

# UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION

November 5, 2019

MORRIS GASKINS DIRECTOR PRODUCT REGISTRATIONS ALBAUGH LLC P.O. BOX 2127 VALDOSTA, GA 31604

Subject: Label Amendment – Amendment to reduce spray interval for orchard crops and

add minor uses for blackberry, grass for seed and roses.

Product Name: Oxyfluorfen 2EC EPA Registration Number: 42750-136

Application Date: 09/13/2019 Decision Number: 555765

Dear Mr. Gaskins:

The amended label referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act, as amended, is acceptable. This approval does not affect any conditions that were previously imposed on this registration. You continue to be subject to existing conditions on your registration and any deadlines connected with them.

A stamped copy of your labeling is enclosed for your records. This labeling supersedes all previously accepted labeling. You must submit one copy of the final printed labeling before you release the product for shipment with the new labeling. In accordance with 40 CFR 152.130(c), you may distribute or sell this product under the previously approved labeling for 18 months from the date of this letter. After 18 months, you may only distribute or sell this product if it bears this new revised labeling or subsequently approved labeling. "To distribute or sell" is defined under FIFRA section 2(gg) and its implementing regulation at 40 CFR 152.3.

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

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Your release for shipment of the product constitutes acceptance of these conditions. If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6. If you have any questions, please contact Francisco Llarena-Arias by phone at 703-347-0459, or via email at llarena-arias.francisco@epa.gov.

Sincerely,

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

Office of Pesticide Programs

EDITOR'S NOTE: 11/5/19-B "clean" label amendment to add minor crops (blackberry, grass for seed, roses) and revise Tree Nut spray intervals in response to Agency comment label of 11/5/19

OXYFLUORFEN GROUP 14 HERBICIDE

## **OXYFLUORFEN 2EC**

## **ACTIVE INGREDIENT**

Oxyfluorfen: 2-chloro-1-(3-ethoxy-4-nitrophenoxy)
4-(trifluoromethyl) 22.3%

OTHER INGREDIENTS 77.7%

TOTAL 100.0%

Contains 2 pounds active ingredient per gallon. Contains petroleum distillates

## 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:** Call a poison Control Center or doctor immediately for treatment advice. Do not give **any** liquid to the person. Do not induce vomiting unless told to do so by a Poison Control Center or doctor. Do not give anything by mouth to an unconscious person.

**NOTE TO PHYSICIAN:** Probable mucosal damage may contraindicate the use of gastric lavage. This product may pose an aspiration pneumonia hazard. Contains petroleum distillates.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. Contact CHEMTREC toll free at 1-800-424-9300 day or night, for emergency information.

See inside booklet for additional PRECAUTIONARY STATEMENTS and complete DIRECTIONS FOR USE.

EPA Reg. No. 42750-136

EPA Est. No. xxxxxx-xx-xxx

**NET CONTENTS:** 

Manufactured For: ALBAUGH, LLC ANKENY, IA 50021

## ACCEPTED

11/05/2019

Under the Federal Insecticide, Fungicide and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No.

42750-136

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Terms and Conditions of Use
Warranty Disclaimer
Inherent Risks of Use
Limitation of Remedies

## PRECAUTIONARY STATEMENTS

#### HAZARDS TO HUMANS AND DOMESTIC ANIMALS

#### WARNING

Causes Substantial But Temporary Eye Injury. Causes Skin Irritation. Harmful If Swallowed Or Absorbed Through The Skin. Prolonged Or Frequently Repeated Skin Contact May Cause Allergic Reactions In Some Individuals.

**DO NOT** get in eyes, on skin or on clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove and wash contaminated clothing and wash clothing before reuse.

## PERSONAL PROTECTIVE EQUIPMENT (PPE)

Mixers, loaders and applicators using engineering controls (see engineering controls requirements below), must wear:

- Long-sleeved shirt and long pants
- Shoes plus socks
- Chemical-resistant gloves when mixing and loading
- Chemical-resistant apron when mixing and loading

All other mixers, loaders, applicators and other handlers must wear:

- · Coveralls over long-sleeved shirt and long pants
- · Chemical-resistant footwear plus socks
- Chemical-resistant gloves
- Chemical-resistant headgear when exposed overhead
- Chemical-resistant apron when exposed to the concentrate
- Goggles or face shield

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.

Pilots must use an enclosed cockpit in a manner that meets the requirement listed in the Worker Protection Stand (WPS) for agricultural pesticides [40 CFR 170.240(d)(6)].

When handlers use closed systems, enclosed cabs or aircraft in a manner that meets the requirements listed in the Worker Protection Standards (WPS) for agricultural pesticides [40 CFR 170.240(d) (4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

## **USER SAFETY RECOMMENDATIONS**

Users should:

- 1. Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- 2. 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.

#### **ENGINEERING CONTROLS**

Mixer and loaders supporting aerial applications to fallow land or ground applications to corn, cotton, or soybeans must use a closed system that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides[40 CFR 170.240(d)(4)], and must:

- Wear the personal protective equipment required above for mixers/loaders using engineering controls.
- Wear protective eyewear if the system operates under pressure, and
- Be provided and have immediate available for use in an emergency, including a broken package, spill, or equipment breakdown: coveralls, and chemical-resistant footwear.

Handlers performing applications to corn must use an enclosed cab that meets the definition in the Worker Protection Standard for Agricultural Pesticides [40 CFR 170.240(d)(5)] for dermal protection. In addition, such applicators must:

- Wear the personal protective equipment required above for applicators using engineering controls,
- Be provided and must have immediately available for use in an emergency when they must exit the cab in the treated area: coveralls, chemical-resistant gloves, chemical-resistant footwear, and chemical-resistant headgear, if overhead exposure,
- Take off any PPE that was worn in the treated area before reentering the cab, and
- Store all such PPE in a chemical-resistant container, including a plastic bag, to prevent contamination
  of the inside of the cab.

#### PHYSICAL AND CHEMICAL HAZARDS

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

## **ENVIRONMENTAL HAZARDS**

This product is toxic to aquatic invertebrates and wildlife. Do not apply directly to water or areas where surface water is present or to intertidal areas below the mean high water mark. Runoff from treated areas may be hazardous to aquatic organisms in neighboring areas. See Directions for Use for additional restrictions. Do not contaminate water when disposing of equipment wash water.

## **DIRECTIONS FOR USE**

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Read all Directions for Use carefully before applying.

**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, except for the following:

- Onions, garlic and horseradish: The REI is 48 hours.
- Conifer seedlings: The REI is three (3) days.
- Conifer trees: The REI is six (6) days.

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 made of any waterproof material,
- Shoes plus socks
- Protective eyewear

## NON-AGRICULTURAL USE REQUIREMENTS:

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

#### STORAGE AND DISPOSAL

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

PESTICIDE STORAGE: Store above 40 F.

**PESTICIDE DISPOSAL:** Pesticide Wastes are toxic. Improper disposal of excess pesticide spray mixture or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

#### **CONTAINER HANDLING:**

Non-refillable containers (1, 2.5, 30 & 55 gallon): Do not reuse or refill this container. Offer for recycling, if available. Triple rinse or pressure rinse container (or equivalent) promptly after emptying.

(non-refillable <5 gallons): Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times.

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

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

Refillable container (>55 gallons): Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller.

To clean the container before final disposal, empty the remaining contents from the container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or

rinsate collection system. Repeat this rinsing process two more times.

Steps to be Taken In Case Material is Released or Spilled: Ventilate area. Avoid breathing vapors. Use MSHA/NIOSH self-contained breathing apparatus or airline respirator for large spills in confined areas. Dike the soil with inert material (sand, earth, etc.) and transfer the liquid or solid diking material to separate containers for recovery or disposal. Remove contaminated clothing promptly and wash exposed skin areas with soap and water. Wash clothing before reuse. Keep spill out of all sewers and bodies of water.

#### APPLICATION INSTRUCTIONS AND RESTRICTIONS

OXYFLUORFEN 2EC herbicide may be applied for preemergence and postemergence weed control in labeled crops as indicated in this label. All use directions as provided in the Product Use Information section and crop-specific sections of this label, must be followed.

Read and observe all label directions before using. When tank mixing, read and carefully follow all applicable use directions, precautions, and limitations on the respective product labels. In interpreting all labels for the tank mixture, the most restrictive situations must apply. 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.

# RESTRICTIONS - THE FOLLOWING USE RESTRICTIONS APPLY TO ALL REGISTERED USES OF THIS PRODUCT: (NOTE: see directions for use for individual crops for crop-specific use Restrictions.)

- The annual maximum application rate for all food/feed crops is 1.5 lbs ai/Acre.
- **DO NOT** contaminate irrigation water or water used for domestic purposes.
- **DO NOT** use any plants treated with OXYFLUORFEN 2EC for feed or forage.
- DO NOT feed or allow animals to graze on any areas treated with OXYFLUORFEN 2EC.
- OXYFLUORFEN 2EC must be applied only by ground application equipment except as otherwise allowed or directed in specific use directions.
- DO NOT apply when weather conditions favor drift. Avoid drift to all non-target areas.
   OXYFLUORFEN 2EC is phytotoxic to plant foliage.
- DO NOT treat ditch banks or waterways with OXYFLUORFEN 2EC.

## MANDATORY SPRAY DRIFT DIRECTIONS

## **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.
- For applications prior to the emergence of crops and target weeds, applicators are required to use a coarse or coarser droplet size (ASABE S572.1)
- The boom length must be 65% or less of the wingspan for fixed wing aircraft and 75% or less of the rotor diameter for helicopters.
- 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.
- Applicators must use ½ swath displacement upwind at the downwind edge of the field.
- When wind speeds are 5 10 mph maintain a minimum downwind buffer zone of at least ½ mile from all crops and desirable vegetation, except the following:
  - o 150 feet from dormant tree fruit/nut/vine crops and overwintering sugar beets.
  - 650 feet from garlic, jojoba, legumes, onions, pastures, small grains, seedling sugar beets, and non-targeted vegetable fallow beds.
- For upwind and side borders, maintain buffer zone of 150 feet from any non-targeted vegetable fallow bed, crop, or desirable vegetation.

