

Willowood CLETHODIM 2EC

CLETHODIM

GROUP

1

HERBICIDE

ACTIVE INGREDIENT:

*Clethodim..... 26.4%

OTHER INGREDIENTS: 73.6%

TOTAL: 100.0%

Contains Petroleum Distillates

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

Contains 2.0 lbs. clethodim per gallon.

By Wt.

26.4%

73.6%

100.0%

KEEP OUT OF REACH OF CHILDREN WARNING - AVISO

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

FIRST AID

If in eyes: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

If on skin or clothing: 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 swallowed: 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 inhaled: 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.

HOT LINE NUMBER

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 seven days a week, 6:30 am to 4:30 pm Pacific Time or your poison control center at 1-800-222-1222.

NOTE TO PHYSICIAN

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

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

EPA Reg. No. 87290-11

Manufactured For:

Willowood, LLC
1887 Whitney Mesa Drive #9740
Henderson, NV 89014-2069
20191029

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

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

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Applicators and other handlers must wear: long-sleeved shirt and long pants, chemical-resistant gloves such as Barrier Laminate or Viton $\geq$ 14 mils, shoes plus socks, and protective eyewear.

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

USER SAFETY RECOMMENDATIONS

Users should:

- Wash hands 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.

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.

NON-TARGET ORGANISM ADVISORY STATEMENT

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

PHYSICAL OR CHEMICAL HAZARDS

Combustible. Do not use or store near heat or open flame.

DIRECTIONS FOR USE

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

READ 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, chemical-resistant gloves, such as Barrier Laminate or Viton $\geq$ 14 mils, shoes plus socks, and protective eyewear.

NON-AGRICULTURAL USE REQUIREMENTS

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

TANK MIXES

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

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

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

WEED RESISTANCE MANAGEMENT

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

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

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

To delay herbicide resistance:

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

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

CHEMIGATION

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

PRODUCT INFORMATION

FOR USE ON: Alfalfa; Artichoke (Globe); Asparagus; Bean (dry) and Pea (shelled) [Dry Shelled Pea and Bean (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) [Low Growing Berry Subgroup 13-07G]³; Brassica, Head and Stem [Head and Stem Brassica Subgroup 5A]⁴; Bushberry [Subgroup 13-07B]⁵; Caneberry [Subgroup 13-07A]⁶; Canola (except flax seed, mustard seed and sesame) [Rapeseed Subgroup 20A]⁷; Clover (grown in Idaho, Oregon and Washington only); Corn, Field⁸; Cotton (including cotton grown for seed) [Cottonseed Subgroup 20C]⁹; Cranberry; Cucurbit Vegetables, Melons (including cantaloupes and watermelons) [Subgroup 9A]¹⁰; Cucurbit Vegetables, Squash/Cucumber [Subgroup 9B]¹¹; Fallow Land (and other non-producing agricultural areas); Flax^{*}; Fruiting Vegetables (except tomatoes) [Fruiting Vegetables Group 8-10]¹²; Herbs [Subgroup 19A]¹³; Hops; Leaf Petioles (including rhubarb) [Leaf Petioles Subgroup 4B]¹⁴; Leafy Brassica Greens (including mustard greens) [Subgroup 5B]¹⁵; Leafy Greens [Subgroup 4A]¹⁶; Legumes (edible podded; except soybean) [Edible-Podded Legume Vegetables Subgroup 6A]¹⁷; Mint (peppermint & spearmint tops); Mustard Seed^{*}; Non-Bearing Food Crops; Non-Crop or Non-Planted Areas; Onion, bulb [Subgroup 3-07A]¹⁸; Onion, green; Ornamentals; Peanut (including perennial); Pome Fruit [Group 11-10]¹⁹; Potato; Radish; Root Vegetables (except radish) [Subgroup 1B]²⁰; Safflower; Sesame; Soybean; Strawberry; Stevia, dried leaves; Stone Fruit [Group 12-12]²¹; Sugar Beet; Sunflower (except safflower) [Subgroup 20B]²²; Tuberous and Corm Vegetables (except potato) [Subgroup 1C]²³; Tomato; Turnip Greens.

*Not registered for use in California

- ¹ *Bean (dry) and Pea (shelled) [Dry Shelled Pea and Bean (except Soybean) Subgroup 6C] crops approved for use with Willowood Clethodim 2EC include:* dried cultivars of bean (*Lupinus* spp.) (incl. grain lupin, sweet lupin, white lupin, white sweet lupin); bean (*Phaseolus* spp.) (incl. field bean, kidney bean, lima bean (dry), navy bean, pinto bean, tepary bean); bean (*Vigna* spp.) (incl. adzuki bean, blackeyed pea, catjang, cowpea, Crowder pea, moth bean, mung bean, rice bean, southern pea, urd bean); broad bean (dry); chickpea; guar; lablab bean; lentil; pea (*Pisum* spp.) (incl. field pea); pigeon pea.
- ² *Bean and Pea (succulent shelled) [Succulent Shelled Pea and Bean Subgroup 6B] crops approved for use with Willowood Clethodim 2EC include:* bean (*Phaseolus* spp.) (incl. lima bean (green)); broad bean (succulent); bean (*Vigna* spp.) (incl. blackeyed pea, cowpea, southern pea); pea (*Pisum* spp.) (incl. English pea, garden pea, green pea); pigeon pea.
- ³ *Berry, Low Growing (except cranberry and strawberry) [Low Growing Berry Subgroup 13-07G] crops approved for use with Willowood Clethodim 2EC include:* bearberry; bilberry; blueberry, lowbush; cloudberry; lingonberry; muntries; partridgeberry; cultivars, varieties, and/or hybrids of these.
- ⁴ *Brassica Vegetables, Head and Stem [Head and Stem Brassica Subgroup 5A] crops approved for use with Willowood Clethodim 2EC include:* broccoli; broccoli, Chinese; brussels sprouts; cabbage; cabbage, Chinese (napa); cabbage, Chinese mustard; cauliflower; cavalo broccolo; kohlrabi.
- ⁵ *Bushberry [Bushberry Subgroup 13-07B] crops approved for use with Willowood Clethodim 2EC include:* Aronia berry; blueberry, highbush; blueberry, lowbush; buffalo currant; Chilean guava; currant, black; currant, red; elderberry; European, barberry; gooseberry; cranberry, highbush; honeysuckle, edible; huckleberry; jostaberry; Juneberry; lingonberry; native currant; salal; sea buckthorn; cultivars, varieties, and/or hybrids of these.
- ⁶ *Caneberry [Caneberry Subgroup 13-07A] crops approved for use with Willowood Clethodim 2EC include:* blackberry; loganberry; raspberry, red and black; wild raspberry; cultivars, varieties, and/or hybrids of these.
- ⁷ *Canola (except flax seed, mustard seed and sesame) [Rapeseed Subgroup 20A] crops approved for use with Willowood Clethodim 2EC include:* Borage; crambe; cuphea; echium; gold of pleasure; hare's ear mustard; lesquerella; lunaria; meadowfoam; milkweed; oil radish; poppy seed; rapeseed; sweet rocket cultivars, varieties, and/or hybrids of these.
- ⁸ For burndown of existing stand of Roundup Ready field corn or volunteer Roundup Ready field corn prior to replanting field corn.
- ⁹ *Cotton (including cotton grown for seed) [Cottonseed Subgroup 20C] crops approved for use with Willowood Clethodim 2EC include:* Cottonseed; cultivars, varieties, and/or hybrids of these.
- ¹⁰ *Cucurbit Vegetables, Melons (including cantaloupes and watermelons) [Subgroup 9A] crops approved for use with Willowood Clethodim 2EC include:* citron melon; muskmelon (hybrids and/or cultivars of *Cucumis melo*); watermelon.
- ¹¹ *Cucurbit Vegetables, Squash/Cucumbers [Subgroup 9B] crops approved for use with Willowood Clethodim 2EC include:* Chayote (fruit); Chinese waxgourd; cucumber; gherkin; gourd, edible; *Momordica* spp.; pumpkin; squash, summer; squash, winter.
- ¹² *Fruiting Vegetables (except tomatoes) [Fruiting Vegetables Group 8-10] crops approved for use with Willowood Clethodim 2EC include:* Africa eggplant; bush tomato; cocona; currant tomato; eggplant; garden huckleberry; goji berry; groundcherry; martynia; naranjilla; okra; pea eggplant; pepino; pepper, bell; pepper, nonbell; roselle; scarlet eggplant; sunberry; tomatillo; tree tomato; cultivars, varieties and/or hybrids of these.
- ¹³ *Herbs [Subgroup 19A] crops approved for use with Willowood Clethodim 2EC include:* Angelica; balm; basil; borage; burnet; camomile; catnip; chervil (dried); chive; chive, Chinese, clary; coriander (leaf); costmary; culantro (leaf); curry (leaf); dillweed; horehound; hyssop; lavender; lemongrass; lovage (leaf); marigold; marjoram (*Origanum* spp.); nasturtium; parsley (dried); pennyroyal; rosemary; rue; sage; savory, summer and winter; sweet bay; tansy; tarragon; thyme; wintergreen; woodruff; and wormwood.
- ¹⁴ *Leaf Petioles (including rhubarb) [Leaf Petioles Subgroup 4B] crops approved for use with Willowood Clethodim 2EC include:* Cardoon; celery; celery, Chinese; celtuce; fennel, Florence; rhubarb; Swiss chard.
- ¹⁵ *Leafy Brassica Greens (including mustard greens) [Subgroup 5B] crops approved for use with Willowood Clethodim 2EC include:* broccoli raab; cabbage, Chinese (bok choy); collards; kale; mizuna; mustard greens; mustard spinach; rape greens.
- ¹⁶ *Leafy Greens [Subgroup 4A] crops approved for use with Willowood Clethodim 2EC include:* Amaranth; arugula; chervil; chrysanthemum, edible-leaved; chrysanthemum, garland; corn salad; cress, garden; cress, upland; dandelion; dock; endive; lettuce; orach; parsley; purslane, garden; purslane, winter; radicchio (red chicory); spinach; spinach, New Zealand; spinach, vine.
- ¹⁷ *Legumes, Eedible Podded (except soybean) [Edible-Podded Legume Vegetables Subgroup 6A] crops approved for use with Willowood Clethodim 2EC include:* Bean (*Phaseolus* spp.) (incl. runner bean, snap bean, wax bean); bean (*Vigna* spp.) (incl. asparagus bean, Chinese longbean, moth bean, yardlong bean, jackbean); pea (*Pisum* spp.) (incl. dwarf pea, edible-pod pea, snow pea, sugar snap pea); pigeon pea; sword bean.

¹⁸ *Onion, bulb [Subgroup 3-07A] crops approved for use with Willowood Clethodim 2EC 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.

¹⁹ *Pome Fruit [Group 11-10] crops approved for use with Willowood Clethodim 2EC include:* apple; Azarole; crabapple; loquat; mayhaw; Hook. & Arn., and *C. rufula* Sarg.; medlar; pear; pear, Asian; *Pseudocarya sinensis*; quince; quince, Chinese; quince, Japanese; tejocote; cultivars, varieties and/or hybrids of these.

²⁰ *Root Vegetables (except radish) [Subgroup 1B] crops approved for use with Willowood Clethodim 2EC include:* beet, garden; burdock, edible; carrot; celeriac; chervil, turnip-rooted; chicory; ginseng; horseradish; parsley, turnip-rooted; parsnip; radish, oriental; rutabaga; salsify; salsify, black; salsify, Spanish; skirret; turnip.

²¹ *Stone Fruit [Group 12-12] crops approved for use with Willowood Clethodim 2EC include:* apricot; apricot, Japanese; capulin; cherry, black; cherry, Nanking; cherry, sweet; cherry, tart; jujube, Chinese; nectarine; peach, plum; plum, American; plum, beach; plum, Canada; plum, cherry; plum, Chickasaw; plum, Damson; plum, Japanese; plum, Klamath; plum, prune; plumcot; sloe; cultivars, varieties, and/or hybrids of these.

²² *Sunflower (except safflower) [Subgroup 20B] crops approved for use with Willowood Clethodim 2EC include:* Calendula; castor oil plant; chinese tallowtree; euphorbia; evening primrose; jojoba; niger seed; rose hip; stokes aster; sunflower; tallowwood; tea oil plant; vernonia; cultivars, varieties, and/or hybrids of these.

²³ *Tuberous and Corm Vegetables (except potato) [Subgroup 1C] crops approved for use with Willowood Clethodim 2EC include:* Arracacha; arrowroot; artichoke, Chinese; artichoke, Jerusalem; canna, edible; cassava, bitter and sweet; chayote (root); chufa; dasheen; ginger; leren; sweet potato; tanier; turmeric; yam bean; yam, true.

RESTRICTIONS

- Application on Long Island, New York is restricted to no more than 16 fl. oz. (0.250 lbs ai) of Willowood Clethodim 2EC (0.250 lb ai) per acre per year.
- Do not apply if rain is expected within 1 hour of application as control may be unsatisfactory.
- Do not apply a post emergence broadleaf herbicide within one day following application of Willowood Clethodim 2EC or reduced grass control may result.
- Do not apply under conditions of stress. Applying Willowood Clethodim 2EC under conditions that do not promote active grass growth will reduce herbicide effectiveness. These conditions include drought, excessive water, extremes in temperature, low humidity and grasses either partially controlled or stunted from prior pesticide applications. Grasses under these kinds of stressful conditions will not absorb and translocate Willowood Clethodim 2EC effectively and will be less susceptible to herbicide activity.
- Do not allow Willowood Clethodim 2EC to come into contact with desirable grass crops such as corn, rice, sorghum, small grains, or turf, as these and other grass crops will be injured or killed. Minor leaf spotting may occur on treated plants under certain environmental conditions. New foliage is not affected.
- Aerial applications for all tree fruits and tree nuts uses are prohibited.
- Do not apply more than 4 applications per year for the following uses:
fallow land, rights-of-way, around airports, electric utilities, commercial buildings, manufacturing plants, storage yards, rail yards, fence lines, parkways, beneath greenhouse benches, alfalfa, ornamentals, landscaped areas, non-bearing food crops (apples, berries, strawberries, citrus fruits, grapes, olives, pears, stone fruits, and tree nuts), grass forage/fodder/hay, clover, herbs, turnip greens, sesame, safflower, hops, mustard vegetables, radishes, mint, beets, brassica vegetables, carrots, cranberries, cucurbit vegetables, fruiting vegetables, leafy vegetables, strawberries, dried beans, cotton, peanuts, potatoes, sainfoin, soybeans, sugar beets, sunflowers, sweet potatoes, tomatoes, trefoil, yams, root & tuber vegetables, Christmas trees, lentils, tree fruits and tree nuts, asparagus, sage, shallots, artichokes, bushberries, including cranberries, peaches, meadowfoam, seeds, kenaf.
- Do not apply more than 66.5 fl. oz./A (1.04 lbs. a.i./A) per year to the following:
fallow land, rights-of-way, around airports, electric utilities, commercial buildings, manufacturing plants, storage yards, rail yards, fence lines, parkways, beneath greenhouse benches, alfalfa, ornamentals, landscaped areas, non-bearing food crops (apples, berries, strawberries, citrus fruits, grapes, olives, pears, stone fruits, and tree nuts), clover, mint, beets, brassica vegetables, carrots, cranberries, cucurbit vegetables, fruiting vegetables, leafy vegetables, strawberries, dried beans, cotton, peanuts, potatoes, sainfoin, soybeans, sugar beets, sunflowers, sweet potatoes, tomatoes, trefoil, yams, Christmas trees, tree fruits, tree nuts.

