	AMS at 2.5 lb/A	-	-
LIBERTY CLETHODIM 1 + Thifensulfuron methyl(5)	9 to 12 fl oz + See Thifensulfuron label for application rate.	NIS at 0.125 to 0.25% v/v	AMS at 2.5 lb/A	-	-

- (1) Broadleaf weed control may be reduced when grass populations are tall or dense enough to intercept the spray pattern and prevent them from receiving complete coverage. Tank mixing is not recommended in these situations.
- (2) If grass regrowth occurs or an additional flush of new grass emerges, make a second application of this product alone (without a tank mix herbicide), according to the appropriate size and rate prescribed.
- (3) Annual grasses and sizes controlled with these tank mixtures are those that are identified in the "DIRECTIONS FOR ANNUAL GRASSES" table.
- (4) Contact local LIBERTY CROP PROTECTION representative for proper COC/NIS adjuvant selection.
- (5) Refer to product label for geographic and rotational restrictions.

SUGAR BEET

Table 11. LIBERTY CLETHODIM 1 TANK MIXED WITH BROADLEAF SUGAR BEET HERBICIDES

It is the pesticide user's responsibility to ensure that all products in the listed mixtures are registered for the intended use. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

PRODUCTS	APPLICATION RATES/ACRE	ADJUVANT INFORMATION
LIBERTY CLETHODIM 1 + Desmedipham or Phenmedipham + Desmedipham + Ethofumesate and/or Clopyralid and/or Triflurosulfuron methyl	9 -12 fl oz + See product label of herbicide(s) being used for application rate.	None required None required See below See below
NIS at 25% unless Desmedipham or Phenmedipham + Desmedipham + Ethofumesate is in the tank, then use no adjuvant.		

Table 12. LIBERTY CLETHODIM 1 PLUS DESMEDIPHAM TANK MIX FOR THREE SEQUENTIAL APPLICATIONS FOR ANNUAL GRASS CONTROL (MICRO RATE APPLICATION)

It is the pesticide user's responsibility to ensure that all products in the listed mixtures are registered for the intended use. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

PRODUCT	APPLICATION RATE/ACRE ⁽¹⁾	GRASSES CONTROLLED (Inches)	METHYLATED SEED OIL ⁽²⁾	
	ANNUAL GRASSES		GROUND	AIR
LIBERTY CLETHODIM 1 + Desmedipham or Phenmedipham + Desmedipham + Ethofumesate or Clopyralid or Triflurosulfuron-methyl	3 – 6 fl oz + See product label of herbicide(s) being used for application rate.	Barnyardgrass (1 – 2) Foxtail, Green (1 – 2) Foxtail, Yellow (1 – 2) Volunteer Cereals (1 – 2) Wild Oat (1 – 2)	1.5% v/v	1.5% v/v

⁽¹⁾ Broadleaf weed control may be reduced when grass populations are tall or dense enough to intercept the spray pattern and prevent them from receiving complete coverage. Tank mix is not recommended in these situations.

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

Directions for Use for Micro-Rate Applications to Sugar Beet

Multiple micro-rate applications of LIBERTY CLETHODIM 1 in tank mixtures with reduced rates of Desmedipham and methylated seed oils may be applied by air or ground equipment to sugar beet to control early germinating annual grasses listed above. It is the pesticide user's responsibility to ensure that all products in the listed mixtures are registered for the intended use. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

Table 13. TANK MIX APPLICATION OF LIBERTY CLETHODIM 1 AND FUNGICIDES FOR CONTROL OF GRASS WEEDS AND DISEASES IN SUGAR BEET

It is the pesticide user's responsibility to ensure that all products in the listed mixtures are registered for the intended use. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

PRODUCT ⁽¹⁾	APPLICATION RATES/ACRE ⁽²⁾		ADJUVANT
	ANNUAL GRASSES	PERENNIAL GRASSES	
LIBERTY CLETHODIM 1 + Pyraclostrobin	9 – 12 fl oz + See product label of the fungicide being used for application rate.	12 – 24 fl oz + See product label of the fungicide being used for application rate.	NIS at 0.25% v/v
LIBERTY CLETHODIM 1 + Tetraconazole			
LIBERTY CLETHODIM 1 + Trifloxystrobin			

(1) Refer to labels for this product and fungicide product for rates and weeds and diseases controlled.