## **MANDATORY SPRAY DRIFT DIRECTIONS**

#### **GROUND BOOM APPLICATIONS:**

- Apply with the nozzle height recommended by the manufacturer, but no more than 3 feet above the ground or crop canopy.
- For all applications, applicators are required to use a coarse 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.

## **BOOM-LESS GROUND APPLICATIONS:**

- Applicators are required to use a coarse or coarser droplet size (ASABE S572.1) for all applications.
- 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**

 Use the lowest boom height that is compatible with the spray nozzles that will provide uniform coverage. For ground equipment, the boom should remain level with the crop and have minimal bounce.

#### **RELEASE HEIGHT: Aircraft**

Higher release heights increase the potential for spray drift.

## 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.

IMPORTANT: TREATED SOIL MUST BE THOROUGHLY INCORPORATED TO A DEPTH OF 4 INCHES AFTER HARVEST (OR ABANDONING) OF THE TREATED CROP BUT PRIOR TO PLANTING OF THE ROTATIONAL CROP. FAILURE TO ACHIEVE THIS THOROUGH AND COMPLETE INCORPORATION OR TO FOLLOW THE REQUIRED MINIMUM PLANT-BACK INTERVAL MAY RESULT IN CROP INJURY, STAND REDUCTION AND/OR VIGOR REDUCTION OF THE PLANT-BACK CROP. See specific fallow bed labeling regarding crop planting information for applicators of OXYFLUORFEN 2EC that are made to a fallow bed or fallow field.

#### HERBICIDE RESISTANCE MANAGEMENT

Oxyfluorfen is a Group 14 herbicide that inhibits protoporphyrinogen oxidase (PPO). Fields should be scouted prior to application to identify the weed species present and their growth stage to determine if the intended application will be effective.

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

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.

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

## **BEST MANAGEMENT PRACTICES**

- Plant into weed-free fields and keep fields as weed-free as possible.
- To the extent possible, use a diversified approach toward weed management. Whenever possible incorporate multiple weed-control practices including mechanical cultivation, biological management practices, and crop rotation.
- Fields with difficult to control weeds should be rotated to crops that allow the use of herbicides with alternative mechanisms of action or different management practices.
- To the extent possible do not allow weed escapes to produce seeds, roots or tubers. Manage weed seeds at harvest and post-harvest to prevent a buildup of the weed seed- bank.

- Prevent field-to-field and within-field movement of weed seed or vegetative propagules. Thoroughly clean plant residues from equipment before leaving fields.
- Prevent an influx of weeds into the field by managing field borders.
- Identify weeds present in the field through scouting and field history and understand their biology.
   The weed-control program should consider all of the weeds present.
- Difficult to control weeds may require sequential applications of herbicides with differing mechanisms of action.
- Apply this herbicide at the correct timing and rate needed to control the most difficult weed in the field.
- Use a broad spectrum soil-applied herbicide with a mechanism of action that differs from this product
  as a foundation in a weed-control program. Do not use more than two applications of this or any
  other herbicide with the same mechanism of action within a single growing year unless mixed with an
  herbicide with another mechanism of action with an overlapping spectrum for the difficult-to-control
  weeds.
- If resistance is suspected, treat weed escapes with an herbicide with a different MOA or use nonchemical methods to remove escapes.

Contact your local Albaugh, LLC sales representative, crop advisor, or extension agent to find out if suspected resistant weeds to this MOA have been found in your region. If resistant biotypes of target weeds have been reported, use the application rates of this product specified for your local conditions. Tank mix products so that there are multiple effective mechanisms of actions for each target weed.

#### **WEEDS LISTED**

AGERATUM AMARANTH SPINY BALSAMAPPLE

BARNYARD GRASS (WATERGRASS)+

BEDSTRAW CATCHWEED BITTERCRESS/LESSER BLUEGRASS (ANNUAL)+ BUCKWHEAT WILD

BURCLOVER

**BUTTERCUP SMALLFLOWER** 

BUTTONWEED CAMPHORWEED

CANARYGRASS/ANNUAL

**CARPETWEED** 

CHEESEWEED (MALVA)

CLOVER, RED+ CLOVER, WHITE+ COCKLEBUR, COMMON

CRABGRASS, LARGE (HAIRY)

CROTALARIA CROTON, TROPIC

CUDWEED, NARROWLEAF EVENINGPRIMROSE, CUTLEAF

FIDDLENECK, COAST+ FILAREE, BROADLEAF FILAREE, REDSTEM FILAREE, WHITESTEM FIREWEED (FROM SEED)

**FLIXWEED** 

Ageratum conyzoides Amaranthus spinosus Momorcica charantia Echinconola crus-galli Galium aparine

Cardamine oligosperma

Poa annua

Polygonum convolvulus Medicago hispida Ranunculus aborvitus

Borreria laevis

Heterotheca subaxillaris Phalaris canariensis Mollugo verticillate Malva parviflora Trifolium pratense Trifolium repens

Xanthium pensylvanicum
Digitaria sanguinalis
Crotalaria species
Croton glandulosus
Gnaphalium falcatum
Oenothera laciniata
Amsinckia intermedia
Erodium botrys
Erodium cicutaruim
Erodium moschatum

Epilobium angustifolium Descurainia sophia

FOXTAIL, GIANT+ FOXTAIL, GREEN FOXTAIL, YELLOW GERANIUM, CAROLINA

GOOSEGRASS+ GROUNDCHERRY, CUTLEAF GROUNDCHERRY, WRIGHT GROUNDSEED, COMMON

**HENBIT** 

HORSEWEED (MARESTAIL)

**JIMSONWEED** 

JOHNSONGRASS, SEEDLING KNOTWEED, PROSTRATE LADYSTHUMB (SMARTWEED) LAMBSQUARTERS, COMMON

LETTUCE, PRICKLY (CHINA LETTUCE)

MALLOW, LITTLE (MALVA) MAYWEED (DOG FENNEL)

**MINERSLETTUCE** 

MORNINGGLORY SPECIES, ANNUAL

MORNINGGLORY, IVYLEAF+ MORNINGGLORY, TALL+

MUSTARD, BLACK

MUSTARD, BLUE (PURPLE MUSTARD)

MUSTARD, COMMON YELLOW

MUSTARD, HEDGE

MUSTARD, TUMBLE (JIM HILL MUSTARD)

MUSTARD, WILD NETTLE, BURNING

NIGHTSHADE, AMERICAN BLACK

NIGHTSHADE, BLACK NIGHTSHADE, HAIRY

OATS, WILD ORACH, RED

OXALIS (BERMUDA BUTTERCUP)

PANICUM, FALL

PEPPERWEED, VIRGINIA

PEPPERWEED, YELLOWFLOWER

PIGWEED, PROSTRATE PIGWEED, REDROOT PIMPERNEL, SCARLET POINSETTIA, WILD PUNCTUREVINE PURSLANE, COMMON PUSLEY, FLORIDA RAGWEED, COMMON

**REDMAIDS** 

ROCKET, LONDON RYEGRASS, ITALIAN SAGE, LANCELEAF SANDBUR, FIELD SANDSPURRY, RED SESBANIA, HEMP SHEPHERDSPURSE+

SICKLEPOD

SIDA, PRICKLY (TEAWEED)

Setaria faberi Setaria viridis Setaria lutescens Geranium carolinianum

Eleusine ndica Physalis angulata Physalis wrightii Senecio vulgaris Lamium amplexicaule Conyza canadensis Datura stramonium Sorghum halepense Polygonum aviculare Ploygonum persicaria Chenopodium album Lactuca serriola Malva parviflora Anthemis cotula Montia perfoliata Ipomoea species Ipomoea hederacea Ipomoea purpurea

Chorispora tenella
Brassica campestris
Sisymbrium officinale
Sisymbrium altissimum

Brassica kaber Urtica urens

Brassica nigra

Solanum americanum Solanum nigrum Solanum sarrachoides

Avena fatua
Atriplex rosea
Oxalis pes-caprae
Panicum dichotomiflorum
Lepidium virginicum
Lepidium perfoliatum
Amaranthus biltoides
Amaranthus retroflexus
Anagallis arvensis
Euphorbia heterophylla
Tribulus terrestris
Portulaca oleracea
Richardia scarbra
Ambrosia artemisiifolia
Calandrinia caulescens

Sisymbrium irio
Lolium multiflorum
Salvia reflexa
Cenchrus incertus
Spergularia rubra
Sesbania exaltata
Capsella bursa-pastoris
Cassia obtusifolia

Sida spinosa

SIGNALGRASS, BROADLEAF SMARTWEED. PENNSYLVANIA SORREL, RED (FROM SEED) SOWTHISTLE, ANNUAL SPEEDWELL. BIRDSEYE SPURGE, GARDEN SPURGE, PROSTRATE++ SPURGE, SPOTTED++ SPURRY, CORN **TANSYMUSTARD** THISTLE. BULL++ THISTLE, RUSSIAN **VELVETLEAF** WITCHGRASS WITCHWEED WOODSORREL, COMMON YELLOW Brachiaria platyphylla
Polygonum pensylvanicum
Rumex acetosella
Sonchus oleraceus
Veronica persica
Euphorbia hirta
Euphorbia supina
Euphorbia maculata
Spergula arvensis
Descurainia pinnata
Cirsium vulgare
Salsola kali
Abutilon theophrasti

Abutilon theophrasti Panicum capillare Striga asiatica Oxalis stricta

- + Highest rate and/or multiple applications may be required for acceptable control.
- ++Preemergence control only.

## **APPLICATION METHODS AND CULTURAL PRACTICES**

## PREEMERGENCE WEED CONTROL

Apply the specified rate in a broadcast spray volume of 15 or more gallons of water per acre using calibrated spray equipment capable of uniform application to the soil surface. Seeding weeds are controlled as they come in contact with the soil-applied herbicide during emergence. Preemergence weed control is most effective when OXYFLUORFEN 2EC is applied to soil surfaces that are clean (free of crop or weed residues or clippings) and weed-free. Prior to application, weed or crop residues must be removed by thorough incorporation into the soil using tillage equipment or by blowing the area to be treated. At least 0.25 inch of irrigation or rainfall is required to activate OXYFLUORFEN 2EC and must occur within 3 to 4 weeks after application. For optimum results, OXYFLUORFEN 2EC must be applied to prepared beds or soil surfaces that will be left undisturbed during the time period for which weed control is desired. Cultural practices that disturb or redistribute surface soil following treatment with OXYFLUORFEN 2EC including cutting water furrows will reduce weed control effectiveness.