ROTATIONAL RESTRICTIONS

Do not plant rotational crops until 30 days after application of Willowood Clethodim 2EC unless the crop is listed on the Willowood Clethodim 2EC label.

PRECAUTIONS

- Grass crops such as corn, rice, sorghum, small grains, or turf, etc. are highly sensitive to Willowood Clethodim 2EC.
- Willowood Clethodim 2EC may not be used on vegetable crops being grown for seed production unless specific use directions are provided.
- Willowood Clethodim 2EC is a selective postemergence herbicide for control of annual and perennial grasses.
- Willowood Clethodim 2EC does not control sedges or broadleaf weeds.
- Optimal perennial grass control can be obtained if rhizomes or stolons are cut up by preplant tillage practices (discing, plowing, etc.) to stimulate maximum emergence of grass shoots. Cultural practices, such as continuous no-tillage in which the perennial grass rhizomes or stolons are not cut up, result in a very staggered, non-uniform weed emergence. Due to this non-uniform weed emergence, make no fewer than two (2) Willowood Clethodim 2EC applications per year at the appropriate weed-growth stage rate under continuous no-till conditions.
- While all vegetable crops on this label have been tested and are not sensitive to Willowood Clethodim 2EC, not all specialty varieties of these crops have been tested. It is advised that before applying Willowood Clethodim 2EC to specialty varieties of vegetable crops on this label, crop sensitivity be investigated first using a small section of the field. It is possible that injury symptoms can occur. Symptoms may appear as leaf speckling or stunting.
- Always read and follow the restrictions and precautions for all products whether used alone or in a tank mix. The most restrictive labeling of any product used applies in tank mixtures, including all crop rotational and other crop restrictions.
- Tank mixes of Willowood Clethodim 2EC and broadleaf herbicides may result in reduced grass control. If grass regrowth occurs, an additional application of Willowood Clethodim 2EC may be necessary. **AVOID SPRAY DRIFT.**
- Repeated use of Willowood Clethodim 2EC (or similar postemergence grass herbicides with the same mode of action) may lead to the selection of naturally occurring biotypes that are resistant to these products in some grass species.
- If poor performance occurs and cannot be attributed to adverse weather or application conditions, a resistant biotype may be present. This is most likely to occur in fields where other control strategies such as crop rotation, mechanical removal, and other classes of herbicides are not used from year to year.

APPLICATION INFORMATION

Timing of Applications

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

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

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

Control Symptoms

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

ADDITION OF ADJUVANT OR CROP OIL CONCENTRATE

CROP	ADJUVANT USE INSTRUCTIONS
Alfalfa, Cotton, Bean (dry) & Pea (shelled), Edible Podded Legume Vegetable (except soybean), Peanuts (including perennial), Potato, Soybean, Bean & Pea (succulent shelled), Sugar Beet and Sunflower (except safflower)	Always use a crop oil concentrate* at 1.0 qt./A by ground or 1% v/v (but not less than 1 pt./A) in the finished spray volume by air. 1 to 2 qts./A of liquid fertilizer (10-34-0, 28%N or 32%N), or an equivalent amount (2.5 to 4.0 lbs./A) of spray grade ammonium sulfate (AMS) may be added to Willowood Clethodim 2EC applications, in addition to the specified rate of crop oil concentrate. The addition of AMS has shown improved grass control for difficult to control species including: quackgrass, rhizome Johnsongrass, red rice, wild oats, volunteer cereals, and volunteer corn.
Artichoke (Globe), Asparagus, Berry (low-growing; except cranberry and strawberry), Bushberry, Caneberry, Canola (except flax seed, mustard seed and sesame), Clover, Cranberry, Cucurbits, Flax, Fruiting Vegetables (except Tomato), Head & Stem Brassica Vegetables, Herbs, Hops, Leaf Petioles, Leafy Brassica Greens, Leafy Greens, Mint, Mustard Seed, Onion (Dry Bulb), Green Onion, Pome Fruit, Radish, Root Vegetables (except radish), Safflower, Sesame, Stone Fruit, Strawberry, Stevia (dried leaves), Tuberous and Corm Vegetables (except Potato), Tomato and Turnip Greens	Always use a crop oil concentrate at 1% v/v in the finished spray volume unless tank mix instructions indicate otherwise. Addition of liquid fertilizer is not advised for these crops.
Non-Bearing Food Crops, Ornamental Plants	Add a non-ionic surfactant containing at least 80% active ingredient at the rate of 1 pt. per 50 gals. (0.25% v/v). Use of crop oil concentrate is not advised since it may injure flowers and foliage.
Conifer Trees, Fallow Land (and other non-producing agricultural areas), and Non-Crop or Non-Planted Areas	Always use a crop oil concentrate containing at least 15% emulsifier at 1% v/v (but not less than 1 pt./A) in the finished spray volume.

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

Ground Application

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

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

Air Application

Use a minimum of 3 gals. of spray solution per acre unless otherwise directed in this label. Increase spray volumes up to 10 gals. as grass or crop foliage becomes dense. For onions (dry bulb), green onion or garlic: When applying by air do not exceed 8 fl. oz./A (0.125 lbs ai) in a single application. In California, make air applications to onions or garlic in a minimum of 20 gals. of spray solution per acre. In states other than California, air application to onions or garlic must be made in a minimum of 10 gals. of spray solution per acre.

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

Spot Treatment

When using hand sprayers or high volume sprayers utilizing hand guns, mix 1/4% to 1/2% (0.33 oz. to 0.65 oz. per gal.) Willowood Clethodim 2EC and treat to wet vegetation, while not allowing runoff of spray solution. For uses requiring crop oil concentrate, include crop oil concentrate at 1% (1.3 oz. per gal.) by volume. For uses requiring non-ionic surfactant, include non-ionic surfactant at 1.4% (0.33 oz. per gal.) by volume).

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

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

Only apply Willowood Clethodim 2EC by chemigation to onion (dry bulb), green onion, and garlic crops.

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

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

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

Restrictions

- **Do not apply Willowood Clethodim 2EC by chemigation in the states of Idaho, Montana, Oregon and Washington.**
- Do not apply this product through any irrigation system connected to a public water system.
- Do not apply by chemigation to any other crop, or to this crop using any other type of irrigation system.
- Do not apply Willowood Clethodim 2EC through an irrigation system connected to a public water system. Public water system means a system for the provision to the public of piped water for human consumption, if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days out of the year.
- Do not apply this product through any other type of irrigation system (i.e. Public Irrigation System).
- Do not connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system unless the label-prescribed safety devices for public water systems are in place.
- A person knowledgeable of the chemigation system and responsible for its operation or under supervision of the responsible person, shall shut the system down and make necessary adjustments if the need arises.
- The system must contain a functional check valve, vacuum relief valve, and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow.
- The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
- The pesticide injection pipeline must also contain a functional, normally closed solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
- The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
- The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.
- Systems must use a metering pump, 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.
- Do not apply when wind speed favors drift beyond the area intended for treatment
- 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.

Precautions

- Apply this product only through sprinkler irrigation systems including center pivot, lateral move, end tow, side (wheel) roll, travelers, big gun, solid set, or hand move. Do not apply this product through any other type of irrigation system.
- 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, contact State Extension Service specialists, equipment manufacturers or other experts.

MANDATORY SPRAY DRIFT

Aerial Applications:

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

Ground Boom Applications:

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

SPRAY DRIFT ADVISORIES

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

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

IMPORTANCE OF DROPLET SIZE

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

Controlling Droplet Size - Ground Boom

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

Controlling Droplet Size - Aircraft

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

BOOM HEIGHT - Ground Boom

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

RELEASE HEIGHT - Aircraft

Higher release heights increase the potential for spray drift.

SHIELDED SPRAYERS

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

TEMPERATURE AND HUMIDITY

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

TEMPERATURE INVERSIONS

Drift potential is high during a temperature inversion. Temperature inversions are characterized by increasing temperature with altitude and are common on nights with limited cloud cover and light to no wind. The presence of an inversion can be indicated by ground fog or by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated

cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing. Avoid applications during temperature inversions.

WIND

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

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

SPECIMEN

CROP SPECIFIC RESTRICTIONS AND LIMITATIONS FOR WILLOWOOD CLETHODIM 2EC

Crops⁽¹⁾	Minimum Time from Application to Harvest (PHI)	Use Rates Per Acre	Crop Oil Concentrate Rates Per Acre⁽²⁾	Application Instructions
Alfalfa including: Sainfoin Holy Clover Birdsfoot trefoil ⁽³⁾	15 days before grazing, feeding or harvesting (cutting) for forage or hay	6-16 fl. oz. ⁽⁴⁾ (0.094-0.250 lbs ai)	1 qt. by ground or 1% v/v (but not less than 1 pt./A) by air ⁽⁵⁾	For repeat applications, make on a minimum of a 14 day interval. Refer to tank mix partners for feeding, grazing and harvesting restrictions. ^(3,6) The addition of Ammonium Sulfate (AMS) has shown improved grass control for difficult to control species including: quackgrass, rhizome Johnsongrass, red rice, wild oats, volunteer cereals, and volunteer corn. Restrictions Do not apply more than 16 fl. oz. (0.250 lb ai) per acre per application. Do not apply more than 32 fl. oz. (0.500 lb ai) per acre per year. Do not apply more than 4 applications at the lowest rate, 6-8 fl. oz., or 2 applications at the highest rate, 16 fl. oz., per year. Do not apply this product plus 2,4-DB as a tank mix to alfalfa unless the 60-day feeding, grazing, and harvesting restriction on the 2,4-DB label can be observed.
Artichoke (Globe)	5 days	6-8 fl. oz. (0.094-0.125 lbs ai)	1% v/v in the finished spray volume.	For repeat applications, make on a minimum of a 14 day interval. Restrictions Do not apply more than 8 fl. oz. (0.125 lb ai) per acre per application. Do not apply more than 32 fl. oz. (0.500 lb ai) per acre per year. Do not apply more than 4 applications per year.
Asparagus	1 day	6-8 fl. oz. (0.094-0.125 lbs ai)	1% v/v in the finished spray volume.	For repeat applications, make on a minimum of a 14 day interval. Restrictions Do not apply more than 8 fl. oz. (0.125 lb ai) per acre in a single application. Do not apply more than 32 fl. oz. (0.500 lb ai) per acre per year. Do not apply more than 4 applications at 6-8 fl. oz. per acre per year.

Crops ⁽¹⁾	Minimum Time from Application to Harvest (PHI)	Use Rates Per Acre	Crop Oil Concentrate Rates Per Acre ⁽²⁾	Application Instructions
Bean (dry, shelled) [Dry Shelled Pea and Bean (except Soybean) Subgroup 6C] including: Bean (<i>Lupinus</i> spp.) Grain Sweet White White Sweet Bean (<i>Phaseolus</i> spp.) Field Kidney Lima (dry) Navy Pinto Tepary Bean (<i>Vigna</i> spp.) Adzuki Bean Blackeyed Pea Catjang Cowpea Crowder Pea Moth Bean Mung Bean Rice Bean Southern Pea Urd Bean Broad (dry) Chickpea (garbanzo) Guar Lablab Bean Lentil	30 days	6-16 fl. oz. (0.094-0.250 lbs ai)	1 qt. by ground or 1% v/v (but not less than 1 pt./A) by air. ⁽⁵⁾	For repeat applications, make on a minimum of 14 day interval. Refer to appropriate Table for reduced rate directions for the control of small annual grasses. The addition of Ammonium Sulfate (AMS) has shown improved grass control for difficult to control species including: quackgrass, rhizome Johnsongrass, red rice, wild oats, volunteer cereals and volunteer corn. Restrictions Do not apply more than 16 fl. oz. (0.250 lb ai) per acre per application. Do not apply more than 32 fl. oz. (0.500 lb ai) per acre per year. Do not apply more than 4 applications at the lowest rate, 6-8 fl. oz., or 2 applications at the highest rate, 16 fl. oz., per year.
Bean (succulent, shelled) [Succulent Shelled Pea and Bean Subgroup 6B] 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	6-8 fl. oz. (0.094-0.125 lbs ai)	1 qt. by ground or 1% v/v (but not less than 1 pt./A) by air. ⁽⁵⁾	Refer to appropriate Table for reduced rate directions for the control of small annual grasses. The addition of Ammonium Sulfate (AMS) has shown improved grass control for difficult to control species including: quackgrass, rhizome Johnsongrass, red rice, wild oats, volunteer cereals and volunteer corn. Restrictions Do not apply more than 8 fl. oz. (0.125 lb ai) per acre per application. Do not apply more than 8 fl. oz. (0.125 lb ai) per acre per year. Do not apply more than 1 application at 6-8 fl. oz. per acre per year.

Crops ⁽¹⁾	Minimum Time from Application to Harvest (PHI)	Use Rates Per Acre	Crop Oil Concentrate Rates Per Acre ⁽²⁾	Application Instructions
Berry, Low Growing (except cranberry and strawberry) [Low Growing Berry Subgroup 13-07G] including: Bearberry Bilberry Blueberry, lowbush Cloudberry Ligonberry Muntries Partridgeberry Cultivars, varieties, and/or hybrids of these.	45 days	4-8 fl. oz. (0.063-0.125 lbs ai)	Non-ionic surfactant (NIS) at 0.25% v/v	For repeat applications, make on a minimum of a 14 day interval. Verify crop sensitivity to Willowood Clethodim 2EC on a small area of the crop, at the desired Willowood Clethodim 2EC rate and with the same non-ionic surfactant (NIS) that will be used on the field. If no crop response is evident seven (7) days after treatment, Willowood Clethodim 2EC may be used on the entire field at the same rate tested and with the same NIS used in the sensitivity test. Restrictions Do not apply more than 8 fl. oz. (0.125 lb ai) per acre per application. Do not apply more than 32 fl. oz. (0.500 lb ai) per acre per year. Do not apply more than 4 applications at 4-8 fl. oz. per acre per year.
Brassica Vegetables, Head & Stem [Head and Stem Brassica Subgroup 5A] including: Broccoli Broccoli, Chinese Brussels sprouts Cabbage Cabbage, Chinese (napa) Cabbage, Chinese mustard Cauliflower Cavalo broccolo Kohlrabi	30 days	6-8 fl. oz. (0.094-0.125 lbs ai)	1% v/v in the finished spray volume.	For repeat applications, make on a minimum of a 14 day interval. Restrictions Do not apply more than 8 fl. oz. (0.125 lb ai) per acre per application. Do not apply more than 32 fl. oz. (0.500 lb ai) per acre per year. Do not apply more than 4 applications at 6-8 fl. oz. per acre per year.