(2) If grass regrowth occurs, or an additional flush of new grass emerges, make a second application of this product alone (without a tank mix fungicide), according to the appropriate size and rate directions.

Table 14. TANK MIX APPLICATION OF LIBERTY CLETHODIM 1 AND INSECTICIDES FOR CONTROL OF GRASS WEEDS AND INSECTS IN ALFALFA, COTTON, MINT, PEANUT (INCLUDING PERENNIAL), SOYBEAN AND SUNFLOWER

It is the pesticide user's responsibility to ensure that all products in the listed mixtures are registered for the intended use. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

PRODUCT ⁽¹⁾	APPLICATION RATES/ACRE ⁽²⁾		ADJUVANT RECOMMENDATION	CROP						
	ANNUAL GRASSES	PERENNIAL GRASSES		Alfalfa ⁽³⁾	Cotton	Mint ^(3,4)	Peanut	Soybean	Sunflower	
LIBERTY CLETHODIM 1 + Acephate	9 – 12 fl oz + See product label of the insecticide being used for application rate.	12 – 24 fl oz + See product label of the insecticide being used for application rate.	NIS @ 0.25% v/v + AMS @ 2.5 lb/A		X	X	X	X		
LIBERTY CLETHODIM 1 + Beta-cyfluthrin				X				X		
LIBERTY CLETHODIM 1 + Chlorpyrifos				X				X		
LIBERTY CLETHODIM 1 + Dimethoate				X				X		
LIBERTY CLETHODIM 1 + Esfenvalerate								X	X	
LIBERTY CLETHODIM 1 + Fenpropathrin							X			
LIBERTY CLETHODIM 1 + Lambda-cyhalothrin									X	X

LIBERTY CLETHODIM 1 + Permethrin				X				X	
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- (1) Refer to labels for this product and insecticide product for rates and weeds and insects controlled.
- (2) If grass regrowth occurs, or an additional flush of new grass emerges, make a second application of this product alone (without a tank mix insecticide) according to the appropriate size and rate directions.
- (3) 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 insecticides/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.
- (4) The rate of this product is 9 to 12 fl oz/A (0.068 to 0.091 lb a.i./A) for annual grass control in baby mint, minimum of 12 fl oz/A (0.091 lb a.i./A) for annual grass control in established mint and 16 to 32 fl oz/A (0.121 to 0.242 lb a.i./A) for perennial grass control.

FALLOW LAND

Directions for Use

LIBERTY CLETHODIM 1 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 LIBERTY CLETHODIM 1 at 12 to 16 fl oz/A (0.121 lb a.i./A) for annual grasses and 16 to 32 fl oz/A (0.121 to 0.242 lb a.i./A) for perennial grasses. When both grass and broadleaf weeds are the target pest, LIBERTY CLETHODIM 1 may be tank mixed with 2,4-D ester or Dicamba for broad spectrum control. When both annual and perennial grasses occur in the same field, use a minimum of 16 fl oz/A (0.121 lb a.i./A) of this product. It is the pesticide user's responsibility to ensure that all products in the listed mixtures are registered for the intended use. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

Precautions

- 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 Annual and Perennial Grasses section of this label.
- Annual grasses that emerge after an application of this product will not be controlled, and a second application may be necessary.
- The control of perennial grasses may require more than 1 application in non-tilled areas.

Restrictions

- Do not apply more than 32 fl oz/A (0.242 lb ai/A) per application.
- Do not apply more than 64 fl oz/A (0.485 lb ai/A) per year.
- Do not make more the 4 applications per year.
- 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 an application of this product.