**Application Rates and Rate Ranges**: Where rate ranges are given, use the lower rate in the rate range on coarse texture soils with less than 1% organic matter and lighter weed infestations. Use higher rates in the rate range on medium to fine texture soils, soils containing greater than 1% organic matter, heavy weed infestations, or for extended residual preemergence weed control.

## POSTEMERGENCE WEED CONTROL

Apply the specified rate in a broadcast spray volume of 20 or more gallons of water per acre (a minimum 10 gallons if applying OXYFLUORFEN 2EC in tank mix with glyphosate). Because OXYFLUORFEN 2EC is a contact herbicide, complete and uniform coverage of weed foliage is essential for optimum postemergence control. Increase the spray volume to ensure complete and uniform coverage as weed height and density increases or in the presence of heavy trash (weed or crop residue). Postemergence applications of OXYFLUORFEN 2EC are most effective when made to weeds at the seedling stage. Applications made later than the 4-inch or 4 leaf stage may result in partial control or suppression. Postemergence applications must be made to seedling grasses not exceeding the 2-leaf stage. The addition of 0.25% v/v (2 pints per 100 gallons of spray) of an 80% active nonionic surfactant, labeled for application to growing crops, will enhance herbicidal effectiveness in controlling emerged weeds.

**Postemergence Application Rates**: Where a rate range is given, use a higher rate in the rate range for heavy weed infestations, weeds in advanced stages of growth or for extended residual preemergence weed control following control of existing emerged weeds.

#### GROUND APPLICATION

**Ground Broadcast:** Apply OXYFLUORFEN 2EC using conventional low-pressure ground spray equipment with flat fan nozzles. Follow manufacturer's requirements for spraying pressure and boom height. An off-center (OC) nozzle positioned at the end of the boom may be desired. Check calibration of spray equipment before each use.

**Directed Sprays:** Apply OXYFLUORFEN 2EC as a low-pressure spray in a spray volume of 20 or more gallons of spray per acre (broadcast basis). Follow manufacturer's requirements for nozzle spacing and operating pressure. Direct spray toward the soil at the base of the crop. In row crops, use a minimum of 2 flat fan nozzles per row (one on each side) and for optimum spray coverage use 4 flat fan nozzles per row (two on each side). Point the two forward nozzles forward and downward while the rear nozzles point to the rear and downward. With either sprayer system, adjust nozzles to cover the weed foliage but minimize contact with the crop. **DO NOT** apply with hollow cone nozzles.

**IMPORTANT:** OXYFLUORFEN 2EC is a contact herbicide. Contact of sprays or drift with foliage or green stems can cause severe crop injury. Use directed sprays and spray shields and/or leaf lifters as necessary to minimize contact of spray or drift with crop foliage or stems. Young green stems of woody plants are also susceptible to injury from spray contact. Potential for injury to woody stems diminishes with loss of green color and the development of relatively impervious non-living corky tissue (bark) on the surface of the stem.

**Band Application:** Application rates listed in this label are for broadcast application. For band application the rate per broadcast acre must be reduced according to the following formula:

Band Width (in inches) X Rate per = Amount Needed per Acre Row Width (in inches) Broadcast Acre for Banded Application

## **SPOT APPLICATION**

For spot application, apply sprays uniformly to soil for preemergence weed control or on a spray-to-wet basis for postemergence weed control. Mix the required amount of OXYFLUORFEN 2EC with the specified amount of water. For preemergence weed control, use one-half to one gallon of spray per 1000 sq ft. for postemergence weed control use a minimum of 1 gallon of spray per 1000 sq ft and add an 80% nonionic surfactant at the rate of 0.5 fl oz (1 Tbs) per gallon of spray. If making spot applications within an established crop, use low-pressure sprays and direct the spray to the soil beneath the plants. To avoid crop injury, **DO NOT** allow sprays to contact leaves and stems of herbaceous plants or leaves or green stems of woody plants.

Amount of OXYFLUORFEN 2EC Required to Treat 1000 sq ft at Specified Application Rate					
0.5 pint/acre	1.0 pint/acre	2.0 pint/acre	3.0 pint/acre	4.0 pint/acre	8.0 pint/acre
(0.125 lbs of	(0.25 lbs of	(0.5 lbs of	(0.75 lbs of	(1.0 lbs of	(2.0 lbs of
active)	active)	active)	active)	active)	active)
0.2 fl oz	0.4 fl oz	0.75 fl oz	1.1 fl oz	1.5 fl oz	3.0 fl oz
(5.5 ml)	(11 ml)	(22 ml)	(33 ml)	(44 ml)	(88 ml)

<sup>1</sup> pint = 16 fl oz; 1 fl oz = 29.6 (30) ml

## **AERIAL APPLICATION**

Use aerial boom equipment designed for use with herbicides and a minimum spray volume of 10 gallons per acre (5 gallons per acre if tank mixed with glyphosate). **DO NOT** aerially apply OXYFLUORFEN 2EC unless crop-specific use directions specifically allow and provide directions for aerial application.

**AVOID DRIFT:** Exercise extreme care to void herbicide contact with any desirable dormant or non-dormant crop, plant, tree or vegetation as severe injury may result. Extreme care must be exercised to prevent spray drift that could result in damage to other crops or desirable vegetation. Adhere to the following guidelines when aerial applications are to be made.

#### **CHEMIGATION**

**DO NOT** apply this product through any irrigation system unless the instructions for chemigation are followed. If application by chemigation is not specifically listed under the specific crop use instructions, OXYFLUORFEN 2EC herbicide may not be applied to that crop through an irrigation system.

Apply this product only through sprinkler (center pivot, solid set, portable lateral, or low-volume (micro sprinkler), drip (trickle), or flood (basin) irrigation systems. Refer to use directions for specific crops for instructions as to which type of irrigation system may be used. **DO NOT** apply this product through any other type of irrigation system.

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

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

**DO NOT** connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system unless the pesticide 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 the supervision of the responsible person, shall shut the system down and make necessary adjustments if the need arise.

## SPRINKLER CHEMIGATION (FOLIAR SPRAY USES)

For sprinkler irrigation, sufficient water must be applied at the beginning of the irrigation period to ensure uniform wetting of the plant and/or soil surfaces. Meter OXYFLUORFEN 2EC at a continuous uniform rate during the middle 1/3 of the irrigation period to allow for uniform distribution to the vegetation and/or soil surface. Continue irrigation during the final 1/3 of the irrigation period to ensure proper flushing of the irrigation system. During sprinkler irrigation, sufficient water must be applied to ensure water penetration to a depth of two inches.

**AVOID DRIFT:** Extreme care must be exercised to prevent spray drift that could result in damage to other crops or desirable vegetation. Use the following guidelines when applications of OXYFLUORFEN 2EC are made through sprinkler irrigation:

- **DO NOT** apply when the wind direction is not stable, when inversion conditions exist, or when wind velocity exceeds 10 mph.
- When wind speeds are 5 mph or less, maintain a minimum download buffer zone of at least ½ mile from all crops and desirable vegetation, except for the following:
  - Maintain a minimum download buffer of:
    - o 150 feet from dormant treefruit, dormant vines and overwintering sugar beets.
    - o 650 feet from garlic, jojoba, legumes, onions, pastures, small grains, seedling sugar

- beets and vegetable fallow beds.
- When wind speeds are between 5 and 10 mph, downwind buffer zones in excess of those listed above are suggested.
- For upwind and side borders, maintain a minimum buffer zone of 150 feet from any vegetable fallow bed, crop, or desirable vegetation.

To apply a pesticide using sprinkler chemigation, the chemigation system must meet the following specifications:

- The system must contain a functional check valve, vacuum relief valve, and low-pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow.
- The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
- The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
- The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
- The irrigation line or water pump must include a functional pressure switch, which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.
- Systems must use a metering pump, including a positive displacement injection pump (e.g. diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.
- DO NOT apply when wind speed favors drift beyond the area intended for treatment.

## FLOOD (BASIN) CHEMIGATION (SOIL DRENCH USES)

OXYFLUORFEN 2EC must be continuously metered into the water during the entire irrigation period. Agitation in the pesticide supply tank is suggested. Best weed control results from OXYFLUORFEN 2EC applied through flood (basin) irrigation systems are obtained when a uniform distribution and flow of irrigation water is maintained over level land.

Systems using a gravity flow pesticide dispensing system must meter the pesticide into the water at the head of the field and downstream of a hydraulic discontinuity including drop structure or weir box to decrease potential for water source contamination from backflow if water flow stops. Systems utilizing a pressurized water and pesticide injection system must meet the following requirements:

- The system must contain a functional check valve, vacuum relief valve, and low-pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow.
- The pesticide injection pipeline must contain a functional automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
- The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
- The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
- The irrigation line or water pump must include a functional pressure switch, which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.
- Systems must use a metering pump, including a positive displacement injection pump (e.g. diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

## DRIP (TRICKLE) CHEMIGATION (SOIL DRENCH USES)

Meter OXYFLUORFEN 2EC at a continuous uniform rate during the middle 1/3 of the irrigation period to allow for uniform distribution to the soil surface. For best results, OXYFLUORFEN 2EC must be uniformly positioned across the wetted area to help reduce the "ring effect" of weed escapes, as other products begin to break down around the emitter. Continue irrigation during the final 1/3 of the irrigation period to ensure proper flushing of the irrigation system.