Crops ⁽¹⁾	Minimum Time from Application to Harvest (PHI)	Use Rates Per Acre	Crop Oil Concentrate Rates Per Acre ⁽²⁾	Application Instructions
Bushberry [Bushberry Subgroup 13-07B] including: Aronia berry Blueberry, highbush Chilean guava Cranberry, highbush Currant, black Currant, buffalo Currant, native Currant, red Elderberry European Barberry Gooseberry Honeysuckle edible Huckleberry Jostaberry Juneberry Saskatoon berry Salal Sea Buckthorn Cultivars, varieties and/or hybrids of these.	14 days	6-8 fl. oz. (0.094-0.125 lbs ai)	1% v/v in the finished spray volume.	For repeat applications, make on a minimum of a 14 day interval. Apply at the base of the plant where grassy weeds are growing near the ground. Restrictions Do not apply more than 8 fl. oz. (0.125 lb ai) per acre per application. Do not apply more than 32 fl. oz. (0.500 lb. ai) per acre per year. Do not apply more than 4 applications at 6-8 fl. oz. per acre per year. Do not apply to low growing berries. Do not apply to Bushberry grown for root stock.
Caneberry [Caneberry Subgroup 13-07A] including: Blackberry Loganberry Raspberry, black Raspberry, red Raspberry, wild Cultivars, varieties and/or hybrids of these.	7 days	6-8 fl. oz. (0.094-0.125 lbs ai)	1% v/v in the finished spray volume.	For repeat applications, make on a minimum of a 14 day interval. Apply at the base of the plant where grassy weeds are growing near the ground. Restrictions Do not apply more than 8 fl. oz. (0.125 lb ai) per acre per application. Do not apply more than 32 fl. oz. (0.500 lb ai) per acre per year. Do not apply more than 4 applications at 6-8 fl. oz. per acre per year. Do not apply to low growing berries. Do not apply to Caneberry grown for root stock.

Crops ⁽¹⁾	Minimum Time from Application to Harvest (PHI)	Use Rates Per Acre	Crop Oil Concentrate Rates Per Acre ⁽²⁾	Application Instructions
Canola (except flax seed, mustard seed and sesame) Rapeseed Subgroup 20A (Not registered for use in California) Including: Borage Crambe Cuphea Echium Gold of Pleasure (Camelina) Hare's Ear Mustard Lesquerella Lunaria Meadowfoam Milkweed Oil Radish Poppy Seed Rapeseed (canola) Sweet Rocket Cultivars, varieties, and/or hybrids of these.	70 days	4-6 fl. oz. (0.063-0.094 lbs ai)	1% v/v in the finished spray volume.	Verify crop sensitivity to Willowood Clethodim 2EC on a small area of the crop at the desired Willowood Clethodim 2EC rate and with the same non-ionic surfactant (NIS) that will be used on the field. If no crop response is evident seven (7) days after treatment, Willowood Clethodim 2EC may be used on the entire field at the rate tested and with the same NIS used in the sensitivity test. Restrictions Do not apply after crop has begun bolting. Crop injury may occur when Willowood Clethodim 2EC is applied during the bloom period. Do not apply more than 6 fl. oz. (0.094 lb ai) per acre per application. Do not apply more than 6 fl. oz. (0.094 lb ai) per acre per year. Do not apply more than 1 application at 4-6 fl. oz. per acre per year.
Clover	15 days before grazing, feeding, or harvesting (cutting) for forage or hay	6-16 fl. oz. (0.094-0.250 lbs ai)	1% v/v in the finished spray volume.	For use on clover grown in the states of Idaho, Oregon and Washington only. For repeat applications, make on a minimum of a 14 day interval. Restrictions Do not apply more than 16 fl. oz. (0.250 lb ai) per acre per application. Do not exceed 16 fl. oz. (0.250 lb ai) per acre per year. Do not apply more than 2 applications at the lowest rate, 6-8 fl. oz., or 1 application at the highest rate, 16 fl. oz., per acre per year.
Corn, Field For burndown of existing stand of Roundup Ready field corn or volunteer Roundup Ready field corn prior to replanting field corn. See Directions for Use in Roundup Ready Field Corn (Burndown) table.	90 days	3 fl. oz. (0.047 lbs ai)	Do not use COC or MSO with Willowood Clethodim 2EC in this use pattern.	To control the existing stand, replant no sooner than 6 days after application. Restrictions Do not make more than 1 application at 3 fl. oz. per year. Do not apply more than 3 fl. oz./A (0.047 lb. ai) per year. Do not apply more than 3 fl. oz./A (0.047 lb. ai) per application.

Crops ⁽¹⁾	Minimum Time from Application to Harvest (PHI)	Use Rates Per Acre	Crop Oil Concentrate Rates Per Acre ⁽²⁾	Application Instructions
Cotton (including cotton grown for seed) Cottonseed Subgroup 20C including: Cottonseed Cultivars, varieties, and/or hybrids of these.	60 days	6-16 fl. oz. (0.094-0.250 lbs ai)	1 qt. by ground or 1% v/v (but not less than 1 pt./A) by air. ⁽⁵⁾	For repeat applications, make on a minimum of a 14 day interval. The addition of Ammonium Sulfate (AMS) has shown improved grass control for difficult to control species including: quackgrass, rhizome Johnsongrass, red rice, wild oats, volunteer cereals, and volunteer corn. Restrictions Do not apply more than 16 fl. oz. (0.250 lb ai) per acre per application. Do not apply more than 32 fl. oz. (0.500 lb ai) per acre per year. Do not apply more than 4 applications at the lowest rate, 6-8 fl. oz., or 2 applications at the highest rate, 16 fl. oz., per year. Do not graze treated fields or feed treated forage or hay to livestock.
Cranberry	30 days	6-8 fl. oz. (0.094-0.125 lbs ai)	1% v/v in the finished spray volume.	For repeat applications, make on a minimum of a 14 day interval. Restrictions Do not apply more than 8 fl. oz. (0.125 lb ai) per acre per application. Do not apply more than 32 fl. oz. (0.500 lb ai) per acre per year. Do not apply more than 4 applications at 6-8 fl. oz. per acre per year. Do not apply between the "hook" stage and full fruit set.
Cucurbit Vegetables, Melons [Subgroup 9A] including: Citron Melon Muskmelons (hybrids and/or cultivars of Cucumis melo) including: Cantaloupes Honeydew Melon Watermelon	14 days	6-8 fl. oz. (0.094-0.125 lbs ai)	1% v/v in the finished spray volume.	For repeat applications, make on a minimum of a 14 day interval. Restrictions Do not apply more than 8 fl. oz. (0.125 lb ai) per acre per application. Do not apply more than 32 fl. oz. (0.500 lb ai) per acre per year. Do not apply more than 4 applications at 6-8 fl. oz. per acre per year.
Cucurbit Vegetables, Squash & Cucumbers [Subgroup 9B] including: Chayote (fruit) Chinese Waxgourd Cucumber Gherkin Gourd, Edible <i>Momordica</i> spp. Pumpkin Squash (summer, winter)	14 days	6-8 fl. oz. (0.094-0.125 lbs ai)	1% v/v in the finished spray volume.	For repeat applications, make on a minimum of a 14 day interval. Restrictions Do not apply more than 8 fl. oz. (0.125 lb ai) per acre per application. Do not apply more than 32 fl. oz. (0.500 lb ai) per acre per year. Do not apply more than 4 applications at 6-8 fl. oz. per acre per year.

Crops ⁽¹⁾	Minimum Time from Application to Harvest (PHI)	Use Rates Per Acre	Crop Oil Concentrate Rates Per Acre ⁽²⁾	Application Instructions
Fallow Land Conifer Trees (and other non-producing agricultural areas) Non-Crop or Non-Planted Areas	N/A	6-16 fl. oz. (0.094-0.250 lbs ai)	1% v/v (but not less than 1 pt./A) in the finished spray volume using a crop oil concentrate containing at least 15% emulsifier.	For repeat applications, make on a minimum of a 14 day interval. Restrictions Do not apply more than 16 fl. oz. (0.250 lb ai) per acre per application. Do not apply more than 32 fl. oz. (0.500 lb ai) per acre per year. Do not apply more than 4 applications at the lowest rate, 6-8 fl. oz., or 2 applications at the highest rate, 16 fl. oz., per year. Do not plant any crop for 30 days after application unless clethodim is registered for use in that crop.
Flax (not registered for use in California)	60 days	6-8 fl. oz. (0.094-0.125 lbs ai)	1% v/v in the finished spray volume.	For repeat applications, make on a minimum of a 14 day interval. Apply prior to bloom. Crop injury may occur when Willowood Clethodim 2EC is applied during the bloom period. Restrictions Do not apply more than 8 fl. oz. (0.125 lb ai) per acre per application. Do not apply more than 16 fl. oz. (0.250 lb ai) per acre per year. Do not apply more than 2 applications at 6-8 fl. oz. per acre per year.
Fruiting Vegetables (except Tomato) [Group 8-10] including: 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.	20 days	6-8 fl. oz. (0.094-0.125 lbs ai)	1% v/v in the finished spray volume.	For repeat applications, make on a minimum of a 14 day interval. Restrictions Do not apply more than 8 fl. oz. (0.125 lb ai) per acre per application. Do not apply more than 32 fl. oz. (0.500 lb ai) per acre per year. Do not apply more than 4 applications at 6-8 fl. oz. per acre per year.

Crops ⁽¹⁾	Minimum Time from Application to Harvest (PHI)	Use Rates Per Acre	Crop Oil Concentrate Rates Per Acre ⁽²⁾	Application Instructions
Herbs [Subgroup 19A] including: Angelica Balm Basil Borage Burnet Camomile Catnip Chervil (dried) Chive Chive, Chinese Clary Coriander (leaf) Costmary Cilantro (leaf) Curry (leaf) Dill (dillweed) Horehound Hyssop Lavender Lemongrass Lovage (leaf) Marigold Marjoram (<i>Origanum</i> spp.) Nasturtium Parsley (dried) Pennyroyal Rosemary Rue Sage Savory, Summer and Winter Sweet Bay Tansy Tarragon Thyme Wintergreen Woodruff Wormwood	14 days	6-8 fl. oz. (0.094-0.125 lbs ai)	1% v/v in the finished spray volume.	For repeat applications, make on a minimum of a 14 day interval. Willowood Clethodim 2EC has not been tested on all herbs, and herb varieties. It is the responsibility of the user to test Willowood Clethodim 2EC on a small portion of the crop to be treated before treating the entire field. Verify crop sensitivity to Willowood Clethodim 2EC on a small area of the herb crop, at the desired Willowood Clethodim 2EC rate and with the same crop oil concentrate that will be used on the herb field. If no crop response is evident seven (7) days after treatment, Willowood Clethodim 2EC may be used on the entire field at the rate tested and with the same crop oil used in the sensitivity test. Restrictions Do not apply more than 8 fl. oz. (0.125 lb ai) per acre per application. Do not apply more than 32 fl. oz. (0.500 lb ai) per acre per year. Do not apply more than 4 applications at 6-8 fl. oz. per acre per year.
Hops	21 days	6-8 fl. oz. (0.094-0.125 lbs ai)	1% v/v in the finished spray volume.	For repeat applications, make on a minimum of a 14 day interval. Restrictions Do not apply more than 8 fl. oz. (0.125 lb ai) per acre per application. Do not apply more than 32 fl. oz. (0.500 lb ai) per acre per year. Do not apply more than 4 applications at 6-8 fl. oz. per acre per year.

Crops ⁽¹⁾	Minimum Time from Application to Harvest (PHI)	Use Rates Per Acre	Crop Oil Concentrate Rates Per Acre ⁽²⁾	Application Instructions
Leaf Petioles [Subgroup 4B] including: Cardoon Celery Celery, Chinese Celtuce Fennel, Florence (finocchio) Rhubarb Swiss Chard	30 days	6-8 fl. oz. (0.094-0.125 lbs ai)	1% v/v in the finished spray volume.	For repeat applications, make on a minimum of a 14 day interval. Restrictions Do not apply more than 8 fl. oz. (0.125 lb ai) per acre per application. Do not apply more than 32 fl. oz. (0.500 lb ai) per acre per year. Do not apply more than 4 applications at 6-8 fl. oz. per acre per year.
Leafy Brassica Greens [Subgroup 5B] including: Broccoli Raab Cabbage, Chinese (bok choy) Collards Kale Mizuna Mustard Greens Mustard Spinach Rape Greens	14 days	6-8 fl. oz. (0.094-0.125 lbs ai)	1% v/v in the finished spray volume.	For repeat applications, make on a minimum of a 14 day interval. Restrictions Do not apply more than 8 fl. oz. (0.125 lb ai) per acre per application. Do not apply more than 32 fl. oz. (0.500 lb ai) per acre per year. Do not apply more than 4 applications at 6-8 fl. oz. per acre per year.
Leafy Greens [Subgroup 4A] including: Amaranth Arugula (rockette) Chervil Chrysanthemum, Edible-leaved Chrysanthemum, Garland Corn Salad Cress, Garden Upland Dandelion Dock (sorrel) Endive (escarole) Lettuce Orach Parsley Purslane, Garden Winter Radicchio (red chicory) Spinach New Zealand Vine (Indian and malabar)	14 days	6-8 fl. oz. (0.094-0.125 lbs ai)	1% v/v in the finished spray volume.	For repeat applications, make on a minimum of a 14 day interval. Restrictions Do not apply more than 8 fl. oz. (0.125 lb ai) per acre per application. Do not apply more than 32 fl. oz. (0.500 lb ai) per acre per year. Do not apply more than 4 applications at 6-8 fl. oz. per acre per year.

Crops ⁽¹⁾	Minimum Time from Application to Harvest (PHI)	Use Rates Per Acre	Crop Oil Concentrate Rates Per Acre ⁽²⁾	Application Instructions
Legume Vegetables, Edible Podded (except soybean) [Edible-Podded Legume Vegetables Subgroup 6A] including: Bean (<i>Phaseolus</i> spp.) Runner Snap Wax Bean (<i>Vigna</i> spp.) Asparagus Chinese Longbean Moth Yardlong Jackbean Pea (<i>Pisum</i> spp.) Dwarf Edible-pod Snow Sugar Snap Pigeon Pea Sword Bean	21 days	6-8 fl. oz. (0.094-0.125 lbs ai)	1 qt. by ground or 1% v/v (but not less than 1 pt./A) by air. ⁽⁵⁾	For peas, apply before bloom, but no later than 21 days before harvest. Refer to appropriate Table for reduced rate directions for the control of small annual grasses. The addition of Ammonium Sulfate (AMS) has shown improved grass control for difficult to control species including: quackgrass, rhizome Johnsongrass, red rice, wild oats, volunteer cereals, and volunteer corn. Restrictions Do not apply more than 8 fl. oz. (0.125 lb ai) per acre per application. Do not apply more than 8 fl. oz. (0.125 lb ai) per acre per year. Do not apply more than 1 application at 6-8 fl. oz. per acre per year.
Mint (peppermint & spearmint tops)	21 days	6-16 fl. oz. ⁽⁴⁾ (0.094-0.250 lbs ai)	1 qt. by ground or 1% v/v (but not less than 1 pt./A by air.)	For repeat applications, make on a minimum of a 14 day interval. Restrictions Do not apply more than 16 fl. oz. (0.250 lb ai) per acre per application. Do not apply more than 32 fl. oz. (0.500 lb ai) per acre per year. Do not apply more than 4 applications at the lowest rate, 6-8 fl. oz., or 2 applications at the highest rate, 16 fl. oz., per year.
Mustard Seed (not registered for use in California)	75 days	4-6 fl. oz. (0.063-0.094 lbs ai)	1% v/v in the finished spray volume.	Restrictions Do not apply more than 6 fl. oz. (0.094 lb ai) per acre per application. Do not exceed 12 fl. oz. (0.188 lb ai) per acre per year. Do not apply more than 2 applications at 4-6 fl. oz. per acre per year. Do not apply after crop has begun bolting. Crop injury may occur when Willowood Clethodim 2EC is applied during the bloom period.