Table 15. LIBERTY CLETHODIM 1 IN TANK MIXES TO CONTROL ANNUAL AND PERENNIAL GRASSES IN FALLOW LAND

It is the pesticide user's responsibility to ensure that all products in the listed mixtures are registered for the intended use. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

PRODUCT	APPLICATION RATES/ACRE ⁽¹⁾		ADJUVANT RECOMMENDATIONS	
	ANNUAL GRASSES	PERENNIAL GRASSES	GROUND	AIR
LIBERTY CLETHODIM 1 + 2,4-D ester or	12 – 16 fl oz + See 2,4-D ester or Dicamba label	16 – 32 fl oz + See 2,4-D ester or Dicamba label	NIS at 0.25% v/v or COC at 1% + AMS at 2.5 lb/A	NIS at 0.25% v/v or COC at 1% +

PRODUCT	APPLICATION RATES/ACRE ⁽¹⁾		ADJUVANT RECOMMENDATIONS	
	ANNUAL GRASSES	PERENNIAL GRASSES	GROUND	AIR
Dicamba	for application rates.	for application rates.		AMS at 17 lb/100 gals

⁽¹⁾ Refer to the label for this product for weed height and species control. Review 2,4-D and Dicamba labels for crop restrictions, use rates and weeds controlled.

USE DIRECTIONS FOR GRASS SUPPRESSION IN NON-CROP AREAS WITH LIBERTY CLETHODIM 1

GRASS SPECIES	WEED STAGE	APPLICATION RATES	
		MINIMUM RATE fl oz/A	MAXIMUM RATE fl oz/A
Annual and perennial grasses that exceed height claimed for control on height charts above.	Up to and including grasses in the seed head stage.	24	32
Add a crop oil concentrate at 1 qt/A by ground to the finished spray volume.			
Restriction			
• Do not apply as part of a tank mix when applying this product for grass suppression.			

Table 16. LIBERTY CLETHODIM 1 FOR THE CONTROL AND/OR SUPPRESSION OF TALL FESCUE IN NATIVE PRAIRIE WARM-SEASON GRASS RESTORATION PROJECTS

PRODUCT	PRODUCT RATES	GRASS WEEDS CONTROLLED/SUPPRESSED		WEED STAGES
		Common Name	Scientific Name	
LIBERTY CLETHODIM 1	12 – 16 fl oz/A	Tall Fescue	<i>Festuca arundinacea</i>	4 to 6 inches tall (40 to 60% green-up)
Adjuvant: This product must be applied with non-ionic surfactant at 0.25% v/v, plus a spray grade ammonium sulfate at 2.5 to 4 lb/A.				
Recommended Mixing Order: Thoroughly mix spray grade ammonium sulfate in water, add this product, then add crop oil concentrate.				

Application Instructions

- Burn or mow fields a minimum of 3 weeks prior to application to remove excess crop residue. Apply in the spring, at 40 to 60% tall fescue green-up, prior to emergence of warm season grasses.
- Apply in a minimum of 15 to 20 gallons of water per acre at a spray pressure of 40 to 60 PSI at the nozzle. Apply using flat fan or hollow cone nozzles.
- Apply only to fields that have warm-season grasses established for 2 years. Application of this herbicide to emerged warm-season grasses may cause injury.
- Applications of this product are most effective if applied when average nighttime temperatures are consistently greater than or equal to 47°F.

Application Restrictions

- Do not mow area for 2 weeks after the application of this product.
- Do not use flood jet nozzles.
- Do not apply to warm-season grasses grown for seed.
- Do not graze treated fields or feed treated forage and or hay to livestock.

Table 17. LIBERTY CLETHODIM 1 FOR THE SUPPRESSION OF TALL FESCUE SEED-HEADS IN NON-PRODUCING AGRICULTURAL AREAS

PRODUCT	PRODUCT RATE	SUPPRESSION	APPLICATION TIMING
LIBERTY CLETHODIM 1	3 - 4 fl oz/A	Tall Fescue Seed-Heads (<i>Festuca arundinacea</i>)	(50 to 90% Tall Fescue green-up) or 3 weeks prior to dormancy in the fall.

Adjuvant: This product must be applied with crop oil concentrate at 1 qt/A, plus a spray grade ammonium sulfate at 2.5 to 4 lb./A.
Recommended Mixing Order: Thoroughly mix spray grade ammonium sulfate in water, add this product, then add crop oil concentrate.
Note: Use crop oil concentrate at 2 pt/A with fall applications.