To apply a pesticide using drip (trickle) chemigation, the chemigation system must meet the following specifications:

- 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 pipe and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
- The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops. The irrigation line or (water pump must include a functional pressure switch, which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.
- Systems must use a metering pump including a positive displacement injection pump (e.g. diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

# CHEMIGATION CALIBRATION: FOR LOW-VOLUME SPRINKLERS (MICROSPRINKLERS) AND DRIP (TRICKLE) IRRIGATION SYSTEMS

Calculation of use rate is based on wetted area around emitters - NOT on grove acres. To determine correct amount of OXYFLUORFEN 2EC, use the following formula:

 Treated area per each emitter = A A = 3.14 x (radius x radius)

Example: If the average distance from emitter to perimeter of wetted area measured at the soil surface is 13 inches, then

A = 3.14 X (13" x 13") A = 3.14 X (169) A = 530.7 square inches

The area in square feet wet in each acre = B
 B = A X emitters/acre

144

Example: If there are 300 emitters per acre, then  $B = 530.7 \times 300 = B = 1105.6$  square feet wetted per acre 144

The total area (in square feet) wet by your system = C
 C = B X acres covered by system

Example: If the system covers 20 acres, then C = 1105.6 square feet per acre x 20 acres C = 22,112 square feet wetted by system

4. Amount of OXYFLUORFEN 2EC to inject = S

Rate per treated acre of OXYFLUORFEN 2EC = R

Example: If the desired application rate per treated acre is 1 quart of OXYFLUORFEN 2EC, then

S = 22,112 X 1.0 = S = 0.507 quarts of OXYFLUORFEN 2EC must be injected into system. 43,560

NOTE: Select the proper rate based on weed spectrum and desired length of control (See RATE RANGES section below).

#### CHEMIGATION SYSTEMS CONNECTED TO PUBLIC WATER SYSTEMS

If the chemigation system is connected to a public water supply, the following conditions must also be met:

- Public water systems 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.
- Chemigation systems connected to public water systems must contain a functional reduced-pressure zone, backflow preventer (RPZ) or the functional equivalent in the water supply line upstream from a point of pesticide introduction. As an option to the RPZ, the water from the public water system must be discharged into a reservoir tank prior to pesticide introduction. There shall be a complete physical break (air gap) between the outlet end of the fill pipe and the top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe.
- The pesticide injection pipeline must 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 shutdown.
- The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops, or in cases where there is no water pump, when the water pressure decreases to the point where pesticide distribution is adversely affected.
- Systems must use a metering pump, including a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

#### **CULTURAL CONSIDERATIONS**

In order for OXYFLUORFEN 2EC to provide maximum preemergence activity:

Prior to application, the bed or soil surface must be smooth and free of crop and weed trash (decaying leaves, clippings, dead weeds, etc.). Leaves and trash may be removed by blowing the area to be treated or by thoroughly mixing the trash into the soil through cultivation prior to herbicide application. After application, at least one-quarter inch (1/4 inch) of irrigation or rainfall must occur within 3 or 4 weeks after application. The best results from OXYFLUORFEN 2EC are from applications to established beds or soil surfaces that are left undisturbed during the time period for which weed control is desired. Cultural practices that result in redistribution or disturbance of the soil surface after treatment will decrease the herbicidal effectiveness of OXYFLUORFEN 2EC. Cutting water furrows or cultivations that mix untreated soil into treated areas will also reduce the effectiveness of the treatment.

## **RATE RANGES**

Select proper application rates based on soil conditions, weed spectrum and desired period of residual weed control.

**Preemergence Application:** Where rate ranges are given, use the lower rate in the rate range on coarse texture soils with less than 1% organic matter. Use higher rates in the rate range on medium to fine texture soils, soils containing greater than 1% organic matter, or where a longer period of residual weed control is desired.

**Postemergence Application:** Where a rate range is given, use higher rate in rate range for heavy weed infestations, weeds in advanced stages of growth or where a longer period of residual weed control is desired.

### MIXING DIRECTIONS

Shake Well Before Using. Fill the spray tank at least one-third full of clean water. With the pump and agitator running, add the specified amount of herbicides to the spray tank. The order of addition to the spray tank must be (1) wettable powders, (2) flowables and (3) soluble liquids. Complete filling of the spray tank with water.

**Use of Surfactants:** For all applications of OXYFLUORFEN 2EC (except garlic and onions) where postemergence weed control is desired, add 2 to 4 pints of Latron AG-98 nonionic surfactant (or comparable 80% active nonionic surfactant cleared for application to growing crops) per each 100 gallons of spray. The addition of 4 pints of Latron AG-98 per 100 gallons of spray is specified to enhance postemergence activity when hard water (greater than 600 ppm) is used as carrier. Maintain agitation until spraying is completed.

#### **Tank Mixing Precautions:**

- Read and carefully follow all applicable use directions, precautions, and limitations on the respective product labels. In interpreting the labels of tank mixed products, the most restrictive label limitations must apply.
- DO NOT exceed specified application rates. DO NOT tank mix with another pesticide product that contains the same active ingredient as the product unless the label of either tank mix partner specifies the maximum dosages that may be used. It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

**Tank Mix Compatibility Testing:** A jar test is advised prior to tank mixing to ensure compatibility of this product and other pesticides. Use a clear glass quart jar with lid and mix the tank mix ingredients in their relative proportions. Invert the jar containing the mixture several times and observe the mixture for approximately 1/2 hour, if the mixture balls-up, forms flakes, sludges, gels, oily films or layers, or other precipitates, it is not compatible and the tank mix combination must not be used.

**Sprayer Cleanup:** Thoroughly flush spray equipment (tank, pump, hoses and boom) with clean water before and after each use. Residues of OXYFLUORFEN 2EC remaining in spray equipment may damage other crops. The addition of a non-ionic surfactant to equipment flushing waters at the rate of 1 quart per 100 gallons is required to aid in removal of residues of OXYFLUORFEN 2EC.

## **CROP-SPECIFIC USE INFORMATION**

## ARTICHOKE (GLOBE)

Post-Directed Spray Application

Weed Control	Rate (pint/acre)	Specific Use Directions
Preemergence Postemergence	4 – 6 (1.0 - 1.5 lbs of active)	<b>Application Method:</b> Apply as a directed spray to the soil surface between the rows and at the base of artichoke plants in a minimum spray volume of 40 gallons per acre.
		<b>Timing to Crop:</b> Apply after completion of ditching operations. Separate applications of up to 4 pint/acre (1.0 lbs of active) may be made 8 to 10 weeks apart or a single application of up to 6 pint/acre(1.5 lbs of active) may be made.
		Timing to Weeds: Preemergence up to 8 leaf stage.

## Restrictions:

- Application of OXYFLUORFEN 2EC to artichoke plantings must be delayed a minimum of 60 days after cutting back or transplanting.
- **DO NOT** apply more than 6 pints (1.5 lbs of active) of OXYFLUORFEN 2EC per acre per year as a result of a single application or multiple applications.
- **DO NOT** apply more than 6 pints (1.5 lbs of active) in a single application.
- **DO NOT** make more than 2 applications per year when using reduced application rates.
- DO NOT make second application within 8 weeks of first.
- **DO NOT** apply over-the-top. Contact with direct spray or drift will cause injury to artichoke fronds or severe injury to buds or flowers.
- Preharvest Interval: **DO NOT** apply within 5 days of harvest.

## **Key Weeds Controlled:**

Preemergence	Postemergence
cheeseweed (malva)	cheeseweed (malva)
groundsel, common	groundsel, common
lambsquarter, common	mustard, common yellow
mustard, common yellow	nettle, burning
oxalis (Bermuda buttercup)†	oxalis (Bermuda buttercup)†
shepherdspurse	shepherdspurse
sowthistle, annual	sowthistle, annual

<sup>†</sup> Suppression

## **BLACKBERRY AND RASPBERRY PRIMOCANE SUPPRESSION**

For Use only in Oregon and Washington

Crop	Rate (Pint/acre) <sup>†</sup>	Specific Use Directions
Blackberry	1.6 – 3.2 (0.4 - 0.8 lbs of active)	Apply OXYFLUORFEN 2EC in a minimum spray volume of 50 gallons per broadcast acre to primocanes which have emerged 4 to 6 inches. Proper timing of the spray application is essential. Application to primocanes greater than 6 inches may result in unacceptable cane growth (bent canes).
Raspberry	0.75 – 3.0 (0.187 – 0.375 lbs of active)	The highest use rate and/or additional applications may be required to achieve acceptable suppression of vigorous early season primocane growth. On shorter season plantings (in higher elevations) or plantings grown on light (sandy) textured soils, reduced rates may provide acceptable primocane suppression. Primocane suppression from OXYFLUORFEN 2EC may last from 3 to 6 weeks, therefore, timing, rate, and number of applications must be adjusted according to plant health and vigor and the desired length of primocane suppression.
		The addition of 2 pints of an 80% active nonionic surfactant cleared for application to growing crops) per 100 gallons of spray solution is advised.

#### Precautions:

 Occasionally, after the use of OXYFLUORFEN 2EC, a spotting; crinkling or flecking may appear on the leaves of the fruiting canes. Some blackberry varieties may be more sensitive than others. This is to be expected and does not affect performance or yield. Leaves of the fruiting canes, which receive direct or indirect (drift) spray contact will be injured.

## **Crop-Specific Restrictions:**

- **DO NOT** use OXYFLUORFEN 2EC on blackberry plantings which are weak or under stress, due to temperature, disease, fertilizer, nematodes, insects, pesticides, drought or excessive moisture. as primocane growth may be insufficient for the following year's crop.
- Chemigation: DO NOT apply this product through any type of irrigation system.
- OXYFLUORFEN 2EC must be applied only by ground application equipment.
- OXYFLUORFEN 2EC is phytotoxic to plant foliage. Avoid accidental spray contact or drift with established crops.
- **DO NOT** apply when weather conditions favor drift to non-target areas.
- **DO NOT** treat ditch banks or waterways with OXYFLUORFEN 2EC or contaminate water used for irrigation or domestic purposes.
- **DO NOT** make follow up applications within 8 weeks of previous application when using reduced application rates.

## **Blackberry**

- DO NOT apply more than 3.2 pints (0.8 lb. active) broadcast per acre of OXYFLUORFEN 2EC in a single
  application
- DO NOT apply more than a total of 6 pints (1.5 lbs. active) broadcast per acre per year
- **DO NOT** apply more than four (4) applications per year when using reduced application rates.
- DO NOT apply OXYFLUORFEN 2EC within 15 days of harvest.