Crops ⁽¹⁾	Minimum Time from Application to Harvest (PHI)	Use Rates Per Acre	Crop Oil Concentrate Rates Per Acre ⁽²⁾	Application Instructions
Pea, Dry Shelled [Dry Shelled Pea and Bean (except Soybean) Subgroup 6C] including: Pea (<i>Pisum</i> spp.) Field Pigeon Pea	30 days	6-8 fl. oz. (0.094-0.125 lbs ai)	1 qt. by ground or 1% v/v (but not less than 1 pt./A) by air ⁽⁵⁾	Apply before bloom but not later than 30 days prior to harvest. ⁽¹⁰⁾ Refer to appropriate Table for reduced rate directions for the control of small annual grasses. The addition of Ammonium Sulfate (AMS) has shown improved grass control for difficult to control species including: quackgrass, rhizome Johnsongrass, red rice, wild oats, volunteer cereals and volunteer corn. Restrictions Do not apply more than 8 fl. oz. (0.125 lb ai) per acre per application. Do not apply more than 8 fl. oz. (0.125 lb ai) per acre per year. Do not apply more than 1 application at 6-8 fl. oz. per acre per year.
Pea, Succulent [Succulent Shelled Pea and Bean Subgroup 6B] including: Pea (<i>Pisum</i> spp.) English Garden Green Pigeon Pea	21 days	6-8 fl. oz. (0.094-0.125 lbs ai)	1 qt. by ground or 1% v/v (but not less than 1 pt./A) by air ⁽⁵⁾	Apply before bloom but not later than 21 days prior to harvest. ⁽¹⁰⁾ Refer to appropriate Table for reduced rate directions for the control of small annual grasses. The addition of Ammonium Sulfate (AMS) has shown improved grass control for difficult to control species including: quackgrass, rhizome Johnsongrass, red rice, wild oats, volunteer cereals, and volunteer corn. Restrictions Do not apply more than 8 fl. oz. (0.125 lb ai) per acre per application. Do not apply more than 8 fl. oz. (0.125 lb ai) per acre per year. Do not apply more than 1 application at 6-8 fl. oz. per acre per year.
Peanut (including Perennial)	40 days	6-16 fl. oz. (0.094-0.250 lbs ai)	1 qt. by ground or 1% v/v (but not less than 1 pt./A) by air ⁽⁵⁾	The addition of Ammonium Sulfate (AMS) has shown improved grass control for difficult to control species including: quackgrass, rhizome Johnsongrass, red rice, wild oats, volunteer cereals, and volunteer corn. Restrictions Do not apply more than 16 fl. oz. (0.250 lb ai) per acre per application. Do not apply more than 32 fl. oz. (0.500 lb ai) per acre per year. Do not apply more than 4 applications at the lowest rate, 6-8 fl. oz., or 2 applications at the highest rate, 16 fl. oz., per year.

Crops ⁽¹⁾	Minimum Time from Application to Harvest (PHI)	Use Rates Per Acre	Crop Oil Concentrate Rates Per Acre ⁽²⁾	Application Instructions
Pome Fruit [Group 11-10] including: Apple Azarole Crabapple Loquat Mayhaw Hook. & Arn., and <i>C. rufula</i> Sarg. Medlar Pear Pear, Asian Pseudocdonia sinensis Quince Quince, Chinese Quince, Japanese Tejocote Cultivars, varieties and/or hybrids of these.	14 days	4-8 fl. oz. (0.063-0.125 lbs ai)	Non-ionic surfactant (NIS) at 0.25% v/v	For repeat applications, make on a minimum of a 14 day interval. Restrictions Do not apply more than 8 fl. oz. (0.125 lb ai) per acre per application. Do not apply more than 32 fl. oz. (0.500 lb ai) per acre per year. Do not apply more than 4 applications at 4-8 fl. oz. per acre per year.
Potato	30 days	6-16 fl. oz. (0.094-0.250 lbs ai)	1 qt. by ground or 1% v/v (but not less than 1 pt./A) by air ⁽⁵⁾	For repeat applications, make on a minimum of a 14 day interval. The addition of Ammonium Sulfate (AMS) has shown improved grass control for difficult to control species including: quackgrass, rhizome Johnsongrass, red rice, wild oats, volunteer cereals, and volunteer corn. Restrictions Do not apply more than 16 fl. oz. (0.250 lb ai) per acre per application. Do not apply more than 32 fl. oz. (0.500 lb ai) per acre per year. Do not apply more than 4 applications at the lowest rate, 6-8 fl. oz., or 2 applications at the highest rate, 16 fl. oz., per year.
Radish	15 days	6-8 fl. oz. (0.094-0.125 lbs ai)	1% v/v in the finished spray volume	For repeat applications, make on a minimum of a 14 day interval. Restrictions Do not apply more than 8 fl. oz. (0.125 lb ai) per acre per application. Do not apply more than 16 fl. oz. (0.250 lb ai) per acre per year. Do not apply more than 2 applications at 6-8 fl. oz. per acre per year.

Crops ⁽¹⁾	Minimum Time from Application to Harvest (PHI)	Use Rates Per Acre	Crop Oil Concentrate Rates Per Acre ⁽²⁾	Application Instructions
Root Vegetables (except Radish) (Sub-group 1B), including: Beet, Garden Burdock, edible Carrot Celeriac Chervil, Turnip-Rooted Chicory Ginseng Horseradish Parsley, Turnip-Rooted Parsnip Radish, Oriental Rutabaga Salsify Black Spanish Skirret Turnip	30 days	6-8 fl. oz. (0.094-0.125 lbs ai)	1% v/v in the finished spray volume	For repeat applications, make on a minimum of a 14 day interval. Restrictions Do not apply more than 8 fl. oz. (0.125 lb ai) per acre per application. Do not apply more than 32 fl. oz. (0.500 lb ai) per acre per year. Do not apply more than 4 applications at 6-8 fl. oz. per acre per year.
Safflower	70 days	6-8 fl. oz. (0.094-0.125 lbs ai)	1% v/v in the finished spray volume	For repeat applications, make on a minimum of a 14 day interval. Restrictions Do not apply more than 8 fl. oz. (0.125 lb ai) per acre per application. Do not apply more than 32 fl. oz. (0.500 lb ai) per acre per year. Do not apply more than 4 applications at 6-8 fl. oz. per acre per year.
Sesame	14 days	6-8 fl. oz. (0.094-0.125 lbs ai)	1% v/v in the finished spray volume	For repeat applications, make on a minimum of a 14 day interval. Restrictions Do not apply more than 8 fl. oz. (0.125 lb ai) per acre per application. Do not apply more than 32 fl. oz. (0.500 lb ai) per acre per year. Do not apply more than 4 applications at 6-8 fl. oz. per acre per year. Do not apply during flowering.

Crops ⁽¹⁾	Minimum Time from Application to Harvest (PHI)	Use Rates Per Acre	Crop Oil Concentrate Rates Per Acre ⁽²⁾	Application Instructions
Soybean	60 days	6-16 fl. oz. (0.094-0.250 lbs ai)	1 qt. by ground or 1% v/v (but not less than 1 pt./A) by air ⁽³⁾	Refer to appropriate Table for reduced rate directions for the control of small annual grasses. The addition of Ammonium Sulfate (AMS) has shown improved grass control for difficult to control species including: quackgrass, rhizome Johnsongrass, red rice, wild oats, volunteer cereals, and volunteer corn. Restrictions Do not apply more than 16 fl. oz. (0.250 lb ai) per acre per application. Do not apply more than 32 fl. oz. (0.500 lb ai) per acre per year. Do not apply more than 4 applications at the lowest rate, 6-8 fl. oz., or 2 applications at the highest rate, 16 fl. oz., per year. Do not graze treated fields or feed treated forage or hay to livestock.
Stevia, dried leaves	14 days	4-8 fl. oz. (0.063-0.125 lbs ai)	Non-ionic surfactant (NIS) at 0.25% v/v	For repeat applications, make on a minimum of a 14 day interval. Willowood Clethodim 2EC has not been tested on all varieties. It is the responsibility of the user to test Willowood Clethodim 2EC on a small portion of the crop to be treated before treating the entire field. Verify crop sensitivity to Willowood Clethodim 2EC on a small area of the crop at the desired Willowood Clethodim 2EC rate and with the same non-ionic surfactant (NIS) that will be used on the field. If no crop response is evident seven (7) days after treatment, Willowood Clethodim 2EC may be used on the entire field at the rate tested and with the same NIS used in the sensitivity test. Restrictions Do not apply more than 8 fl. oz. (0.125 lb ai) per acre per application. Do not apply more than 32 fl. oz. (0.500 lb ai) per acre per year. Do not apply more than 4 applications at 4-8 fl. oz. per acre per year.

Crops ⁽¹⁾	Minimum Time from Application to Harvest (PHI)	Use Rates Per Acre	Crop Oil Concentrate Rates Per Acre ⁽²⁾	Application Instructions
Stone Fruit [Group 12-12] including: Apricot Apricot, Japanese Capulin Cherry, Black Cherry, Nanking Cherry, Sweet Cherry, Tart Jujube, Chinese Nectarine Peach Plum Plum, American Plum, Beach Plum, Canada Plum, Cherry Plum, Chickasaw Plum, Damson Plum, Japanese Plum, Klamath Plum, Prune Plumcot Sloe Cultivars, varieties, and/or hybrids of these.	14 days	4-8 fl. oz. (0.063-0.125 lbs ai)	Non-ionic Surfactant (NIS) at 0.25% v/v	For repeat applications, make on a minimum of a 14 day interval. Restrictions Do not apply more than 8 fl. oz. (0.125 lb ai) per acre per application. Do not apply more than 32 fl. oz. (0.500 lb ai) per acre per year. Do not apply more than 4 applications at 4-8 fl. oz. per acre per year.
Strawberry	4 days	6-8 fl. oz. (0.094-0.125 lbs ai)	1% v/v in the finished spray volume	For repeat applications, make on a minimum of a 14 day interval. Restrictions Do not apply more than 8 fl. oz. (0.125 lb ai) per acre per application. Do not apply more than 32 fl. oz. (0.500 lb ai) per acre per year. Do not apply more than 4 applications at 6-8 fl. oz. per acre per year.
Sugar Beet	40 days	6-16 fl. oz. (0.094-0.250 lbs ai)	1 qt. by ground or 1% v/v (but not less than 1 pt./A) by air ⁽⁵⁾	For repeat applications, make on a minimum of a 14 day interval. Refer to appropriate Table for reduced rate directions for the control of small annual grasses. The addition of Ammonium Sulfate (AMS) has shown improved grass control for difficult to control species including: quackgrass, rhizome Johnsongrass, red rice, wild oats, volunteer cereals, and volunteer corn. Restrictions Do not apply more than 16 fl. oz. (0.250 lb ai) per acre per application. Do not apply more than 32 fl. oz. (0.500 lb ai) per acre per year. Do not apply more than 4 applications at the lowest rate, 6-8 fl. oz., or 2 applications at the highest rate, 16 fl. oz., per year.

Crops ⁽¹⁾	Minimum Time from Application to Harvest (PHI)	Use Rates Per Acre	Crop Oil Concentrate Rates Per Acre ⁽²⁾	Application Instructions
Sunflower (except safflower) [Subgroup 20B] including: Calendula Castor Oil Plant Chinese Tallowtree Euphorbia Evening Primrose Jojoba Niger Seed Rose Hip Stokes Aster Tallowwood Tea Oil Plant Vernonia Cultivars, varieties, and/or hybrids of these.	70 days	6-16 fl. oz. (0.094-0.250 lbs ai)	1 qt. by ground or 1% v/v (but not less than 1 pt./A) by air ⁽³⁾	For repeat applications, make on a minimum of a 14 day interval. The addition of Ammonium Sulfate (AMS) has shown improved grass control for difficult to control species including: quackgrass, rhizome Johnsongrass, red rice, wild oats, volunteer cereals, and volunteer corn. Verify crop sensitivity to Willowood Clethodim 2EC on a small area of the crop at the desired Willowood Clethodim 2EC rate and with the same crop oil that will be used on the field. If no crop response is evident seven (7) days after treatment, Willowood Clethodim 2EC may be used on the entire field at the rate tested and with the same crop oil used in the sensitivity test. Restrictions Do not apply more than 16 fl. oz. (0.250 lb ai) per acre per application. Do not apply more than 32 fl. oz. (0.500 lb ai) per acre per year. Do not apply more than 4 applications at the lowest rate, 6-8 fl. oz., or 2 applications at the highest rate, 16 fl. oz., per year.
Tuberous and Corm Vegetables (except Potato) [Subgroup 1C] including: Arracacha Arrowroot Artichoke Chinese Jerusalem Canna, edible Cassava Bitter Sweet Chayote (root) Chufa Dasheen Ginger Leren Sweet Potato Tanier Turmeric Yam bean Yam, true	30 days	6-16 fl. oz. (0.094-0.250 lbs ai)	1% v/v in the finished spray volume	For repeat applications, make on a minimum of a 14 day interval. The addition of Ammonium Sulfate (AMS) has shown improved grass control for difficult to control species including: quackgrass, rhizome Johnsongrass, red rice, wild oats, volunteer cereals and volunteer corn. Restrictions Do not apply more than 16 fl. oz. (0.250 lb ai) per acre per application. Do not apply more than 32 fl. oz. (0.500 lb ai) per acre per year. Do not apply more than 4 applications at the lowest rate, 6-8 fl. oz., or 2 applications at the highest rate, 16 fl. oz., per year.

Crops ⁽¹⁾	Minimum Time from Application to Harvest (PHI)	Use Rates Per Acre	Crop Oil Concentrate Rates Per Acre ⁽²⁾	Application Instructions
Tomato	20 days	6-16 fl. oz. (0.094-0.250 lbs ai)	1% v/v in the finished spray volume	For repeat applications, make on a minimum of a 14 day interval. Restrictions Do not apply more than 16 fl. oz. (0.250 lb ai) per acre per application. Do not apply more than 32 fl. oz. (0.500 lb ai) per acre per year. Do not apply more than 4 applications at the lowest rate, 6-8 fl. oz., or 2 applications at the highest rate, 16 fl. oz., per year.
Turnip Greens	14 days	6-8 fl. oz. (0.094-0.125 lbs ai)	1% v/v in the finished spray volume	For repeat applications make on a minimum of a 14-day interval. Restriction Do not apply more than 8 fl. oz. (0.125 lb ai) per acre in a single application. Do not apply more than 32 fl. oz. (0.500 lb ai) per acre per year. Do not apply more than 4 applications at 6-8 fl. oz. per acre per year.

N/A = Not Applicable

¹ Willowood Clethodim 2EC is not to be used on vegetable crops being grown for seed production unless specific use directions are provided.

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

³ Willowood Clethodim 2EC may be applied to seedling or established alfalfa grown for seed, hay, silage, green crop or direct grazing.

⁴ For weed control in established alfalfa and mint, the minimum use rate is 10 fl. oz./A (0.156 lb ai/A).

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

⁶ Restriction: Do not apply Willowood Clethodim 2EC plus 2,4-DB as a tank mix to alfalfa unless the 60 day feeding, grazing, and harvesting restriction on the 2,4-DB label can be observed.