Application Instructions

- Apply at 50 to 90% tall fescue green-up.
- Use the higher rate of this product if less tall fescue green matter is present.
- Apply in a minimum of 15 to 20 gallons of water per acre at a spray pressure of 40 to 60 PSI at the nozzle. Apply using flat fan or hollow cone nozzles.
- 2,4-D ester, 2,4-D + Picloram, 2,4-D + Triclopyr or Picloram may be added to this tank mix for broadleaf control (see product labels for weeds controlled). It is the pesticide user's responsibility to ensure that all products in the listed mixtures are registered for the intended use. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

Application Restrictions

- Do not mow area for 2 weeks after an application of this product.
- Do not use flood nozzles.
- Do not graze treated fields or feed treated forage an or hay to livestock.

ORNAMENTALS

For ornamental plant uses, LIBERTY CLETHODIM 1 can be used to control labeled grass weeds in greenhouses, bathhouses, shadehouses, and around outdoor ornamentals, including nurseries, parks, roadside plantings, and structure landscapes.

IMPORTANT

LIBERTY CLETHODIM 1 successfully controls weeds in newly transplanted and established non-grassy ornamentals. Plant tolerance to LIBERTY CLETHODIM 1 at labeled rates has been found to be acceptable for the indicated genera and species listed below. Due to variability within species, crop growth stage, environmental conditions, and application techniques, it is recommended that the user determine if herbicide can be used safely on a few plants prior to widespread application. Neither the seller nor the manufacturer of LIBERTY CLETHODIM 1 have investigated the safety factor to ornamental plants not listed on the label.

The following plants have shown a tolerance for LIBERTY CLETHODIM 1 applications:

ORNAMENTAL TREES

COMMON NAME	SCIENTIFIC NAME
Alder, Red	<i>Alnus rubra</i>
Ash	<i>Fraxinus</i> spp.
Basswood	<i>Tilia</i> spp.
Birch, European White	<i>Betula pendula</i>
Birch, River	<i>Betula nigra</i>
Birch, White	<i>Betula papyrifera</i>
Crabapple, Flowering	<i>Malus halliana</i>
Dogwood, Flowering	<i>Cornus florida</i>
Golden Chain Tree	<i>Laburnum anagyroides</i>
Maples	<i>Acer</i> spp.

COMMON NAME	SCIENTIFIC NAME
Mulberry, White	<i>Morus alba</i>
Oaks	<i>Quercus</i> spp.
Olive, Wild	<i>Elaeagnus angustifolia</i>
Redbud, Eastern	<i>Cercis Canadensis</i>
Sweet Gum, American	<i>Liquidambar styraciflua</i>

GROUND COVERS

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

GARDEN FLOWERS AND PLANTS

COMMON NAME	SCIENTIFIC NAME
Ageratum	<i>Ageratum</i> spp.
Alyssum*, Sweet	<i>Lobularia maritima</i>
Asparagus Fern	<i>Asparagus setaceus</i>
Bleeding Heart	<i>Dicentra spectabilis</i>
Cast Iron Plant	<i>Aspidistra elatior</i>
Chrysanthemum	<i>Chrysanthemum</i> spp.
Cinquefoil	<i>Potentilla</i> spp.
Coleus	<i>Coleus</i> spp.
Coralbells	<i>Heuchera sanguinea</i>
Cranesbill	<i>Geranium</i> spp.
Dahlia	<i>Dahlia</i> spp.
Daisy, Trailing African	<i>Osteospermum fruticosum</i>
Daylily	<i>Hemerocallis</i> spp.
Dusty Miller	<i>Senecio cineraria</i>
Euonymus	<i>Euonymus</i> spp.
Gazania	<i>Gazania</i> spp.
Geranium, House	<i>Pelargonium hortorum</i>
Heather, False	<i>Cuphea hyssopifolia</i>
Hosta	<i>Hosta fortunei</i>
Iris	<i>Iris</i> spp.
Jasmine Tobacco	<i>Nicotiana alata</i>
Loosestrife	<i>Lythrum salicaria</i>
Marigold	<i>Tagetes</i> spp.
Partridgeberry	<i>Mitchella repens</i>
Petunia*	<i>Petunia hybrida</i>
Phlox	<i>Phlox</i> spp.
Pinks	<i>Dianthus</i> spp.
Portulaca	<i>Portulaca grandiflora</i>
Salvia	<i>Salvia</i> spp.
Saxifrage	<i>Saxifrage</i> spp.
Sedum	<i>Sedum</i> spp.
Selloum	<i>Philodendron selloum</i>
Snapdragon*	<i>Antirrhinum majus</i>
Sweet Flag	<i>Acorus gramineus</i>