## Raspberry

- **DO NOT** apply more than 3 pints (0.75 lb. active) broadcast per acre of OXYFLUORFEN 2EC in a single application.
- DO NOT apply more than a total of 5 pints (1.25 lbs. active) broadcast per acre per year
- **DO NOT** apply more than two (2) applications per year when using reduced application rates.
- DO NOT apply OXYFLUORFEN 2EC within 50 days of harvest.

<sup>&</sup>lt;sup>†</sup> Dosages listed are for broadcast application. See Ground Application section of this label for conversion to band application rates.

## **BLACKBERRY PRIMOCANE SUPPRESSION**

During Nonbearing Year of Alternate Year Blackberry Production For Use Only in Oregon

Crop	Rate (Pint/acre) <sup>†</sup>	Specific Use Directions	
Blackberry	2 – 4 (0.25 – 0.5 lbs of active)	Apply OXYFLUORFEN 2EC to the unwanted vegetative growth at the base of the blackberry plants. The addition of 2 pints of an 80% active nonionic surfactant cleared for application to growing crops) per 100 gallons of spray solution is advised.  OXYFLUORFEN 2EC must be applied after a sufficient number of canes have been bundled and trained to the trellis wire. The first application is made when the primocanes to be saved have reached either the bottom wire or approximately 4 feet in length (typically early to mid-June). OXYFLUORFEN 2EC must be directed to the lower portion of the canes to reduce unwanted lateral growth and excessive foliage that normally develops at the base of each plant. The primocanes to be saved must be trained at an adequate height above the directed spray. A second application (typically mid-July to mid-September after the primocanes are trellised and wrapped on wire) may be applied to suppress new growth, leaves and lateral spurs that develop at the base of the plant. Application timing will vary according to location and vigor of planting.  Spray coverage is essential for optimum activity on unwanted vegetation. OXYFLUORFEN 2EC must be applied at a minimum of 30 gallons of water per broadcast acre in a 3-foot band directed towards the lower portion of the blackberry canes in the primocane row. Use a low-pressure spray system (suggested 30 to 60 psi). Mounted nozzles are to be used to deliver the spray solution. Spray equipment must be calibrated carefully before each use.	

## **Precautions:**

 Occasionally, after the use of OXYFLUORFEN 2EC, a spotting; crinkling or flecking may appear on the leaves of the fruiting canes. Some blackberry varieties may be more sensitive than others. This is to be expected and does not affect performance or yield. Leaves of the fruiting canes, which receive direct or indirect (drift) spray contact will be injured.

## **Crop-Specific Restrictions:**

- **DO NOT** use OXYFLUORFEN 2EC on blackberry plantings that are weak, or under stress due to temperature, disease, fertilizer, nematodes, insects, pesticides, drought or excessive moisture.
- Chemigation: **DO NOT** apply this product through any type of irrigation system.
- OXYFLUORFEN 2EC must be applied only by ground application equipment. OXYFLUORFEN 2EC is phytotoxic to plant foliage.
- Avoid accidental spray contact or drift with established crops. DO NOT apply when weather conditions favor drift to non-target areas.
- DO NOT apply more than 4 pints (1.0 lb. active) of OXYFLUORFEN 2EC broadcast per acre in a single application
- **DO NOT** apply more than 8 pints (2.0 lbs. active) broadcast per acre per year.
- **DO NOT** apply more than two applications per year when using reduced application rates.
- **DO NOT** make follow up application within 8 weeks of previous application.
- For application only during the nonbearing year of blackberries grown using Alternate Year (AY)
  management system.
- DO NOT apply OXYFLUORFEN 2EC to blackberries during the bearing season.
- In all states except Northeastern states, **DO NOT** apply until direct seeded garlic plants have two (2) fully developed true leaves. In the Northeastern states, **DO NOT** apply until direct seeded garlic plants have three (3) fully developed true leaves. Application made prior to the specified growth stage may result in

serious crop injury.

- DO NOT apply within 60 days of harvest.
- In direct seeded garlic (except in California), DO NOT apply OXYFLUORFEN 2EC as a preemergence treatment.
- Use only on dry bulb garlic. **DO NOT** apply to garlic grown for seed.
- For weed control in Garlic, **DO NOT** mix OXYFLUORFEN 2EC with oils, surfactants, liquid fertilizers or pesticides except as specified on approved Albaugh Supplemental Labeling.
- **DO NOT** apply to garlic plants that are under stress due to drought, flooding, excessive fertilizer or soil salts, storage conditions, wind injury, hail, frost damage, injury from previously applied pesticides, or injury due to insects, nematodes or diseases.

† Dosages listed are for broadcast application. See Ground Application section of this label for conversion to band application rates.

## **BROCCOLI / CABBAGE / CAULIFLOWER**

Pre-Transplant (Preplant) Application for Preemergence Broadleaf Weed Control

Weed Control	Rate (pint/acre )	Specific Use Directions
Preemergence	(0.25 -0.5 lbs of	Pre-Transplant Application Only: Apply broadcast to final seedbed prior to transplanting. Use lower rate in the rate range on coarse textured soils with less than 1% organic matter. Use the highest rate in the rate range on medium to fine textured soils or soils containing greater than 1% organic matter.  Transplanting must be accomplished with minimal soil disturbance and soil left undisturbed during the time weed control is desired.

#### Precautions:

- Pre-transplant applications may result in initial, but temporary, crop injury (leaf cupping or crinkling) and is enhanced if crop leaves come in direct contact with treated soil. Crop will rapidly outgrow this condition and develop normally. Severe crop injury may result if transplants are under stress due to temperature, disease, fertilizer, nematodes, insects, pesticides or storage conditions. The use of transplants less than 5 weeks old or use of extremely succulent transplants grown in containers less than 1 inch square may increase the severity of crop injury. Hardening off, increasing the age of transplants or increasing the size of the rooting containers will lessen the possibility and/or severity of potential crop injury.
- OXYFLUORFEN 2EC will assist in early season annual grass control, however, a herbicide program for preemergence or postemergence control of annual grasses is advised.
- Applications to muck soils may result in partial weed control or suppression
- Furrow and drip irrigation immediately after transplanting and under high temperatures can result in increased crop injury. Sprinkler irrigation is advised during early establishment of transplants. If these conditions cannot be met, OXYFLUORFEN 2EC herbicide must not be used.

## **Crop-Specific Restrictions:**

- **DO NOT** apply more than 2 pints (0.5 lbs of active) of OXYFLUORFEN 2EC per treated acre per year.
- **DO NOT** make more than one application per year.
- DO NOT apply more than 2 pints (1.0 lb. active) of OXYFLUORFEN 2EC broadcast per acre in a single application
- DO NOT apply OXYFLUORFEN 2EC if an acetanilide herbicide including Dual Magnum herbicide, Lasso herbicide, or Ramrod herbicide has been applied to the field during the current growing year as severe crop injury may occur.
- DO NOT apply OXYFLUORFEN 2EC as a preemergence treatment to direct-seeded broccoli, cabbage or cauliflower.
- DO NOT apply OXYFLUORFEN 2EC post-transplant or over-the-top of broccoli, cabbage or cauliflower.

### Key Weeds Controlled:

	Preemergence
carpetweed pigweed, redroot purslane, common smartweed, Pennsylvania	

## **CACAO (BEARING AND NONBEARING)**

(For Use Only in Hawaii)

OXYFLUORFEN 2EC may be applied as a pre-transplant treatment or to established or recently transplanted cacao.

Weed Control	Rate (pint/acre)	Specific Use Directions
Preemergence	2 – 8	Pre-transplant Application: Up to 4 pints (1.0 lbs of active) per acre may be
Postemergence	(0.5 - 2.0) lbs of	applied as a pre-transplant application.
	,	Application to Established Plantings: In established plantings, including recently transplanted cacao plants, apply as a directed spray to the orchard floor. Use higher rates in rate range and increase spray volume to control dense growth of existing weeds or for extended residual preemergence weed control.

## Precautions:

 OXYFLUORFEN 2EC must be applied to only healthy growing trees/transplants of suitable size to allow directed sprays. Avoid spray contact with foliage.

## **Crop-Specific Restrictions:**

- DO NOT apply more than 8 pints (2.0 lbs. of active) of OXYFLUORFEN 2EC per acre as a single application.
- **DO NOT** apply more than 24 pints (6.0 lbs of active) per acre per year.
- DO NOT make more than 4 applications per acre per year when using reduced application rates.
- **DO NOT** make follow up applications within 10 weeks of previous application.
- Preharvest Interval: DO NOT apply OXYFLUORFEN 2EC within 1 day of harvest.
- DO NOT apply preplant or preemergence to direct-seeded cacao.

## Kev Weeds Controlled:

Preemergence	Postemergence	
ageratum	purslane, common	
buttonweed	spurge, garden	
crotalaria		
purslane, common		
spurge, garden		

## CITRUS (NONBEARING)

Citrus, including Calamondin, Chironja, Citrus Citron, Grapefruit, Kumquat, Lemon, Lime, Mandarin, Pummelo, Satsuma Mandarin, Sour Orange, Sweet Orange, Tangelo, Tangerine, Tangor

OXYFLUORFEN 2EC may be applied only in non-bearing citrus orchards. Apply only as a directed spray to the orchard floor avoiding contact with citrus foliage.

Weed Control	Rate (pint/acre)	Specific Use Directions
Preemergence	6	Preemergence Weed Control: Up to 6 pint/acre (1.5 lbs of active) may be
	(1.5 lbs of	applied for residual preemergence weed control.
	active)	
Postemergence	2 – 6	Postemergence Weed Control: The 6 pint/acre (1.5 lbs of active) rate will
	(0.5 - 1.5)	control weeds up to 4 inches tall. Weeds greater than 4-leaf or 4 inches tall
	lbs of active)	may be partially controlled. Use sufficient spray volume for complete and
		uniform coverage of weeds. Increase the spray volume with increased weed
		height and density to ensure complete coverage.

Tank Mixing: Refer to Mixing Directions section for Tank Mixing Precautions.