⁷ For ground applications to garlic or shallot, do not exceed 8 fl. oz./A (0.125 lb ai/A) in a single application. For air applications to onion, garlic or shallot, do not exceed 8 fl. oz./A (0.125 lb ai/A) in a single application. For garlic and shallot, do not exceed 2 applications per year. In CA for air applications to onion, do not exceed 2 applications per year.

⁸ If Willowood Clethodim 2EC is applied as a spot treatment to onion, garlic or non-bearing food crops, do not exceed the maximum rate allowed on a "per acre" basis.

⁹ Restriction: In California, do not apply Willowood Clethodim 2EC to onion or garlic until the crop has at least two full leaves. In California, 14 day spray intervals are specified between the application of Willowood Clethodim 2EC and liquid nitrogen or other herbicide applications. Injury to crop may occur when shorter intervals are observed.

¹⁰ Applications of Willowood Clethodim 2EC to peas during the bloom period could result in severe crop injury, including loss of yield and delayed maturity.

IMPORTANT

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

NON-BEARING FOOD CROPS

RESTRICTION:

- **DO NOT APPLY WILLOWOOD CLETHODIM 2EC TO NON-BEARING FRUIT OR NUT CROPS WHICH ARE GROWN FOR ROOT STOCK.**
- Do not apply more than 8 fl. oz. (0.125 lb ai) per acre in a single application.
- Do not apply more than 32 fl. oz. (0.500 lb ai) per acre per year.
- Do not apply more than 4 applications at 4-8 fl. oz. per year.

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

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

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

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

COMMON NAME	SCIENTIFIC NAME
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.

SPECIMEN

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.

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

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

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

GRASS SPECIES	SCIENTIFIC NAME	WEED HEIGHT* (inches)	RATE FL. OZ./ACRE ⁽¹⁾	HIGH RATE ⁽²⁾
Red Rice	<i>Oryza sativa</i>	1 to 3	6	8
Ryegrass				
Hardy	<i>Lolium remotum</i>	2 to 6	6	8
Italian	<i>Lolium multiflorum</i>	2 to 6	6	8
Seedling Johnsongrass	<i>Sorghum halepense</i>	4 to 10	6	8
Shattercane	<i>Sorghum bicolor</i>	6 to 18	6	8
Southwestern Cupgrass	<i>Eriochloa gracilis</i>	2 to 6	6	8
Sprangle top				
Amazon	<i>Leptochloa panicoides</i>	2 to 6	6	8
Bearded	<i>Leptochloa fascicularis</i>	2 to 6	6	8
Mexican	<i>Leptochloa uninervia</i>	2 to 6	6	8
Red	<i>Leptochloa filiformis</i>	2 to 6	6	8
Texas Panicum	<i>Panicum texanum</i>	2 to 6	6	8
Volunteer Cereals ⁽³⁾				
Barley	<i>Hordeum vulgare</i>	2 to 6	6	8
Oats	<i>Avena sativa</i>	2 to 6	6	8
Rye	<i>Secale cereal</i>	2 to 6	6	8
Wheat	<i>Triticum aestivum</i>	2 to 6	6	8
Volunteer Corn ⁽⁴⁾	<i>Zea mays</i>	4 to 12	4	6
Volunteer Corn ⁽⁴⁾	<i>Zea mays</i>	12 to 24	6	8
Volunteer Corn (S.R.) ⁽⁵⁾	<i>Zea mays</i>	4 to 12	8 (suppression only)	
Volunteer Grain Sorghum	<i>Sorghum bicolor</i>	8 to 12	6	8
Wild Oats	<i>Avena fatua</i>	2 to 6	6	8
Wild Proso Millet	<i>Panicum miliaceum</i>	2 to 10	6	8
Witchgrass	<i>Panicum capillare</i>	2 to 8	6	8
Woolly Cupgrass	<i>Eriochloa villosa</i>	2 to 8	6	8

* Generally occurs between 3-leaf stage and tillering.

** Length of lateral growth.

(1) 4 fl. oz./A (0.063 lbs ai/A); 6 fl. oz./A (0.094 lbs ai/A); 8 fl. oz./A (0.125 lbs ai/A).

(2) Rates higher than 8 fl. oz./A (0.125 lb ai/A) may be applied in certain geographic areas, cropping situations, or environmental conditions, where experience has shown that higher rates are needed for satisfactory control of annual grasses. In these situations, rates from 8 to 16 fl. oz./A (0.125 to 0.250 lb ai/A) may be applied. **Restrictions:** Do not exceed the maximum per application rate listed in the table, **CROP SPECIFIC RESTRICTIONS AND LIMITATIONS FOR WILLOWOOD CLETHODIM 2EC**. Do not exceed the maximum yearly rate listed in the table, **CROP SPECIFIC RESTRICTIONS AND LIMITATIONS FOR WILLOWOOD CLETHODIM 2EC**. Do not exceed the maximum number of annual applications listed in the table, **CROP SPECIFIC RESTRICTIONS AND LIMITATIONS FOR WILLOWOOD CLETHODIM 2EC**.

(3) When a cereal grain crop (such as wheat) is interseeded for crop establishment or is planted as wind breaks to aid crop establishment, the minimum Willowood Clethodim 2EC use rate for control is 8 fl. oz./A (0.125 lb ai/A).

(4) Includes Roundup Ready®, Liberty Link®, and volunteer corn.

(5) Poast Protected®.

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

GRASS SPECIES	WEED STAGE	RATE FL. OZ./ ACRE	HIGH RATE
Annual & Perennial Grasses Listed in Grass Table	See Table	10 (0.156 lbs ai)	16 (0.250 lbs ai)

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

Irrigated Alfalfa and Mint: Irrigation practices can be very critical to the successful use of Willowood Clethodim 2EC in established alfalfa and mint and may be necessary to initiate active growth of the weeds prior to application. Generally, applications 2 to 4 days after 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 Willowood Clethodim 2EC in a minimum of 10 GPA in established alfalfa and mint when applying by air.

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

Perennial Grass Control: Willowood Clethodim 2EC 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 perennial crops including established alfalfa or mint. A program of repeated applications is usually necessary for best results. The best way to control perennial grasses is to do so in the year of stand establishment before rhizomes and stolons become large and difficult to kill.

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

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

Restrictions

- Do not apply more than 16 fl. oz. (0.250 lb ai) per acre per application.
- Do not apply more than 32 fl. oz. (0.500 lb ai) per acre per year.
- Do not apply more than 3 applications at the lowest rate, 10 fl. oz., or 2 applications at the highest rate, 16 fl. oz., per year.

DIRECTIONS FOR ANNUAL BLUEGRASS CONTROL WITH WILLOWOOD CLETHODIM 2EC			
GRASS SPECIES	WEED STAGE	RATE FL. OZ./ ACRE	HIGH RATE
Annual Bluegrass (<i>Poa annua</i>)	to 4-leaf	6* (0.094 lbs ai)	16 (0.250 lbs ai)
Apply under favorable soil moisture and humidity, which exists within a few days after rainfall or within 7 days after irrigation. Grass needs to be actively growing at time of application(s). Apply at weed stage indicated on the label, as reduced control can be expected with more mature annual bluegrass. Use the high rate under heavy grass pressure and/or when annual bluegrass is more mature. Note: Always add a crop oil concentrate at 1 qt./A by ground to the finished spray volume. *Use a minimum of 10 fl. oz./A (0.156 lb ai/A) to control annual bluegrass in seedling and established alfalfa and mint.			
Restrictions - Do not apply more than 16 fl. oz. (0.250 lb ai) per acre per application. - Do not apply more than 64 fl. oz. (1.000 lb ai) per acre per year. - Do not apply more than 4 applications per year.			

DIRECTIONS FOR USE IN ROUNDUP READY FIELD CORN (BURNDOWN)		
GRASS SPECIES	WEED SIZE (inches)	Rate when applied alone or with glyphosate
Field Corn	Up to 12	3 fl. oz./A (0.047 lbs ai)
For control of existing stand of Roundup Ready field corn or volunteer Roundup Ready field corn prior to replanting 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. Adjuvants: NIS at 0.25% v/v plus AMS at 2.5 to 4 lbs./A. Do not use COC or MSO with Willowood Clethodim 2EC in this use pattern.		
Restrictions - Do not apply more than 3 fl. oz. (0.05 lb ai) per acre per application. - Do not apply more than 12 fl. oz. (0.19 lb ai) per acre per year. - Do not apply more than 4 applications at 3 fl. oz. per year.		

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

- Apply only to actively growing grasses at listed weed heights.
- Apply when the first grass weed species in a mixed grass weed population reaches the advised 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 5 fl. oz. (0.078 lb ai) per acre per application.
- Do not apply more than 20 fl. oz. (0.313 lb ai) per acre per year.
- Do not apply more than 4 applications at 4-5 fl. oz. per year.

GRASS SPECIES	SCIENTIFIC NAME	WEED HEIGHT (inches)	RATE FL. OZ./ ACRE ^(1,2)
Barnyardgrass	<i>Echinochloa crus-galli</i>	1 to 4	4
Broadleaf Signalgrass	<i>Brachiaria platyphlla</i>	1 to 4	5
Crabgrass			
Large	<i>Digitaria sanguinalis</i>	1 to 3*	4
Large	<i>Digitaria sanguinalis</i>	1 to 4*	5
Smooth	<i>Digitaria ischaemum</i>	1 to 3*	4
Smooth	<i>Digitaria ischaemum</i>	1 to 4*	5
Southern	<i>Digitaria ciliaris</i>	1 to 4*	5
Fall Panicum	<i>Panicum dichotomiflorum</i>	1 to 4	4
Foxtail			
Giant	<i>Setaria faberi</i>	1 to 4	4
Green	<i>Setaria viridis</i>	1 to 4	4
Millet	<i>Setaria italic</i>	1 to 4	5
Yellow	<i>Setaria glauca</i>	1 to 4	4
Seedling Johnsongrass	<i>Sorghum halepense</i>	1 to 6	5
Shattercane	<i>Sorghum bicolor</i>	4 to 10	4
Texas Panicum	<i>Panicum texanum</i>	1 to 4	5
Volunteer Cereals			
Barley	<i>Hordeum vulgare</i>	1 to 4	5
Oats	<i>Avena sativa</i>	1 to 4	5
Wheat	<i>Triticum aestivum</i>	1 to 4	5
Volunteer Corn**	<i>Zea mays</i>	4 to 12	4
Wild Proso Millet	<i>Panicum miliaceum</i>	1 to 6	4
Wild Oats	<i>Avena fatua</i>	1 to 4	5

* Length of lateral growth

** Not S.R. Corn

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

(2) 4 fl. oz./A (0.063 lbs ai/A); 5 fl. oz./A (0.078 lbs ai/A)

DIRECTIONS FOR PERENNIAL GRASSES

- Apply only to actively growing grasses at listed weed heights.
- Apply when the first grass weed species in a mixed grass weed population reaches the advised 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 the table, **CROP SPECIFIC RESTRICTIONS AND LIMITATIONS FOR WILLOWOOD CLETHODIM 2EC.**
- Do not exceed the maximum yearly rate listed in the table, **CROP SPECIFIC RESTRICTIONS AND LIMITATIONS FOR WILLOWOOD CLETHODIM 2EC.**
- Do not exceed the maximum number of annual applications listed in the table, **CROP SPECIFIC RESTRICTIONS AND LIMITATIONS FOR WILLOWOOD CLETHODIM 2EC.**

GRASS SPECIES	WEED HEIGHT (inches)	RATE FL. OZ./ ACRE ⁽¹⁾	HIGH RATE
Bermudagrass (<i>Cynodon dactylon</i>)			
First Application	3 (or up to 6" runners)	8	16
Repeat Application(s) (if regrowth occurs)	3 (or up to 6" runners)	8	16
Fescue, Tall (<i>Festuca arundinacea</i>)			
First Application	4 to 8	8	16
Repeat Application(s) (if regrowth occurs)	4 to 8	8	16
Foxtail Barley (<i>Hordeum jubatum</i>)			
First Application	2 to 6	8	16
Repeat Application(s) (if regrowth occurs)	2 to 6	8	16
Orchardgrass (<i>Dactylis glomerata</i>)			
First Application	4 to 8	8	16
Repeat Application(s) (if regrowth occurs)	4 to 8	8	16
Quackgrass* (<i>Elytrigia repens</i>)			
First Application	4 to 12	8	16
Repeat Application(s) (if regrowth occurs)	4 to 12	8	16
Rhizome Johnsongrass (<i>Sorghum halepense</i>)			
First Application	12 to 24	8	16
Repeat Application(s) (if regrowth occurs)	6 to 18	6	8
Wirestem Muhly (<i>Muhlenbergia frondosa</i>)			
First Application	4 to 8	8	16
Repeat Application(s) (if regrowth occurs)	4 to 8	8	16

GRASS SPECIES	WEED HEIGHT (inches)	RATE FL. OZ./ ACRE ⁽¹⁾	HIGH RATE
Perennial Bluegrass*			
Roughstalk (<i>Poa trivialis</i>)			
Kentucky (<i>Poa prantensis</i>)			
First Application	2 to 4	8	16
Repeat Application(s) (if regrowth occurs)	2 to 4	8	16
Bentgrass* (<i>Agrostis</i> spp.)			
First Application	2 to 4	-	16
Repeat Application(s) (if regrowth occurs)	2 to 4	-	16

*Control of quackgrass, perennial bluegrass and bentgrass with Willowood Clethodim 2EC may be enhanced by adding Ammonium Sulfate (AMS) at 2.5 to 4.0 lbs./A.

⁽¹⁾ 8 fl. oz./A (0.125 lbs ai/A); 16 fl. oz./A (0.250 lbs ai/A)

TANK MIXES PRODUCT INFORMATION

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

1. **Always read and follow the restrictions and limitations for all products whether used alone or in a tank mix. The most restrictive labeling of any product used applies in tank mixtures, including all crop rotational and other crop restrictions.**
2. Geographic restrictions – all products are not registered for use in all areas and rates may vary from one region of labeled use to another;
3. Crop rotation restrictions;
4. Applicator certification requirements;
5. Worker safety rules (e.g. protective clothing, reentry time, posting);
6. Soil type or soil characteristics (e.g. pH, OM);
7. Maximum dosage or number of applications per year;
8. Rain free period required; or
9. Application timing (e.g. pre-harvest interval)
10. Do not exceed the total annual rates.

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

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

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

- Apply only to actively growing grass and broadleaf weeds at the height or growth stage listed on each label.
- Apply when the first grass or broadleaf weed species in a mixed population reaches the labeled height or growth stage for treatment.
- Apply under favorable soil moisture and humidity that exist a few days after rainfall or within seven (7) days after irrigation.
- Always add the appropriate adjuvant to the spray mix at the rate specified for each specific tank mix combination.
- Tank mix 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 Willowood Clethodim 2EC, as specified in the respective size and rate tables.
- Do not tank mix Willowood Clethodim 2EC when broadleaf weeds are tall and/or dense enough to prevent proper grass coverage.