COMMON NAME	SCIENTIFIC NAME
Tickseed	<i>Coreopsis grandiflora</i>
Touch-Me-Not	<i>Impatiens</i> spp.
Verbena	<i>Verbena</i> spp.
Violet	<i>Viola</i> spp.
Yarrow, Common	<i>Achillea millefolium</i>
Zinnia	<i>Zinnia elegans</i>

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

SHRUBS

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

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

USE DIRECTIONS FOR ANNUAL GRASSES IN ORNAMENTALS

- Apply only to actively growing grasses at specified weed heights.
- Apply when the first grass weed species in a mixed grass and 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 apply more than the maximum rate listed below per application.
- Do not exceed the maximum yearly rate listed in **Table 1**.
- Do not make more than four applications per year.

GRASS SPECIES	SCIENTIFIC NAME	WEED* HEIGHT INCHES	APPLICATION RATES	
			MINIMUM RATE fl oz/A ⁽¹⁾	MAXIMUM RATE fl oz/A ⁽²⁾
Barnyardgrass	<i>Echinochloa crus-galli</i>	2 to 8	12	32
Broadleaf Signalgrass	<i>Brachiaria platyphylla</i>	2 to 6	12	32
Brome				
California	<i>Bromus carinatus</i>	2 to 6	12	32
Cheat	<i>Bromus secalinus</i>	2 to 6	12	32
Downy	<i>Bromus tectorum</i>	2 to 6	12	32
Ripgut	<i>Bromus diandrus</i>	2 to 6	12	32
Canarygrass	<i>Phalaris canariensis</i>	1 to 4	12	32
Crabgrass				
Hairy	<i>Digitaria adscendens</i>	2 to 6**	12	32
Large	<i>Digitaria sanguinalis</i>	2 to 6**	12	32
Smooth	<i>Digitaria ischaemum</i>	2 to 6**	12	32
Southern	<i>Digitaria ciliaris</i>	2 to 6**	12	32
Crowfootgrass	<i>Dactyloctenium aegyptium</i>	2 to 6**	12	32
Fall Panicum	<i>Panicum dichotomiflorum</i>	2 to 8	12	32
Field Sandbur	<i>Cenchrus incertus</i>	2 to 6	12	32
Foxtail				
Giant	<i>Setaria faberi</i>	2 to 12	12	32
Green	<i>Setaria viridis</i>	2 to 8	12	32
Yellow	<i>Setaria glauca</i>	2 to 8	12	32
Goosegrass	<i>Eleusine indica</i>	2 to 6**	12	32
Itchgrass	<i>Rottboellia cochlin</i>	2 to 6	12	32
Junglerice	<i>Echinochloa colona</i>	2 to 6	12	32
Lovegrass (Stinkgrass)	<i>Eragrostis cilianensis</i>	2 to 6	12	32
Rabbitsfootgrass	<i>Polypogon monspeliensis</i>	1 to 4	12	32
Red Rice	<i>Oryza sativa</i>	1 to 3	12	32
Ryegrass				
Hardy	<i>Lolium remotum</i>	2 to 6	12	32
Italian	<i>Lolium multiflorum</i>	2 to 6	12	32
Seedling Johnsongrass	<i>Sorghum halepense</i>	4 to 10	12	32
Shattercane	<i>Sorghum bicolor</i>	6 to 18	12	32
Southwestern Cupgrass	<i>Eriochloa gracilis</i>	2 to 6	12	32
Sprangletop				
Amazon	<i>Leptochloa panicoides</i>	2 to 6	12	32
Bearded	<i>Leptochloa fascicularis</i>	2 to 6	12	32
Mexican	<i>Leptochloa uninervia</i>	2 to 6	12	32
Red	<i>Leptochloa filiformis</i>	2 to 6	12	32
Texas Panicum	<i>Panicum texanum</i>	2 to 6	12	32
Volunteer Cereals				