- Preemergence Use: For residual control of grass weeds, OXYFLUORFEN 2EC may be tank mixed with grass herbicides labeled for use in citrus.
- Postemergence Use: For broader spectrum postemergence control of emerged grass and broadleaf weeds, OXYFLUORFEN 2EC may be tank mixed with paraquat or glyphosate.

## **Crop-Specific Restrictions:**

- Apply OXYFLUORFEN 2EC only to nonbearing citrus (trees that will not bear fruit for one year).
- **DO NOT** apply more than 6 pints (1.5 lbs of active) of OXYFLUORFEN 2EC per acre per year as a result of a single or multiple applications.
- **DO NOT** apply more than 6 pints (1.5 lbs of active) in a single application.
- DO NOT make more than 3 applications per acre per year when using reduced application rates.
- DO NOT make follow up applications within 8 weeks of previous application
- **DO NOT** apply during periods of new citrus foliage growth. Applications must be made after foliage has fully expanded and hardened off. Avoid direct spray contact with citrus foliage.
- DO NOT apply within 365 days of harvest.

#### Key Weeds Controlled:

(Arizona an	d California)	(Florida, Louisiana and Texas)		
Preemergence	Postemergence	Preemergence	Postemergence	
burclover cheeseweed (malva) fiddleneck, coast filaree, broadleaf filaree, redstem filaree, whitestem groundsel, common	cheeseweed (malva) fiddleneck, coast filaree, broadleaf † filaree, redstem † filaree, whitestem † groundsel, common henbit	cutweed, narrowleaf eveningprimrose, cutleaf †† groundcherry, cutleaf lambsquarters, common nightshade, American black nightshade, black pepperweed, Virginia	balsamapple cudweed, narrowleaf ††† eveningprimrose, cutleaf †† groundcherry, cutleaf groundcherry, Wright lambsquarters, common morningglory, annual	
henbit knotweed, prostrate lambsquarters, common lettuce, prickly pigweed, redroot purslane, common redmaids rocket, London shepherdspurse sowthistle, annual spurge, prostrate spurge, spotted	minerslettuce nettle, burning pigweed, redroot redmaids shepherdspurse sowthistle, annual	pigweed, redroot poinsettia, wild pusley, florida sida, prickly (teaweed) smartweed, Pennsylvania sowthistle, annual spurge, prostrate spurge, spotted	nightshade, American black nightshade, black pepperweed, Virginia pigweed, redroot poinsettia, wild purslane, common pusley, florida sida, prickly (teaweed) smartweed, Pennsylvania sowthistle, annual	

<sup>†</sup> OXYFLUORFEN 2EC at the 6 pint/acre (1.5 lbs of active) will provide control of filaree and other weeds up to 4-inch stage. Applications to weeds beyond the 4-inch stage may result in partial control.

## **CLARY SAGE**

(For Use Only in North Carolina)

Clary Sage (Salvia sclarea) Grown and Utilized in the Essence Industry

Weed Control	Rate (pint/acre)	Specific Use Directions
Postemergence	(0.125 –	OXYFLUORFEN 2EC may be applied to established clary sage for control of henbit ( <i>Lamium ampyexicaule</i> ) and other winter annual broadleaf weeds during the winter and spring season.
	,	Apply shortly after the first flush of henbit is in the 2- to 4-leaf stage of growth. Additional applications may be required to control subsequent weed flushes through the spring season. After treatment, henbit will stop growing and slowly die. Increase the spray volume if weed growth is dense.

## Precautions:

• Clary sage may respond to the topical application of this product with some marginal leaf burn, but recovery is rapid.

## **Crop-Specific Restrictions:**

- **DO NOT** apply more than 1 pints (0.25 lbs of active) in a single application
- **DO NOT** apply more than 6 pints (1.5 lbs of active) per acre per year.
- **DO NOT** make more than 6 applications per year.
- **DO NOT** make follow up applications within 8 weeks of previous application.
- **DO NOT** make last application within 5 days of harvest.

<sup>&</sup>lt;sup>††</sup> Highest rate and/or multiple applications may be required for acceptable control.

<sup>†††</sup> Maximum 0.5-inch diameter.

## **COFFEE (BEARING AND NONBEARING)**

(For Use Only in Hawaii)

OXYFLUORFEN 2EC may be applied to established coffee, recently transplanted coffee, or as a pretransplant treatment. In established non-dormant coffee, apply as a directed spray avoiding contact with crop foliage. Newly established transplants must be healthy and well established and of sufficient size to allow use of directed sprays without contacting crop foliage.

OXYFLUORFEN 2EC may be applied over-the-top of dormant coffee transplants. Transplants are considered to be dormant when active terminal growth has ceased and terminal buds have formed. Application over-the-top of coffee plants after buds start to swell (a sign that new growth has resumed) may result in crop injury.

Weed Control	Rate (pint/acre)	Specific Use Directions
Preemergence	2 – 8	Preemergence Weed Control:
Postemergence	(0.5 – 2.0 lbs of active)	Apply as a directed spray to the orchard floor beneath established coffee plants.
		Up to 4 pints (1.0 lbs of active) per acre may be applied as a pre- transplant application prior to transplanting coffee plants.
		Postemergence Weed Control:
		Increase the spray volume when weed growth is dense or trash is
		present; or use a higher rate within the rate range for extended residual
		preemergence weed control.

**Tank Mixing:** Refer to Mixing Directions section for Tank Mixing Precautions. Apply tank mixes only as directed sprays.

## **Crop-Specific Restrictions:**

- To prevent foliar injury, **DO NOT** apply during periods of rapid new growth or allow spray or drift to contact actively growing foliage.
- DO NOT apply preplant or preemergence to direct-seeded coffee.
- **DO NOT** apply more than 8 pints (2.0 lbs. of active) broadcast per acre of OXYFLUORFEN 2EC in a single application.
- **DO NOT** apply more than 24 pints (6.0 lbs of active) broadcast per acre per year.
- DO NOT make more than 4 applications per year when using reduced application rates.
- Minimum retreatment interval between applications is 10 weeks.
- Preharvest Interval: DO NOT apply OXYFLUORFEN 2EC within one (1) day of harvest.

## Key Weeds Controlled:

Preemergence	Postemergence
ageratum	purslane, common
buttonweed	spurge, garden
crotalaria	
purslane, common	
spurge, garden	

## CONIFER SEEDBEDS, TRANSPLANTS, CONTAINER STOCK AND SELECTED FIELD GROWN DECIDUOUS TREES

**Tank Mixing:** Refer to Mixing Directions section for Tank Mixing Precautions. Apply tank mixes only as directed sprays.

## **Crop-Specific Restrictions:**

- Apply OXYFLUORFEN 2EC only to healthy conifer stock. DO NOT apply OXYFLUORFEN 2EC to conifers
  that are under stress from excessive fertilizer or soil salts, disease, nematodes, frost, drought, flooding,
  previously applied pesticides, soil insects, or winter injury, as severe injury may result.
- DO NOT apply for conifer release in forest management programs or for forest regeneration applications.
- DO NOT graze or harvest livestock forage from treated areas.
- DO NOT apply OXYFLUORFEN 2EC in an enclosed greenhouse structure as injury to plant foliage may result.
- **DO NOT** store or transport treated container stock in an enclosed structure until completion of 4 irrigations (minimum 21 days) as injury to non-labeled plants may occur.

Key Weeds Controlled: When OXYFLUORFEN 2EC is applied preemergence or postemergence at specified dosages and weed stages.

barnyardgrass †	foxtail, giant <sup>†</sup>	mustard, blue	shepherdspurse †
bedstraw, catchweed	goosegrass †	mustard, tumble	sida, prickly
bittercress, lesser	groundcherry, cutleaf	mustard, wild	smartweed,
bluegrass, annual †	groundcherry, wright	nettle, burning	Pennsylvania
buckwheat, wild	groundsel, common	nightshade, black	sorrel, red (from seed)
burclover	henbit	nightshade, hairy	sowthistle, annual
carpetweed	jimsonweed	oats, wild	speedwell, birdseye
clover, red †	knotweed, prostrate	orach, red	spurge, prostrate ††
clover, white †	ladysthumb	pepperweed,	spurge, spotted ††
cocklebur, common	lambsquarters, common	yellowflower	spurry, corn
crabgrass, large†	lettuce, prickly	pigweed, prostrate	tansymustard
fiddleneck, coast †	mallow, little	pigweed, redroot	thistle, bull ††
filaree, broadleaf	mayweed	pimpernel, scarlet	thistle, Russian
filaree, redstem	minerslettuce	purslane, common	velvetleaf
fireweed (from seed)	morningglory, ivyleaf †	redmaids	witchgrass
flixweed	morningglory, tall <sup>†</sup>	rocket, London	woodsorrel, yellow ††
		sandspurry, red	

<sup>†</sup> Highest rate and/or multiple applications may be required for acceptable control.

<sup>††</sup> Preemergence control only.

## **CONIFER SEEDBEDS**

OXYFLUORFEN 2EC provides both postemergence and residual preemergence control of many broadleaf weeds and annual grass species.

Seeded conifers are tolerant to preemergence and postemergence applications of OXYFLUORFEN 2EC. For weed control during the establishment of conifer seedlings, OXYFLUORFEN 2EC can be applied after seedling of conifers, but prior to emergence. For weed control in emerged conifers, OXYFLUORFEN 2EC may be applied over-the-top, but application must be delayed a minimum of 5 weeks after seedling emergence. If application is made during cool, cloudy weather, make certain that seedlings have hardened-off prior to spraying.

Weed Control	Rate (pint/acre)	Specific Use Directions
Preemergence	1 – 4 (0.25 – 1.0 lbs of active)	Application after planting, but prior to emergence of conifer seedlings: Where grass weeds are present, apply 2 to 4 pints (0.5 – 1.0 lbs of active) per acre. In known areas of high weed competition, apply 4 pints (1.0 lbs of active) of OXYFLUORFEN 2EC per acre. Broadcast to beds and irrigate with 1/2 to 3/4 inch of sprinkler irrigation before weed emergence. OXYFLUORFEN 2EC is most effective on annual grasses when applied preemergence.
Postemergence	1 – 2 (0.25 – 0.5 lbs of active)	Application after emergence of conifer seedlings: Application must be made to seedling weeds less than 4 inches in height (seedling grasses not exceeding the 2-leaf stage). Depending of subsequent weed flushes, multiple applications may be necessary to achieve year-long weed control.