MIXING INSTRUCTIONS

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

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

INFORMATION ON ANTAGONISM

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

SPECIMEN

ALFALFA

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

PRODUCT ⁽²⁾	APPLICATION RATES/ACRE ⁽¹⁾		CROP OIL CONCENTRATE ⁽³⁾ (V/V)	
	ANNUAL GRASSES	PERENNIAL GRASSES	GROUND	AIR
Willowood Clethodim 2EC + 2,4-DB ⁽⁴⁾	10 to 16 fl. oz. (0.156-0.250 lbs. a.i.) + Refer to product label for use rates.	10 to 16 fl. oz. (0.156-0.250 lbs. a.i.) + Refer to product label for use rates.	1%	1%
Willowood Clethodim 2EC + Imazethapyr ⁵	10 to 16 fl. oz. (0.156-0.250 lbs. a.i.) + Refer to product label for use rates.	-	1%	1%
Willowood Clethodim 2EC + bromoxynil octanoate ⁶	10 to 16 fl. oz. (0.156-0.250 lbs. a.i.)+ Refer to product label for use rates.	-	0.5%	0.5%

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

- (1) If grass regrowth occurs or an additional flush of new grass emerges, make a second application of Willowood Clethodim 2EC alone (without a tank mix herbicide), according to the appropriate size and rate requirements.
- (2) Broadleaf weed control may be reduced when grass populations are tall or dense enough to intercept the spray pattern and prevent them from receiving complete coverage. Tank mixing is not advised in these situations.
- (3) Always use a crop oil concentrate at the listed rate (but not less than 1 pt./A) in the finished spray volume.
- (4) Willowood Clethodim 2EC 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.
- (5) Before using this tank mix, read and understand the imazethapyr labels for geographical restrictions and restrictions regarding alfalfa growth stage and type. Failure to do so can result in crop injury to alfalfa.
- (6) In the states of Washington, Oregon, Idaho, Montana, Wyoming, Colorado, Utah, Nevada and the western halves of North Dakota, South Dakota, Nebraska, and Kansas: The Willowood Clethodim 2EC plus bromoxynil octanoate tank mix must be applied in the fall or spring to seedling alfalfa when the majority of the field has a minimum of 2 trifoliate leaves. Unacceptable crop injury may occur to alfalfa seedlings less than the 2 trifoliate leaf stage. Willowood Clethodim 2EC plus bromoxynil octanoate applications made when temperatures are expected to exceed 80°F at (and 3 days following) application can result in unacceptable crop injury. In the states not listed above, apply in the fall or spring to seedling alfalfa when the majority of the field has a minimum of 4 trifoliate leaves. When the alfalfa stand is uneven and conditions favor leaf burn, unacceptable crop injury may occur to alfalfa in the 2 trifoliate or smaller stage of growth. Willowood Clethodim 2EC plus bromoxynil octanoate applications made when temperatures are expected to exceed 70°F at (and 3 days following) application can result in unacceptable crop injury. Crop leaf burn can occur following Willowood Clethodim 2EC plus bromoxynil octanoate or application. Warm, humid conditions may enhance leaf burn. New crop growth will not be affected.

CANOLA (EXCEPT FLAX)

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

Table 2. REDUCED RATE WILLOWOOD CLETHODIM 2EC TANK MIXES WITH BROADLEAF HERBICIDES

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

PRODUCT	APPLICATION RATES/ACRE		AMMONIUM SULFATE	
	ANNUAL GRASSES ⁽¹⁾	PERENNIAL GRASSES	GROUND	AIR
Willowood Clethodim 2EC + glufosinate ⁽²⁾	4 to 5 fl. oz. (0.063-0.078 lbs. a.i.) + Refer to product label for use rates.	-	3.0 lbs.	3.0 lbs.

Restriction: Do not apply Willowood Clethodim 2EC tank mix during or after bolting or flowering or crop injury may occur.

(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) For use only on LibertyLink® canola.

COTTON

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

PRODUCT ⁽¹⁾	APPLICATION RATES/ACRE ⁽²⁾		CROP OIL CONCENTRATE ⁽³⁾ V/V	COMMENTS
	ANNUAL GRASSES	PERENNIAL GRASSES	GROUND	
Willowood Clethodim 2EC ⁽⁴⁾ + lactofen + MSMA (4.0 lbs./gal.) or MSMA (6.6 lbs./gal.)	6 to 8 fl. oz. (0.094-0.125 lbs. a.i.)	8 to 16 fl. oz. (0.094-0.125 lbs. a.i.)	1%	Reduce broadcast rate in proportion to the band area actually treated.
	See lactofen label for rates to control broadleaf weeds and height limitations for cotton. Refer to the Willowood Clethodim 2EC label for weed height and species controlled.			
	See MSMA label for rates to control broadleaf weeds and height limitations for cotton. Refer to the Willowood Clethodim 2EC label for weed height and species controlled.			

(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 advised in these situations.

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

(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 Willowood Clethodim 2EC may be necessary.

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

PRODUCT ⁽¹⁾	APPLICATION RATES/ACRE ⁽²⁾	CROP OIL CONCENTRATE PER ACRE ⁽³⁾	COMMENTS ⁽⁵⁾
	ANNUAL GRASSES		
Willowood Clethodim 2EC + bromoxynil octanoate & bromoxynil heptanoate ⁽⁴⁾	8 to 16 fl. oz. (0.125-0.250 lbs. a.i.) + See product label for use rates to control broadleaf weeds and height limitations for cotton	1 qt.	See charts for grasses controlled.
Restrictions:			
- Do not apply the Willowood Clethodim 2EC plus bromoxynil octanoate & bromoxynil heptanoate tank mix within 75 days of harvest. - Do not exceed 2 applications of bromoxynil octanoate & bromoxynil heptanoate before cotton is 12 inches tall and one application after 12 inches tall.			

- (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.
(2) If grass regrowth occurs or an additional flush of new grass emerges, make a second application of Willowood Clethodim 2EC at the prescribed rate with the appropriate amount of crop oil concentrate in a non-bromoxynil octanoate & bromoxynil heptanoate tank mix.
(3) Always add a crop oil concentrate at 1 qt./A by ground in the finished spray solution.
(4) Use a minimum of 10 gals. of spray solution per acre.

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

PRODUCT	APPLICATION RATES/ACRE ⁽¹⁾		ADJUVANT		COMMENTS
	ANNUAL GRASSES	PERENNIAL GRASSES	Glyphosate formulation with built in adjuvant	Glyphosate formulation without built in adjuvant	
Willowood Clethodim 2EC + GLYPHOSATE	6 to 8 fl. oz. (0.094-0.125 lbs. a.i.) See glyphosate label for use rates to control broadleaf weeds and height limitations for cotton.	8 to 16 fl. oz. (0.125-0.250 lbs. a.i.)	Non-ionic surfactant @ 0.125 to 0.25% v/v plus ammonium sulfate @ 8.5 to 17 lbs. per 100 gals. of carrier	Crop oil concentrate @ 1 pt./A plus ammonium sulfate @ 8.5 to 17 lbs. per 100 gals. of carrier	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 Willowood Clethodim 2EC at the prescribed rate with the appropriate amount of crop oil concentrate.

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

Table 6. WILLOWOOD CLETHODIM 2EC TANK MIXES WITH BROADLEAF HERBICIDES FOR BEANS (DRY AND SUCCULENT SHELLED)
(Refer to the instruction tables above for specific grasses and growth stages.)

PRODUCT ⁽²⁾	APPLICATION RATES/ACRE ⁽¹⁾		CROP OIL CONCENTRATE ⁽³⁾ (V/V)	
	ANNUAL GRASSES	PERENNIAL GRASSES	GROUND	AIR
Willowood Clethodim 2EC + sodium bentazon	8 to 10 fl. oz. (0.125-0.156 lbs. a.i.) + Refer to product label for use rates.	10 to 16 fl. oz. (0.156-0.250 lbs. a.i.) + Refer to product label for use rates.	1%	1%

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

FLAX

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

PRODUCT	APPLICATION RATES/ACRE		CROP OIL CONCENTRATE	
	ANNUAL GRASSES ⁽¹⁾	PERENNIAL GRASSES	GROUND	AIR
Willowood Clethodim 2EC + MCPA & bromoxynil octanoate & bromoxynil heptanoate	4 to 5 fl. oz. (0.063-0.078 lbs. a.i.) + Refer to product label for use rates.	-	1 pt.	1 pt.
Willowood Clethodim 2EC + bromoxynil octanoate	4 to 5 fl. oz. (0.063-0.078 lbs. a.i.) + Refer to product label for use rates.	-	1 pt.	1 pt.
Willowood Clethodim 2EC + MCPA, 2-ethylhexyl ester	4 to 5 fl. oz. (0.063-0.078 lbs. a.i.) + Refer to product label for use rates.	-	1 pt.	1 pt.

Restrictions:

- Do not apply Willowood Clethodim 2EC tank mix during or after the bud stage or to ornamental flax or crop injury may occur.
- Do not apply tank mixes if temperatures are expected to exceed 85°F at (or 3 days following) application or crop injury may occur.

- (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.

SOYBEAN

Table 8. WILLOWOOD CLETHODIM 2EC TANK MIXES⁽³⁾ TO CONTROL ANNUAL GRASSES WHEN USED AS A BURNDOWN IN NO-TILL SOYBEAN

PRODUCT	PRODUCT RATE/ACRE ⁽¹⁾	GRASS HEIGHT (inches)	CROP OIL CONCENTRATE /ACRE ⁽²⁾	28%N OR 32%N QTS./A OR 2.5 TO 4.0 LBS. AMS
Willowood Clethodim 2EC + 2,4-D ester ⁽³⁾	3 fl. oz. (0.047 lbs. a.i.)	Foxtail 1 to 3 Fall Panicum 1 to 3	1 qt.	1 to 2 qts. or 2.5 to 4.0 lbs. AMS
	4 fl. oz. (0.063 lbs. a.i.)	Foxtail 1 to 4 Fall Panicum 1 to 4	1 qt.	1 to 2 qts. or 2.5 to 4.0 lbs. AMS
	6 to 8 fl. oz. (0.094-0.125 lbs. a.i.) + Refer to product label for use rates.	(See Grass Chart for grasses claimed.)	1 qt.	1 to 2 qts. or 2.5 to 4.0 lbs. AMS
Restriction: Do not use 2,4-D ester where drift sensitive crops may be grown.				

(1) If regrowth occurs or an additional flush of new grass emerges, make a second application of Willowood Clethodim 2EC according to the appropriate size and rate requirements.

(2) Always use a crop oil concentrate at the listed rate in the finished spray volume.

(3) The following products can be tank mixed with Willowood Clethodim 2EC plus 2,4-D ester: VALOR® Herbicide, AUTHORITY™ BROADLEAF, CANOPY XL®, DUAL® 8 E, DUAL II®, DUAL MAGNUM®, PROWL, SENCOR®, SENCOR plus the DUAL products and TURBO®.

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

PRODUCT ⁽²⁾	APPLICATION RATES/ACRE ⁽¹⁾		CROP OIL CONCENTRATE ⁽³⁾ (V/V)	
	ANNUAL GRASSES	PERENNIAL GRASSES	GROUND	AIR
Willowood Clethodim 2EC + lactofen	6 to 8 fl. oz. (0.094-0.125 lbs. a.i.) + Refer to product label for use rates.	8 to 16 fl. oz. (0.125-0.250 lbs. a.i.) + Refer to product label for use rates.	0.5 to 1%	1%
Willowood Clethodim 2EC + sodium bentazon	8 to 10 fl. oz. (0.125-0.156 lbs. a.i.) + Refer to product label for use rates.	10 to 16 fl. oz. (0.156-0.250 lbs. a.i.) + Refer to product label for use rates.	1%	1%
Willowood Clethodim 2EC + Glyphosate (For use on Roundup Ready soybean only)	6 to 8 fl. oz. (0.094-0.125 lbs. a.i.) + Refer to product label for use rates.	8 to 16 fl. oz. (0.125-0.250 lbs. a.i.) + Refer to product label for use rates.	0.5 to 1% ⁽⁴⁾	1% ⁽⁴⁾
Willowood Clethodim 2EC + sodium acifluorfen	6 to 8 fl. oz. (0.094-0.125 lbs. a.i.) + Refer to product label for use rates.	6 to 8 fl. oz. (0.094-0.125 lbs. a.i.) + Refer to product label for use rates.	0.5% to 1%	1%
Willowood Clethodim 2EC + sodium salt of fomesafen ⁽⁶⁾	6 to 8 fl. oz. (0.094-0.125 lbs. a.i.) + Refer to product label for use rates.	8 to 16 fl. oz. (0.125-0.250 lbs. a.i.) + Refer to product label for use rates.	1%	1%
Willowood Clethodim 2EC + chlorimuron	8 to 10 fl. oz. (0.125-0.156 lbs. a.i.) + Refer to product label for use rates.	10 to 16 fl. oz. (0.156-0.250 lbs. a.i.) + Refer to product label for use rates.	1%	1%
Willowood Clethodim 2EC ⁽⁴⁾ + imazethapyr	6 to 8 fl. oz. (0.094-0.125 lbs. a.i.) + Refer to product label for use rates.	8 to 16 fl. oz. (0.125-0.250 lbs. a.i.) + Refer to product label for use rates.	1%	1%
Willowood Clethodim 2EC ⁽⁵⁾ + lactofen + chlorimuron	8 to 10 fl. oz. (0.125-0.156 lbs. a.i.) + Refer to product labels for use rates.	-	0.5%	1%
Willowood Clethodim 2EC ⁽⁵⁾ + lactofen + sodium bentazon	8 to 10 fl. oz. (0.125-0.156 lbs. a.i.) + Refer to product labels for use rates.	-	0.5%	1%

PRODUCT ⁽²⁾	APPLICATION RATES/ACRE ⁽¹⁾		CROP OIL CONCENTRATE ⁽³⁾ (V/V)	
	ANNUAL GRASSES	PERENNIAL GRASSES	GROUND	AIR
Willowood Clethodim 2EC ⁽⁵⁾ + lactofen + imazethapyr	8 to 10 fl. oz. (0.125-0.156 lbs. a.i.) + Refer to product labels for use rates.	-	0.5%	1%
Willowood Clethodim 2EC ⁽⁵⁾ + sodium bentazon & sodium acifluorfen	8 to 10 fl. oz. (0.125-0.156 lbs. a.i.) + Refer to product label for use rates.	-	0.5%	1%
Willowood Clethodim 2EC ⁽⁵⁾ + flumiclorac + imazethapyr	8 to 10 fl. oz. (0.125-0.156 lbs. a.i.) + Refer to product labels for use rates.	-	1%	1%
Willowood Clethodim 2EC ⁽⁵⁾ + flumiclorac + Sodium bentazon	8 to 10 fl. oz. (0.125-0.156 lbs. a.i.) + Refer to product labels for use rates.	-	1%	1%
Willowood Clethodim 2EC ⁽⁵⁾ + flumiclorac + chlorimuron	8 to 10 fl. oz. (0.125-0.156 lbs. a.i.) + Refer to product labels for use rates.	-	1%	1%
Willowood Clethodim 2EC ⁽⁵⁾ + lactofen + flumiclorac	6 to 8 fl. oz. (0.094-0.125 lbs. a.i.) + Refer to product labels for use rates.	-	0.5%	1%
Willowood Clethodim 2EC ⁽⁵⁾ + cloransulam-methyl	6 to 8 fl. oz. (0.094-0.125 lbs. a.i.) + Refer to product label for use rates.	8 to 16 fl. oz. (0.125-0.250 lbs. a.i.) + Refer to product label for use rates.	1%	-
Willowood Clethodim 2EC ⁽⁵⁾ + lactofen + cloransulam-methyl	6 to 8 fl. oz. (0.094-0.125 lbs. a.i.) + Refer to product labels for use rates.	8 to 16 fl. oz. (0.125-0.250 lbs. a.i.) + Refer to product labels for use rates.	1%	-
Willowood Clethodim 2EC ⁽⁵⁾ + imazamox (1 AS)	6 to 8 fl. oz. (0.094-0.125 lbs. a.i.) + Refer to product label for use rates.	-	1%	-