GRASS SPECIES	SCIENTIFIC NAME	WEED* HEIGHT INCHES	APPLICATION RATES	
			MINIMUM RATE fl oz/A ⁽¹⁾	MAXIMUM RATE fl oz/A ⁽²⁾
Barley	<i>Hordeum vulgare</i>	2 to 6	12	32
Oats	<i>Avena sativa</i>	2 to 6	12	32
Rye	<i>Secale cereale</i>	2 to 6	12	32
Wheat	<i>Triticum aestivum</i>	2 to 6	12	32
Volunteer Corn	<i>Zea mays</i>	4 to 12	12	16
Volunteer Corn	<i>Zea mays</i>	12 to 24	12	32
Volunteer Grain Sorghum	<i>Sorghum bicolor</i>	8 to 12	12	32
Wild Oats	<i>Avena fatua</i>	2 to 6	12	32
Wild Proso Millet	<i>Panicum miliaceum</i>	2 to 10	12	32
Witchgrass	<i>Panicum capillare</i>	2 to 8	12	32
Woolly Cupgrass	<i>Eriochloa villosa</i>	2 to 8	12	32

* Generally occurs between 3-leaf stage and tillering.

** Length of lateral growth.

(1) 16 fl oz/A (0.121 lb ai/A) = approximately 0.4 fl. oz./1000 sq. ft.

(2) 32 fl oz/A (0.242 lb ai/A) = approximately 0.8 fl. oz./1000 sq. ft.

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

USE DIRECTIONS FOR ANNUAL BLUEGRASS CONTROL WITH LIBERTY CLETHODIM 1 IN ORNAMENTALS

GRASS SPECIES	WEED STAGE	APPLICATION RATES	
		MINIMUM RATE fl oz/A	MAXIMUM RATE fl oz/A
Annual Bluegrass (<i>Poa annua</i>)	to 4-leaf	12	32
<p>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).</p> <p>Apply at weed stage indicated on the label, as reduced control can be expected with more mature annual bluegrass.</p> <p>Use the high rate under heavy grass pressure and/or when annual bluegrass is more mature.</p> <p>Add a non-ionic surfactant containing at least 80% active ingredient at the rate of 1 pt. per 50 gals. (0.25% v/v).</p>			

USE DIRECTIONS FOR PERENNIAL GRASSES

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

Restrictions

- Do not apply more than the maximum rate listed below per application.
- Do not exceed the maximum yearly rate listed in **Table 1**.
- Do not make more than four applications per year.

GRASS SPECIES	WEED HEIGHT (inches)	APPLICATION RATE	
		MINIMUM RATE fl oz/A	MAXIMUM RATE fl oz/A
Bermudagrass (<i>Cynodon dactylon</i>)			
First Application	3 (or up to 6" runners)	12	32
Repeat Application(s) (if regrowth occurs)	3 (or up to 6" runners)	12	32

Foxtail Barley (<i>Hordeum jubatum</i>)			
First Application	2 – 6	12	32
Repeat Application(s) (if regrowth occurs)	2 – 6	12	32
Quackgrass (<i>Elytrigia repens</i>)			
First Application	4 – 8	12	32
Repeat Application(s) (if regrowth occurs)	4 – 8	12	32
Rhizome Johnsongrass (<i>Sorghum halepense</i>)			
First Application	12 – 24	12	32
Repeat Application(s) (if regrowth occurs)	6 – 18	9	16
Wirestem Muhly (<i>Muhlenbergia frondosa</i>)			
First Application	4 – 8	12	32
Repeat Application(s) (if regrowth occurs)	4 – 8	12	32

(1) 16 fl oz/A (0.121 lb ai/A) = approximately 0.4 fl oz/1000 sq. ft.

(2) 32 fl oz/A (0.242 lb ai/A) = approximately 0.8 fl oz/1000 sq. ft.

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

IMPORTANT

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

NON-BEARING FOOD CROPS

LIBERTY CLETHODIM 1 must not be applied to non-bearing fruit or nut crops which are grown for root stock.