**Chemigation:** OXYFLUORFEN 2EC may be applied at labeled rates through sprinkler irrigation systems. For center pivot irrigation systems, apply the specified dosage of OXYFLUORFEN 2EC per acre metered at a continuous uniform rate during the entire irrigation period, otherwise meter OXYFLUORFEN 2EC at a continuous uniform rate during the middle 1/3 of the irrigation period. When applying by sprinkler irrigation, follow directions given in the Chemigation Instructions section of this label.

#### Precautions:

• Occasionally spotting, crinkling, or flecking may appear on leaves of conifers. Leaves that receive direct spray or drift may be injured, but typically outgrow this condition rapidly and develop normally.

## **Crop-Specific Restrictions:**

- DO NOT apply more than 8 pints (2.0 lbs of active) of OXYFLUORFEN 2EC per acre per year.
- **DO NOT** apply more than 4 pints/Acre (1.0 lbs of active) in a single application.
- **DO NOT** make more than 4 applications per year when using reduced application rates.
- **DO NOT** make follow up applications within 8 weeks of previous application

**Important:** When applied as directed, the conifer species listed on this label have shown tolerance to OXYFLUORFEN 2EC. It is impossible, however, to evaluate this product on all varieties, biotypes and cultivars of listed species under all possible growing conditions. Until familiar with results under local growing conditions, the user must exercise reasonable judgement and caution with this product. Limit application of this product to a few plants in a small area to determine plant tolerance and extent of injury if such occurs, prior to initiating large-scale applications.

Douglas Fir	Pseudotsuga menziesii	
Fir	Fraser (Abies fraseri)	Noble (Abies procera)
	Grand (Abies grandis)	
Hemlock	Eastern hemlock (Tsuga canadens	ris)
Pine	Austrian (Pinus nigra)	Monterey (Pinus radiata)
	Eastern White (Pinus strobus)	Mugho (Pinus mugo)
	Himalayan (Pinus wallichiana)	Ponderosa (Pinus ponderosa)
	Jack (Pinus banksiana)	Scotch (Pinus sylvestris)
	Loblolly (Pinus taeda)	Shortleaf (Pinus echinata)
	Lodgepole (Pinus contorta)	Slash (Pinus elliottii)

	Longleaf (Pinus palustris)	Virginia (Pinus virginiana)
Spruce	Blue (Picea pungens)	Alberta (Picea abies)
	Dwarf (Picea glauca Conica)	Norway (Picea sitchensis)

## **CONIFER TRANSPLANTS AND CONTAINER STOCK**

(INCLUDES 2-0 SEEDLING AND CHRISTMAS TREE PLANTINGS)

Many container-grown conifers and conifer transplants are tolerant to preemergence and postemergence applications of OXYFLUORFEN 2EC. Applied postemergence, OXYFLUORFEN 2EC provides postemergence control of emerged weeds and preemergence residual control of many broadleaf weeds and grasses (see Key Weeds Controlled) at the beginning of this section.

Weed Control	Rate (pint/acre)	Specific Use Directions
Preemergence	4 – 8	Transplanted and Container Grown Conifers: For best results, make
Postemergence	lbs of active)	preemergence applications immediately after transplanting seedlings or to weed-free container stock. Make postemergence applications to weeds less than 4 inches in height. Two applications may be necessary, in fall-transplanted conifer fields, for year-long weed control. The addition of a non-ionic surfactant (0.25% v/v) labeled for application to growing crops, enhances the activity of OXYFLUORFEN 2EC on emerged weeds.

## **Crop-Specific Restrictions:**

- **DO NOT** apply more than 8 pints (2.0 lbs of active) of OXYFLUORFEN 2EC per acre in a single application.
- DO NOT apply more than 16 pints (4.0 lbs of active) per acre per year.
- DO NOT make more than 4 applications per acre per year when using reduced application rates.
- **DO NOT** make follow up applications within 8 weeks of previous application
- **DO NOT** make over-the-top applications during periods of active conifer growth. Apply only before bud break or after new terminal growth has hardened off.

In addition to those conifer species listed under the Conifer Seedbed section, the following conifer species have been shown to be tolerant to OXYFLUORFEN 2EC:

Arborvitae	Thuja occidentalis Thuja orientalis	
	,	
Juniper	Juniperus chinensis	
	Juniperus horizontalis	
	Juniperus procumbens	
	Juniperus sabina	
	Juniperus scopulorum	
Red cedar	Juniperus virginiana	
Western Hemlock	Tsuqa heterophylla	
Yew	Taxus species	

## **SELECTED FIELD-GROWN DECIDUOUS TREES**

Listed field-grown deciduous trees are tolerant only to directed spray applications of OXYFLUORFEN 2EC. OXYFLUORFEN 2EC provides both preemergence and postemergence control of listed broadleaf weeds and grasses.

Timing to Crop: Apply OXYFLUORFEN 2EC to established deciduous trees or after transplanting. For optimum weed control, applications must be made prior to weed germination. Apply only as a directed spray to soil beneath the trees.

Weed Control	Rate (pint/acre)	Specific Use Directions
Preemergence Early postemergence	(0.5 – 1.5 lbs of active)	OXYFLUORFEN 2EC may be applied to established deciduous trees or after transplanting as a single or split application. Apply as a directed spray to the soil surface. Use of spray shields to reduce exposure of foliage and bark is advised. The addition of a non-ionic surfactant (0.25% v/v) labeled for application to growing crops, will enhance herbicidal activity on emerged weeds.
		<b>Spot Application:</b> Spot treatments at specified rates may be used to control localized weed infestations. See use directions for Spot Application in the Application Methods and Cultural Practices section.

**Tank Mixing:** For broader spectrum control, OXYFLUORFEN 2EC may be tank mixed with other preemergence or postemergence herbicides registered for this use in deciduous trees. Refer to Mixing Directions section for Tank Mixing Precautions. 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.

## **Precautions:**

• For maximum crop safety, directed applications must be prior to budbreak in the spring or after trees have initiated dormancy in the fall. Avoid contact of spray or drift with foliage or stems with green bark. Application after bud swell may result in crop injury and is not advised. If a non-dormant application is required due to weed competition, apply only after foliage has fully expanded and hardened off. Use only directed sprays and spray shields to prevent spray contact with stems with green bark or foliage.

## **Crop-Specific Restrictions:**

- **DO NOT** apply OXYFLUORFEN 2EC to trees that have been weakened or are under stress from excessive fertilizer or soil salts, disease, nematodes, frost, wind injury, drought, flooding, previously applied pesticides, insects, or winter injury as severe injury may result.
- **DO NOT** apply more than 6 pints (1.5 lbs of active) of OXYFLUORFEN 2EC per acre per year.
- **DO NOT** apply more than 6 pints (1.5 lbs of active) per acre in a single application.
- DO NOT make more than 3 applications per acre per year when using reduced application rates.
- DO NOT make follow up applications within 8 weeks of previous application
- **DO NOT** apply to bearing tree fruit, nut and vine crops. For selected bearing tree fruit, nut and vine crops, refer to Tree Fruit/Nut/Vine section of this label for use directions.
- DO NOT graze or feed livestock forage cut from areas treated with OXYFLUORFEN 2EC.

OXYFLUORFEN 2EC may be applied to the following deciduous tree species:

Almond ††	Prunus spp.
Apple ††	Malus X domestica
Apricot ††	Prunus spp.
Ash, Green	Fraxinus pennsylvania
Ash, White	Fraxinus Americana
Birch, River	Betula nigra

Cherry ††	Prunus spp.
Chestnut ††	Castanea spp.
Crabapple ††	Malus spp.
Cottonwood	Populus spp.
Dogwood	Cornus florida
Eucalyptus	Eucalyptus viminalis
	Eucalyptus pulverulenta
	Eucalyptus camaldulensis
Filbert ††	Corylus spp.
Lilac	Syringa vulgaris
Locust, Black	Robinia pseudoacacia
Maple, Black †	Acer nigrum
Maple, Red †	Acer rubrum
Maple, Sugar †	Acer saccharum
Myrtle, Crepe	Lagerstroemia indica
Nectarine ††	Prunas spp.
Nut, Hickory ††	Carya spp.
Nut, Macadamia	Macadamia ternifola
Oak, Chestnut	Quercus prinus.
Oak, Cherrybark	Quercus pagoda
Oak, Nutt All	Quercus nuttallii
Oak, Pin	Quercus palustres
Oak, Red	Quercus rubra
Oak, Water	Quercus nigra
Oak, Willow	Quercus phellos
Olive, Russian	Elaeagnus angustifolia
Poplar	Populus spp.
Poplar, Tulip	Liriodendron tulipifera
Peach ††	Prunas persica
Pear ††	Pyrus spp.
Pecan <sup>††</sup>	Carya spp.
Pistachio ††	Pistacia vera
Plum ††	Prunas spp.
Prune ††	Prunas spp.
Redbud	Cercis canadensis
Sweetgum	Liquidambar styraciflua
Sycamore	Platanus occidentales
Walnut, Black ††	Juglans nigra

<sup>&</sup>lt;sup>†</sup> **DO NOT** apply to maple trees used for production of maple cap or maple syrup.

<sup>††</sup> Apply only to nonbearing trees. For bearing trees fruit, nut and vine crops, refer to specific use directions in the Tree fruit/Nut/Vine section of this label.

#### CORN

## FOR USE ONLY ON FIELD CORN IN CONJUNTION WITH THE USDA WITCHWEED ERADICATION PROGRAM IN NORTH CAROLINA AND SOUTH CAROLINA

Apply OXYFLUORFEN 2EC only as a directed spray from May through August for pre-emergence and postemergence control of witchweed (Striga asiatica). Corn must be a minimum of 24 inches tall. Examine witchweed infested fields during the early part of the growing year to determine uniformity of corn stand and grass weed pressure. If necessary, cultivate weed-infested fields prior to initial application of OXYFLUORFEN 2EC to allow for optimum soil coverage during the initial application. Inspect fields treated with OXYFLUORFEN 2EC regularly for any break through of witchweed. If break through occurs, make a second application as soon as possible after appearance of witchweed. Repeat treatment prior to bloom stage to prevent seed set.