PRODUCT ⁽²⁾	APPLICATION RATES/ACRE ⁽¹⁾		CROP OIL CONCENTRATE ⁽³⁾ (V/V)	
	ANNUAL GRASSES	PERENNIAL GRASSES	GROUND	AIR
Willowood Clethodim 2EC ⁽⁵⁾ + lactofen + imazamox (1 AS)	6 to 8 fl. oz. (0.094-0.125 lbs. a.i.) + Refer to product labels for use rates.	-	1%	-
Willowood Clethodim 2EC ⁽⁵⁾ + thifensulfuron & chlorimuron	6 to 8 fl. oz. ⁽⁷⁾ (0.094-0.125 lbs. a.i.) + Refer to product label for use rates.	-	1 qt.	-
Willowood Clethodim 2EC ⁽⁵⁾ + lactofen + thifensulfuron & chlorimuron	6 to 8 fl. oz. ⁽⁷⁾ (0.094-0.125 lbs. a.i.) + Refer to product label for use rates.	-	1 pt.	-
Willowood Clethodim 2EC ⁽⁵⁾ + flumiclorac	6 to 8 fl. oz. (0.094-0.125 lbs. a.i.) + Refer to product label for use rates.	-	1 qt.	-
Willowood Clethodim 2EC ⁽⁵⁾ + cloransulam-methyl & flumetsulam	8 to 10 fl. oz. (0.125-0.156 lbs. a.i.) + Refer to product label for use rates.	-	1%	-
Willowood Clethodim 2EC + cloransulam-methyl + sodium salt of fomesafen ⁽⁵⁾	6 to 8 fl. oz. (0.094-0.125 lbs. a.i.) + Refer to product labels for use rates.	8 to 16 fl. oz. (0.125-0.250 lbs. a.i.) + Refer to product labels for use rates.	1%	-

- (1) If grass regrowth occurs or an additional flush of new grass emerges, make a second application of Willowood Clethodim 2EC alone (without a tank mix herbicide), according to the appropriate size and rate specifications.
- (2) Broadleaf weed control may be reduced when grass populations are tall or dense enough to intercept the spray pattern and prevent them from receiving complete coverage. Tank mixing is not advised in these situations.
- (3) Always use a crop oil concentrate at the listed rate (but not less than 1 pt./A) in the finished spray volume.
- (4) The addition of 2.5 lb. of ammonium sulfate is required when Willowood Clethodim 2EC is tank mixed with glyphosate. If the glyphosate formulation has a stand alone built in adjuvant, add 0.125% v/v non-ionic surfactant in place of crop oil concentrate. If the glyphosate formulation does not have a built in adjuvant, add 0.5 to 1% crop oil concentrate for ground application and 1% v/v for aerial application.
- (5) The addition of 1 to 2 qts./A of liquid fertilizer (10-34-0, 28%N, or 32%N) is advised when Willowood Clethodim 2EC is tank mixed with imazethapyr, flumiclorac, sodium bentazon & sodium acifluorfen, cloransulam-methyl, thifensulfuron & chlorimuron, imazamox, cloransulam-methyl & flumetsulam, lactofen plus chlorimuron, lactofen plus sodium bentazon, lactofen plus imazethapyr, lactofen plus cloransulam-methyl, lactofen plus thifensulfuron & chlorimuron, and lactofen plus imazamox. An equivalent amount (2.5 to 4.0 lbs./A) of spray grade ammonium sulfate (AMS) may be added in place of liquid fertilizer. Fertilizer adjuvants are to be added in addition to the crop oil concentrate.
- (6) Refer to sodium salt of fomesafen label for geographic and rotational restrictions.
- (7) Annual grasses and sizes controlled with these tank mixes are those that are identified in the **DIRECTIONS FOR REDUCED RATE TO CONTROL SMALL ANNUAL GRASSES** table.

SOYBEAN (continued)

Table 10. REDUCED RATE WILLOWOOD CLETHODIM 2EC TANK MIXES WITH BROADLEAF HERBICIDES FOR SOYBEAN (Refer to table Directions for reduced rate to control small annual grasses in canola, dry shelled bean & pea (including soybean, edible podded legume vegetables, flax, mustard seed, bean & pea (succulent) and sugar beet) (Reduced rate specifications not for use in California).

PRODUCT	APPLICATION RATES/ACRE ⁽¹⁾		CROP OIL CONCENTRATE ^(3,4) (V/V)	
	ANNUAL GRASSES ⁽²⁾	PERENNIAL GRASSES	GROUND	AIR
Willowood Clethodim 2EC + cloransulam-methyl	4 to 8 fl. oz. (0.063-0.125 lbs. a.i.) + Refer to product label for use rates.	-	1%	1%
Willowood Clethodim 2EC + imazethapyr	4 to 6 fl. oz. (0.063-0.094 lbs. a.i.) + Refer to product label for use rates.	-	1%	1%

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

(2) 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.

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

(4) The addition of 1 to 2 qts./A of liquid fertilizer (10-34-0, 28%N, or 32%N) is required when Willowood Clethodim 2EC is tank mixed at reduced rates. An equivalent amount (2.5 to 4.0 lbs./A) of spray grade ammonium sulfate (AMS) may be added in place of liquid fertilizer. Fertilizer adjuvants are to be added in addition to the crop oil concentrate.

PEANUT (INCLUDING PERENNIAL)

Table 11. WILLOWOOD CLETHODIM 2EC TANK MIXES WITH BROADLEAF HERBICIDES FOR PEANUT (INCLUDING PERENNIAL)
(Refer to the instruction tables above for specific grasses and growth stages.)

PRODUCT ⁽²⁾	APPLICATION RATES/ACRE ⁽¹⁾		CROP OIL CONCENTRATE ⁽³⁾ (V/V)	
	ANNUAL GRASSES ⁽²⁾	PERENNIAL GRASSES	GROUND	AIR
Willowood Clethodim 2EC + sodium bentazon	8 to 10 fl. oz. (0.125-0.156 lbs. a.i.) + Refer to product label for use rates.	-	1%	1%
Willowood Clethodim 2EC + sodium acifluorfen	8 to 10 fl. oz. (0.125-0.156 lbs. a.i.) + Refer to product label for use rates.	-	1%	1%
Willowood Clethodim 2EC + sodium bentazon & sodium acifluorfen	8 to 10 fl. oz. (0.125-0.156 lbs. a.i.) + Refer to product label for use rates.	-	1%	1%

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

DIRECTIONS FOR GRASS SUPPRESSION FOR HARVEST EFFICIENCY IN PEANUT (INCLUDING PERENNIAL) WITH WILLOWOOD CLETHODIM 2EC			
GRASS SPECIES	WEED STAGE	RATE FL. OZ./ ACRE	HIGH RATE
Annual and perennial grasses that exceed height claimed for control on height charts "DIRECTIONS FOR ANNUAL GRASSES" & "DIRECTIONS FOR PERENNIAL GRASSES"	Up to and including grasses in the seed head stage.	16 (0.250 lbs. a.i.)	32 (0.500 lbs. a.i.)
Restriction: Do not apply as part of a tank mix when applying Willowood Clethodim 2EC for grass suppression. Add a crop oil concentrate at 1 qt./A by ground to the finished spray volume.			
Restrictions - Do not apply more than 32 fl. oz. (0.500 lb ai) per acre per application. - Do not apply more than 64 fl. oz. (1.000 lb ai) per acre per year. - Do not apply more than 4 applications at the lowest rate, 16 fl. oz., or 2 applications at the highest rate, 32 fl. oz., per year.			

SUGAR BEET

Table 12. WILLOWOOD CLETHODIM 2EC TANK MIXED WITH CLOPYRALID, MONOETHANOLAMINE SALT APPLIED TO SUGAR BEET
(Refer to the tables above for specific grasses and growth stages)

PRODUCT ⁽²⁾	APPLICATION RATES/ACRE ⁽¹⁾		CROP OIL CONCENTRATE ⁽³⁾ (V/V)	
	ANNUAL GRASSES	PERENNIAL GRASSES	GROUND	AIR
Willowood Clethodim 2EC + clopypalid, monoethanolamine salt	6 to 8 fl. oz. (0.094-0.125 lbs. a.i.)	8 to 16 fl. oz. (0.125-0.250 lbs. a.i.)	1%	1%
Refer to product label for use rates.				

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

Table 13. WILLOWOOD CLETHODIM 2EC TANK MIXED WITH DESMEDIPHAM or PHENMEDIPHAM & DESMEDIPHAM APPLIED TO SUGAR BEET

PRODUCT ⁽¹⁾	WEEDS CONTROLLED		WEED HEIGHT (inches)	APPLICATION RATE/ACRE ⁽²⁾
	COMMON NAME	SCIENTIFIC NAME		
Willowood Clethodim 2EC ⁽³⁾ + phenmedipham & desmedipham or desmedipham	Barnyardgrass Foxtail Foxtail Millet Wild Oat Wild Proso Millet	<i>Echinochloa crus-galli</i> <i>Setaria</i> spp. <i>Setaria italic</i> <i>Avena fatua</i> <i>Panicum miliaceum</i>	1 to 3 1 to 3 1 to 3 1 to 3 1 to 3	8 fl. oz. (0.125 lbs. a.i.)
See phenmedipham & desmedipham label for rates to control broadleaf weeds. No additives are advised in the tank mix.				
See desmedipham label for rates to control broadleaf weeds. No additives are advised in the tank mix.				
Restriction: Do not use crop oil concentrate. No additives are advised in the tank mix. If grass regrowth occurs or an additional flush of new grass emerges, make a second application of Willowood Clethodim 2EC alone (without a tank mix herbicide), according to the appropriate size and rate specifications.				

- (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 advised in these situations.
- (2) If grass regrowth occurs or an additional flush of new grass emerges, make a second application of Willowood Clethodim 2EC at full label rate with appropriate rate of crop oil concentrate.

Table 14. WILLOWOOD CLETHODIM 2EC PLUS DESMEDIPHAM OR PHENMEDIPHAM & DESMEDIPHAM TANK MIX FOR THREE SEQUENTIAL APPLICATIONS FOR ANNUAL GRASS CONTROL (MICRO-RATE APPLICATION)

PRODUCT	APPLICATION RATES/ACRE ⁽¹⁾		METHYLATED SEED OIL ⁽²⁾ (V/V)	
	ANNUAL GRASSES	GRASSES CONTROLLED (inches)	GROUND	AIR
Willowood Clethodim 2EC + desmedipham or phenmedipham & desmedipham	2 to 3 fl. oz. (0.031-0.047 lbs. a.i.) + Refer to product labels for use rates. ⁽³⁾	Green Foxtail (1-2) Yellow Foxtail (1-2) Barnyardgrass (1-2) Wild Oat (1-2) Volunteer Cereals (1-2)	1.5%	1.5%

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

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

Apply Willowood Clethodim 2EC in broadcast applications only at a rate of 2 to 3 fl. oz./A (0.031-0.047 lbs ai) in tank mixture with either desmedipham or phenmedipham & desmedipham. Refer to the desmedipham or phenmedipham & desmedipham product labels for use rates. If weed control is not adequate due to climatic conditions, spray coverage or other factors, return to conventional application rates of Willowood Clethodim 2EC (6 to 8 fl. oz./A; 0.094-0.125 lbs ai) and add rates of desmedipham or phenmedipham & desmedipham as directed on their label. When using conventional rates of desmedipham or phenmedipham & desmedipham in tank mixtures with Willowood Clethodim 2EC, a spray adjuvant is not advised.

Use Precautions for Micro-Rate Applications: (See Willowood Clethodim 2EC, desmedipham and phenmedipham & desmedipham master label for further use precautions.)

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

RESTRICTION: DO NOT USE METHYLATED SEED OIL.

GROUND APPLICATION

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

AERIAL APPLICATION

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

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

PRODUCT ⁽²⁾	APPLICATION RATES/ACRE ⁽¹⁾		CROP OIL CONCENTRATE ⁽³⁾ (V/V)
	ANNUAL GRASSES	PERENNIAL GRASSES	
Willowood Clethodim 2EC + tetraconazole	6 to 8 fl. oz. (0.094-0.125 lbs. a.i.) + Refer to product label for use rates.	8 to 16 fl. oz. (0.125-0.250 lbs. a.i.) + Refer to product label for use rates.	1%

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

SPECIMEN

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

PRODUCT ⁽²⁾	APPLICATION RATES/ACRE ⁽¹⁾		CROP OIL CONCENTRATE (V/V) ⁽³⁾	CROP					
	ANNUAL GRASSES	PERENNIAL GRASSES		Alfalfa ⁽⁴⁾	Cotton	Mint ^(4,5)	Peanut	Soybean	Sunflower
Willowood Clethodim 2EC + acephate	6 to 8 fl. oz. (0.094-0.125 lbs. a.i.) + Refer to product labels for use rates.	6 to 8 fl. oz. (0.094-0.125 lbs. a.i.) + Refer to product labels for use rates.	1%		X	X	X		
Willowood Clethodim 2EC + acephate ⁽⁶⁾	6 to 8 fl. oz. (0.094-0.125 lbs. a.i.) + Refer to product label for use rates.	8 to 16 fl. oz. (0.125-0.250 lbs. a.i.) + Refer to product label for use rates.	1%		X	X	X	X	
Willowood Clethodim 2EC + fenpropathrin	6 to 8 fl. oz. (0.094-0.125 lbs. a.i.) + Refer to product label for use rates.	8 to 16 fl. oz. (0.125-0.250 lbs. a.i.) + Refer to product label for use rates.	1%		X		X		
Willowood Clethodim 2EC + esfenvalerate	6 to 8 fl. oz. (0.094-0.125 lbs. a.i.) + Refer to product label for use rates.	8 to 16 fl. oz. (0.125-0.250 lbs. a.i.) + Refer to product label for use rates.	1%						X
Willowood Clethodim 2EC + lambda-cyhalothrin	6 to 8 fl. oz. (0.094-0.125 lbs. a.i.) + Refer to product label for use rates.	8 to 16 fl. oz. (0.125-0.250 lbs. a.i.) + Refer to product label for use rates.	1%						X
Willowood Clethodim 2EC + lambda-cyhalothrin	10 to 16 fl. oz. ⁽⁷⁾ (0.156-0.250 lbs. a.i.) + Refer to product label for use rates.	10 to 16 fl. oz. (0.156-0.250 lbs. a.i.) + Refer to product label for use rates.	1%	X					
Willowood Clethodim 2EC + cyfluthrin	10 to 16 fl. oz. ⁽⁷⁾ (0.156-0.250 lbs. a.i.) + Refer to product label for use rates.	10 to 16 fl. oz. (0.156-0.250 lbs. a.i.) + Refer to product label for use rates.	1%	X					
Willowood Clethodim 2EC + dimethoate	10 to 16 fl. oz. ⁽⁷⁾ (0.156-0.250 lbs. a.i.) + Refer to product label for use rates.	10 to 16 fl. oz. ⁽⁷⁾ (0.156-0.250 lbs. a.i.) + Refer to product label for use rates.	1%	X					

PRODUCT ⁽²⁾	APPLICATION RATES/ACRE ⁽¹⁾		CROP OIL CONCENTRATE (V/V) ⁽³⁾	CROP					
	ANNUAL GRASSES	PERENNIAL GRASSES		Alfalfa ⁽⁴⁾	Cotton	Mint ^(4,5)	Peanut	Soybean	Sunflower
Willowood Clethodim 2EC + chlorpyrifos	10 to 16 fl. oz. ⁽⁷⁾ (0.156-0.250 lbs. a.i.) + Refer to product label for use rates.	10 to 16 fl. oz. (0.156-0.250 lbs. a.i.) + Refer to product label for use rates.	1 pt. ⁽⁸⁾	X					
Willowood Clethodim 2EC + permethrin	10 to 16 fl. oz. ⁽⁷⁾ (0.156-0.250 lbs. a.i.) + Refer to product label for use rates.	10 to 16 fl. oz. (0.156-0.250 lbs. a.i.) + Refer to product label for use rates.	1%	X					

Restrictions:

⁽⁵⁾ The Willowood Clethodim 2EC rate is 6 to 8 fl. oz./A (0.094-0.125 lbs ai) for annual grass control in baby mint, minimum of 8 fl. oz./A for annual grass control in established mint and 8 to 16 fl. oz./A (0.125-0.250 lbs ai) for perennial grass control. Crop oil concentrate is added at the rate of 1.0 to 2.0 pts./A.