Crop injury to non-bearing fruit and nut crops can occur if LIBERTY CLETHODIM 1 is improperly applied. LIBERTY CLETHODIM 1 must not be applied directly over the top of these plants types. Instead spray should be directed at the base of the plant where grassy weeds are growing near the ground.

Non-bearing fruit and nut crops are plants which will not bear fruit or nuts for at least one year following application of LIBERTY CLETHODIM 1.

Restrictions

- Do not exceed the maximum per application rate listed in **Table 1**.
- Do not exceed the maximum yearly rate listed in **Table 1**.
- Do not make more than four applications per year.

COMMON NAME	SCIENTIFIC NAME
Apples	<i>Malus</i> spp.
Berries	<i>Vaccinium</i> spp.
	<i>Rubus</i> spp
Cherry, sweet	<i>Prunus avium</i>
Citrus fruits	<i>Citrus</i> spp.
Grapes	<i>Vitis</i> spp.
Olives	<i>Olea</i> spp.
Peach	<i>Prunus persica</i>
Pears	<i>Pyrus communis</i>

Prunes	<i>Prunus</i> spp.
Stone fruits	<i>Prunus</i> spp.
Strawberries	<i>Fragaria</i> spp.
Tree nuts	
Almond	<i>Prunus triloba</i>
Filbert	<i>Corylus maxima</i>
Pecan	<i>Carya illinoensis</i>
Pistachio	<i>Pistacia vera</i>
Walnut	<i>Juglans</i> spp.

CONIFER TREES

LIBERTY CLETHODIM 1 can be used to control labeled grasses in Christmas tree farms, conifer nurseries and conifer plantations (but not in forests).

Restrictions

- Do not exceed the maximum per application rate listed in **Table 1**.
- Do not exceed the maximum yearly rate listed in **Table 1**.
- Do not make more than four applications per year.

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

NON-CROP OR NON-PLANTED AREAS

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

Restrictions

- Do not exceed the maximum per application rate listed in **Table 1**.
- Do not exceed the maximum yearly rate listed in **Table 1**.
- Do not make more than four applications per year.

STORAGE AND DISPOSAL

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

Pesticide Storage

Store in original containers only. Do not put concentrate or dilute into food or drink containers. Store in cool, dry place. Do not store diluted spray. In case of spill or leak on floor or paved surfaces, soak up with sand, earth, or synthetic absorbent. Remove to chemical waste area.

Pesticide Disposal

Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste Representative at the nearest EPA Regional Office for guidance.

Container Handling

NONREFILLABLE CONTAINER (EQUAL TO OR LESS THAN 5 GALLONS): Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. **Triple rinse as follows:** Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Offer for recycling, if available or reconditioning if appropriate or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

NONREFILLABLE CONTAINER (GREATER THAN 5 GALLONS): Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. **Triple rinse as follows:** Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Offer for recycling, if available or reconditioning if appropriate or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

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

REFILLABLE CONTAINER: Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times. After triple rinsing is complete, and the container is not suitable for refilling or reconditioning, offer the container for recycling if available, or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures approved by state and local authorities.

CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY

NOTICE: Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before buying or using this product. If the terms are not acceptable, return the product at once, unopened, and the purchase price will be refunded.

The Directions for Use of this product must be followed carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Ineffectiveness or other unintended consequences may result because of such factors as manner of use or application, weather, presence of other materials or other influencing factors in the use of the product, which are beyond the control of LIBERTY CROP PROTECTION, LLC or Seller. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW all such risks shall be assumed by Buyer and User and Buyer and User agree to hold LIBERTY CROP PROTECTION, LLC and Seller harmless for any claims relating to such factors.

LIBERTY CROP PROTECTION, LLC warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use, subject to the inherent risks referred to above, when used in accordance with directions under normal use conditions. This warranty does not extend to the use of this product contrary to label instructions, or under abnormal conditions or under conditions not reasonably foreseeable to or beyond the control of Seller or LIBERTY CROP PROTECTION, LLC, and TO THE EXTENT CONSISTENT WITH APPLICABLE LAW Buyer and User assume the risk of any such use. To the extent consistent with applicable law LIBERTY CROP PROTECTION, LLC MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE OR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS STATED ABOVE.

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