⁽⁶⁾ Insecticide tank mix use with acephate 90% in soybean is permitted only in a state having an approved Section 24(c) registration for acephate 90% use in soybean.

⁽⁷⁾ The Willowood Clethodim 2EC rate is 6 to 8 fl. oz./A (0.094-0.125 lbs ai) for annual grass control in seedling alfalfa.

⁽⁸⁾ For the Willowood Clethodim 2EC plus chlorpyrifos tank mix, reduce the adjuvant rate down to 1.0 pt./A when tank mixed with chlorpyrifos.

- (1) If grass regrowth occurs, or an additional flush of new grass emerges, make a second application of Willowood Clethodim 2EC alone (without a tank mix insecticide), according to the appropriate size and rate requirements.
- (2) Refer to Willowood Clethodim 2EC and insecticide labels for rates and weeds and insects controlled.
- (3) Always use a crop oil concentrate at the listed rate (but not less than 1 pt./A) in the finished spray volume.
- (4) Certain insecticides may cause temporary phytotoxic symptoms on alfalfa 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.

Table 17. ROUNDUP READY VOLUNTEER CORN CONTROL IN ROUNDUP READY SOYBEAN WITH WILLOWOOD CLETHODIM 2EC TANK MIX

Roundup Ready Volunteer Corn Height (Inches)	Willowood Clethodim 2EC Rate fl. oz./A	Glyphosate ⁽¹⁾ rate for formulations with built in adjuvant	Adjuvant
<12	4 (0.063 lbs. a.i.)	Refer to product label for use rates.	Non-ionic surfactant @ 0.125 to 0.25% v/v plus ammonium sulfate @ 8.5 to 17 lbs. per 100 gals. of carrier
12 to 18	5 (0.078 lbs. a.i.)		
18 to 24	6 (0.094 lbs. a.i.)		

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

(1) Glyphosate formulation must be labeled for use on Roundup Ready soybean.

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

- Apply only to actively growing grass and broadleaf weeds at advised height or growth stage listed on each label.
- Apply under favorable soil moisture and humidity which exist a few days after rainfall or within seven days after irrigation.
- Tank mix applications may sometimes result in reduced grass control. If regrowth occurs, or an additional flush of new grass emerges, make a second application of Willowood Clethodim 2EC, as specified in the respective size and rate tables.
- This tank mix may be applied postemergence to ROUNDUP READY soybean up through the full flowering stage.
- Avoid contact with foliage, green stems, or fruit of crops, or any desirable plants and trees, other than soybean with the ROUNDUP READY gene as severe injury or destruction will result.

Restrictions

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

FALLOW LAND

DIRECTIONS FOR USE

Willowood Clethodim 2EC may be used to control annual and perennial grasses in land that has been left fallow the previous year and other non-producing agricultural areas. Apply Willowood Clethodim 2EC at 6 to 8 fl. oz./A (0.125 lbs ai) for annual grasses and 8 to 16 fl. oz./A (0.125-0.250 lbs ai) for perennial grasses. When both grass and broadleaf weeds are the target pest, Willowood Clethodim 2EC may be tank mixed with 2,4-D ester or sodium salt of dicamba for broad spectrum control. When both annual and perennial grasses occur in the same field, use a minimum of 8 fl. oz./A (0.125 lbs ai) Willowood Clethodim 2EC rate.

PRODUCT INFORMATION:

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

Restrictions:

- Do not apply more than 16 fl. oz. (0.250 lb ai) of Willowood Clethodim 2EC per acre per application.
- Do not apply more than 32 fl. oz. (0.500 lb ai) of Willowood Clethodim 2EC per acre per year.
- Do not apply more than 4 applications at the lowest rate, 6 fl. oz., or 2 applications at the highest rate, 16 fl. oz., per year.
- Do not plant any crop for 30 days after application unless clethodim is registered for use in that crop.
- Do not apply to grasses that have tillered, formed seedheads or exceeded specified growth stage.
- Do not use flood jet nozzles.
- Do not apply to drought stressed grasses.
- Do not mow area for 2 weeks prior to or after the Willowood Clethodim 2EC application.

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

PRODUCT	APPLICATION RATES/ACRE ⁽¹⁾		CROP OIL CONCENTRATE ⁽²⁾ (V/V)	
	ANNUAL GRASSES	PERENNIAL GRASSES	GROUND	AIR
Willowood Clethodim 2EC + 2,4-D ester or sodium salt of dicamba	6 to 8 fl. oz. (0.094-0.125 lbs. a.i.) + Refer to product labels for use rates.	8 to 16 fl. oz. (0.125-0.250 lbs. a.i.)	1%	1%

(1) Refer to Willowood Clethodim 2EC label for weed height and species control. Review sodium salt of dicamba and 2,4-D labels for crop restrictions, use rates and weeds controlled.

(2) Always use a crop oil concentrate or methylated seed oil containing at least 15% emulsifier at the listed rate (but not less than 1 pt./A) in the finished spray volume.

DIRECTIONS FOR GRASS SUPPRESSION IN NON-CROP AREAS WITH WILLOWOOD CLETHODIM 2EC			
GRASS SPECIES	WEED STAGE	RATE FL. OZ./ACRE	HIGH RATE
Annual and perennial grasses that exceed height claimed for control on height charts above.	Up to and including grasses in the seed head stage.	12 (0.188 lbs. a.i.)	16 (0.250 lbs. a.i.)
Restriction: • Do not apply as part of a tank mix when applying Willowood Clethodim 2EC for grass suppression. • Add a crop oil concentrate at 1 qt./A by ground to the finished spray volume. • Do not apply more than 16 fl. oz. (0.250 lb ai) per acre per application. • Do not apply more than 64 fl. oz. (1.000 lb ai) per acre per year. • Do not apply more than 4 applications at 12-16 fl. oz. per year.			

Table 19. WILLOWOOD CLETHODIM 2EC 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	
Willowood Clethodim 2EC	10 to 12 fl. oz./A (0.156-0.188 lbs. a.i.)	Tall Fescue	<i>Festuca arundinacea</i>	4 to 6 inches tall (40 to 60% green-up)
Adjuvant: Willowood Clethodim 2EC must be applied with crop oil concentrate at 1 qt./A, plus a spray grade ammonium sulfate at 2.5 to 4 lbs./A.				
Mixing Order: Thoroughly mix spray grade ammonium sulfate in water, add Willowood Clethodim 2EC, then add crop oil concentrate.				

APPLICATION PRECAUTIONS AND RESTRICTIONS
Precautions: • Burn or mow fields a minimum of 3 weeks prior to application to remove excess crop residue. • Apply in the spring, at 40 to 60% tall fescue green-up, prior to emergence of warm-season grasses. • Apply in a minimum of 15 to 20 gals. of water per acre at a spray pressure of 40 to 60 PSI at the nozzle. Apply using flat fan or hollow cone nozzles. • Apply only to fields that have warm-season grasses established for 2 years. • Applications of Willowood Clethodim 2EC to emerged warm-season grasses may cause injury. NOTE: Willowood Clethodim 2EC applications are most effective if applied when average nighttime temperatures are consistently greater than or equal to 47°F. Restrictions: • Do not mow area for 2 weeks after the Willowood Clethodim 2EC application. • Do not use flood jet nozzles. • Do not apply to warm-season grasses grown for seed. • Do not graze treated fields or feed treated forage and or hay to livestock. • Do not plant any crop for 30 days after application, unless clethodim is registered for use in that crop.

Table 20. WILLOWOOD CLETHODIM 2EC FOR THE SUPPRESSION OF TALL FESCUE SEED-HEADS IN NON-PRODUCING AGRICULTURAL AREAS

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

APPLICATION PRECAUTIONS AND RESTRICTIONS
Precautions: • Apply at 50 to 90% tall fescue green-up. • Use the higher Willowood Clethodim 2EC rate if less tall fescue green matter is present. • Apply in a minimum of 15 to 20 gals. of water per acre at a spray pressure of 40 to 60 psi at the nozzle. Apply using flat fan or hollow cone nozzles. Do not use flood nozzles. • 2,4-D ester may be added to this tank mix for broadleaf control (see 2,4-D ester label for weeds controlled). Restrictions: • Do not mow area for two weeks after the Willowood Clethodim 2EC application. • Do not graze treated fields or feed treated forage and/or hay to livestock. • Do not plant any crop for 30 days after application, unless clethodim is registered for use in that crop.

DIRECTIONS FOR USE IN ORNAMENTALS

For ornamental plant uses, Willowood Clethodim 2EC 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

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

The following plants are not sensitive to Willowood Clethodim 2EC applications:

ORNAMENTAL TREES

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

GROUND COVERS

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

COMMON NAME	SCIENTIFIC NAME
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>
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.

SPECIMEN

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 16 fl. oz. (0.250 lb ai) per acre per application.
- Do not apply more than 64 fl. oz. (1.000 lb ai) per acre per year.
- Do not apply more than 4 applications at 8-16 fl. oz. per year.

GRASS SPECIES	SCIENTIFIC NAME	WEED* HEIGHT INCHES	RATE FL. OZ./ACRE ⁽¹⁾	HIGH RATE ⁽²⁾
Barnyardgrass	<i>Echinochloa crus-galli</i>	2 to 8	8	16
Broadleaf Signalgrass	<i>Brachiaria platyphylla</i>	2 to 6	8	16
Brome				
California	<i>Bromus carinatus</i>	2 to 6	8	16
Cheat	<i>Bromus secalinus</i>	2 to 6	8	16
Downy	<i>Bromus tectorum</i>	2 to 6	8	16
Ripgut	<i>Bromus diandrus</i>	2 to 6	8	16
Canarygrass	<i>Phalaris canariensis</i>	1 to 4	8	16
Crabgrass				
Hairy	<i>Digitaria adscendens</i>	2 to 6**	8	16
Large	<i>Digitaria sanguinalis</i>	2 to 6**	8	16
Smooth	<i>Digitaria ischaemum</i>	2 to 6**	8	16
Southern	<i>Digitaria ciliaris</i>	2 to 6**	8	16
Crowfootgrass	<i>Dactyloctenium aegyptium</i>	2 to 6**	8	16
Fall Panicum	<i>Panicum dichotomiflorum</i>	2 to 8	8	16
Field Sandbur	<i>Cenchrus incertus</i>	2 to 6	8	16
Foxtail				
Giant	<i>Setaria faberi</i>	2 to 12	8	16
Green	<i>Setaria viridis</i>	2 to 8	8	16
Yellow	<i>Setaria glauca</i>	2 to 8	8	16
Goosegrass	<i>Eleusine indica</i>	2 to 6**	8	16
Itchgrass	<i>Rottboellia cochin</i>	2 to 6	8	16
Junglerice	<i>Echinochloa colona</i>	2 to 6	8	16
Lovegrass (Stinkgrass)	<i>Eragrostis cilianensis</i>	2 to 6	8	16
Rabbitsfootgrass	<i>Polypogon monspeliensis</i>	1 to 4	8	16
Red Rice	<i>Oryza sativa</i>	1 to 3	8	16

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

* Generally occurs between 3-leaf stage and tillering.

** Length of lateral growth.

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

⁽²⁾ 16 fl. oz./A (0.250 lb ai/A) = approximately 0.4 fl. oz./1000 sq. ft.

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

DIRECTIONS FOR ANNUAL BLUEGRASS CONTROL WITH WILLOWOOD CLETHODIM 2EC IN ORNAMENTALS			
GRASS SPECIES	WEED STAGE	RATE FL. OZ./ACRE	HIGH RATE
Annual Bluegrass (<i>Poa annua</i>)	to 4-leaf	6 (0.094 lbs ai)	16 (0.250 lbs ai)
Apply under favorable soil moisture and humidity that exists within a few days after rainfall or within 7 days after irrigation. Grass needs to be actively growing at time of application(s). Apply at weed stage indicated on the label, as reduced control can be expected with more mature annual bluegrass. Use the high rate under heavy grass pressure and/or when annual bluegrass is more mature. Add a non-ionic surfactant containing at least 80% active ingredient at the rate of 1 pt. per 50 gals. (0.25% v/v).			
Restrictions - Do not apply more than 16 fl. oz. (0.250 lb ai) per acre per application. - Do not apply more than 32 fl. oz. (0.500 lb ai) per acre per year. - Do not apply more than 4 applications at the lowest rate, 6 fl. oz., or 2 applications at the highest rate, 16 fl. oz., per year.			

SPECIMEN

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 16 fl. oz. (0.250 lb ai) per acre per application.
- Do not apply more than 64 fl. oz. (1.000 lb ai) per acre per year.
- Do not apply more than 4 applications at 8-16 fl. oz. per year.

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

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

⁽²⁾ 16 fl. oz./A (0.250 lb ai/A) = approximately 0.4 fl. oz./1000 sq. ft.

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

STORAGE AND DISPOSAL

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

Open dumping is prohibited.

PESTICIDE STORAGE

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

PESTICIDE DISPOSAL

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

CONTAINER HANDLING

Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying.

(Nonrefillable plastic container $\leq$ 5 gallons): Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

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

SPECIMEN

CONDITION 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 Willowood, 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 Willowood, LLC and Seller harmless for any claims relating to such factors.

Willowood, 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 Willowood, LLC, and Buyer and User assume the risk of any such use. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, WILLOWOOD, LLC MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS STATED ABOVE.

To the extent consistent with applicable law, neither Willowood, LLC nor Seller shall be liable for any incidental, consequential or special damages resulting from the use or handling of this product. **TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF WILLOWOOD, LLC AND SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT OR, AT THE ELECTION OF WILLOWOOD, LLC OR SELLER, THE REPLACEMENT OF THE PRODUCT.**

Willowood, LLC and Seller offer this product, and Buyer and User accept it, subject to the foregoing Conditions of Sale and Limitation of Warranty and Liability, which may not be modified except by written agreement signed by a duly authorized representative of Willowood, LLC.

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