Weed Control	Rate (pint/acre)	Specific Use Directions
Preemergence	2-3 (0.5 – 0.75 lbs of active)	<b>Initial Application</b> : Apply as a directed spray over the entire row surface at the rate of 2 pints (0.5 lbs of active) per acre. Use up to 3 pints (0.75 lbs of active) per acre in areas of heavy witchweed infestation. Use a minimum spray volume of 20 gallons per acre and a non-ionic surfactant at the time of 2 pints per 100 gallons of spray.
Postemergence	1 – 2 (0.25 - 0.5 lbs of active)	Repeat Applications: In case of witchweed breakthrough a repeat application may be made at 1 to 2 pints (0.25 - 0.5 lbs of active) per acre.

## **Crop-Specific Restrictions:**

- DO NOT apply more than 5 pints (1.25 lbs. of active) of OXYFLUORFEN 2EC per acre during the year.
- **DO NOT** apply more than 3 pints (0.75 lbs of active) per acre in a single application.
- DO NOT make more than 3 applications per acre per year when using reduced application rates.
- **DO NOT** make follow up application within 10 weeks of first application.
- **DO NOT** apply any application within 60 days of harvest.
- DO NOT use corn plants from a treated field for green chop, ensilage, forage, or fodder.
- **DO NOT** spray over the top of the corn, as this may result in severe corn injury. Spray must contact only the lower 3 to 8 inches of the corn stalk and any leaves in this zone. Spray droplets contacting the lower leaves will cause necrotic spotting or streaking of sprayed tissue.

#### COTTON

Application Methods and Equipment: OXYFLUORFEN 2EC may be applied as a post-direct spray to cotton a minimum of 6 to 8 inches tall. Care must be exercised to avoid spray contact with the cotton leaves. Use rigid precision ground spray equipment and spray shields to prevent spray contact with cotton foliage. Use branch lifters or shields, as necessary, to avoid contact of directed sprays with cotton plant.

Accurate, placement of spray nozzles is essential for uniform coverage of weeds and to minimize injury to cotton plants. Use a minimum broadcast spray volume of 20 gallons per acre and operate the sprayer at the minimum spray pressure specified by the spray nozzle manufacturer. OXYFLUORFEN 2EC may be applied as a post-direct spray with only 2 flat fan nozzles per row (1 nozzle on each side of the row). For optimum coverage, use 4 flat fan nozzles per row (2 nozzles on each side of the row). Point forward and downward the two forward nozzles while the rear nozzles are pointed to the rear and downward. With either sprayer setup, adjust the nozzles carefully to cover the weed foliage with minimum contact to cotton plants. OXYFLUORFEN 2EC may also be applied as a band application. **DO NOT** use hollow cone nozzles.

**Tank Mixing:** For control of additional broadleaf and grass weeds, OXYFLUORFEN 2EC may be applied as a postemergence directed spray in tank mix combination with other herbicides registered for postemergence use in cotton (see Tank Mixing Precautions under Mixing Directions). 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.

Weed Control	Rate (pint/acre)	Specific Use Directions
Postemergence	lbs of active)	Apply as a post-directed spray. For optimum control, use the 2 pints (0.5 lbs of active) per acre rate on actively growing weed seedlings with no more than 4 true leaves (not counting cotyledon leaves). Effective control of succulent weeds at the 2- to 3-leaf stage can usually be obtained at the 1 pint (0.25 lbs of active) per acre rate. See Mixing Directions for surfactant specification.  Where available, irrigation may be applied prior to application of OXYFLUORFEN 2EC to encourage maximum weed emergence. Irrigation following application will improve preemergence activity of OXYFLUORFEN 2EC against nightshade and groundcherry species.

#### Precautions:

• Exercise care to avoid spray contact with cotton leaves. Leaves accidentally sprayed will exhibit necrotic (dead) spots and may be dropped from the plant. Crop injury may be enhanced if application is made when excessive soil moisture is present or rainfall occurs immediately after application, however, cotton will outgrow this condition and develop normally.

## **Crop-Specific Restrictions:**

## Western Cotton (AZ and CA):

- DO NOT apply more than 2 pints (0.5 lb. of active) of OXYFLUORFEN 2EC per acre in a single application, or more than a total of 4 pints (1 .0 lb. active) of OXYFLUORFEN 2EC broadcast per acre per year as a result of multiple applications.
- DO NOT make follow up applications within 10 weeks of previous application.
- **DO NOT** apply within 75 days of harvest of Western Cotton.
- DO NOT apply to cotton less than 6 inches tall or severe crop injury will result

## Southern Cotton (All other states):

- DO NOT apply more than 2 pints (0.5 lb. active) of OXYFLUORFEN 2EC per acre of per year as a result of a single application or multiple applications.
- **DO NOT** apply more than 2 pints (0.5 lbs of active) per acre in a single application.
- DO NOT make more than 2 applications per acre per year when using reduced application rates.
- DO NOT make follow up applications within 10 weeks of previous application.

- **DO NOT** apply within 90 days of harvest of Southern Cotton.
- DO NOT apply to cotton less than 6 inches tall or severe crop injury will result.

#### Key Weeds Controlled:

Postemergence			
cocklebur, common croton, tropic groundcherry, cutleaf groundcherry, Wright jimsonweed	lambsquarter, common morningglory, annual (up to 6 leaf) nightshade, American black nightshade, black	nightshade, hairy pigweed, redroot poinsettia, wild <sup>†</sup> purslane, common sesbania, hemp	sicklepod †† sida, prickly (teaweed) † smartweed, Pennsylvania velvetleaf

<sup>†</sup> Multiple applications may be required for acceptable control.

#### **COTTONWOOD**

Weed Control	Rate (pint/acre)	Specific Use Directions
Preemergence Postemergence	(1.0 – 1.5 lbs of active)	OXYFLUORFEN 2EC may be applied as a single or split application. Apply as a directed spray to soil at the base of cottonwood trees.  Use the higher rate in the rate range for extended preemergence weed control or for Postemergence control of weeds up to the 6 leaf stage.  The addition of a non-ionic surfactant at 2 pints per 100 gallons of spray will enhance the Postemergence activity of OXYFLUORFEN 2EC on emerged weeds.

## Precautions:

• Apply OXYFLUORFEN 2EC immediately after transplant only to dormant healthy cottonwood stock.

## **Crop-Specific Restrictions:**

- DO NOT apply more than 6 pints (1.5 lbs. of active) per acre of OXYFLUORFEN 2EC in a single application.
- **DO NOT** apply more than 18 pints (4.5 lbs. active) per acre per year.
- DO NOT make more than 4 applications per acre per year when using reduced application rates.
- DO NOT make follow up applications within 8 weeks of previous application
- In established stands, DO NOT allow sprays of OXYFLUORFEN 2EC to contact cottonwood foliage. In newly
  established cottonwood plantings, use spray shields, if necessary, to prevent exposure of green bark and
  foliage.

groundsel, common m	mustard, hedge
knotweed, prostrate s	shepherdspurse
lambsquarter	smartweed, Pennsylvania

<sup>&</sup>lt;sup>††</sup> Post-direct applications of OXYFLUORFEN 2EC will control or suppress seedlings not exceeding the one true leaf stage.

#### **EUCALYPTUS**

Apply OXYFLUORFEN 2EC for preemergence and postemergence control of listed broadleaf weeds in established eucalyptus plantings.

Weed Control	Rate (pint/acre)	Specific Use Directions
Preemergence Postemergence	4 – 6 (1.0 – 1.5 Ibs of active)	Directed Spray: OXYFLUORFEN 2EC may be applied as a single or split application. Apply as a directed spray to soil at the base of eucalyptus trees. Use the higher rate in the rate range for extended preemergence weed control or for postemergence control of weeds up to the 6 leaf stage.  The addition of a non-ionic surfactant at the rate of 2 pints per 100 gallons of spray will enhance the postemergence activity of OXYFLUORFEN 2EC on emerged weeds.  Over-the-Top Application: In new plantings, apply OXYFLUORFEN 2EC just before or immediately after transplanting eucalyptus seedlings that are in a dormant condition (i.e., leaves may be present, but terminal growth has hardened off and terminal buds have formed). In established plantings, OXYFLUORFEN 2EC may be applied as an over-the-top spray when plants are
December		in a dormant condition.

#### Precautions:

- At transplant, apply OXYFLUORFEN 2EC only to healthy "dormant" healthy eucalyptus stock. In established plantings, use spray shields, if needed, to prevent exposure of foliage and bark of small and/or actively growing plants.
- To avoid phytotoxicity, make over-the-top applications only to eucalyptus trees in a dormant condition.

## **Crop-Specific Restrictions:**

- DO NOT apply more than 6 pints (1.5 lbs. active) of OXYFLUORFEN 2EC per acre in a single application.
- **DO NOT** apply more than 18 pints (4.5 lbs. active) per acre per year.
- DO NOT make more than 4 applications per acre per year when using reduced application rates.
- **DO NOT** make follow up applications within 8 weeks of previous application
- DO NOT make over-the-top applications after bud break and resumption of active growth.

Preemergence		Postemergence	
burclover	pigweed, redroot	cheeseweed (malva)	minerslettuce
cheeseweed (malva)	purslane, common	fiddleneck, coast	nettle, burning
fiddleneck, coast	redmaids	filaree, broadleaf †	pigweed, redroot
filaree, broadleaf	rocket, London	filaree, redstem †	redmaids
filaree, redstem	shepherdspurse	filaree, whitestem †	shepherdspurse
filaree, whitestem	sowthistle, annual	groundsel, common	sowthistle, annual
groundsel, common	spurge, prostrate	henbit	
lettuce, prickly	spurge, spotted		

<sup>&</sup>lt;sup>†</sup> At the 6-pint rate, OXYFLUORFEN 2EC will provide control of filaree up to the 6-leaf stage.

## **USE ON FALLOW BEDS**

(Not for use prior to planting soybeans in California)

Used alone or in tank mix combination with glyphosate, OXYFLUORFEN 2EC provides preemergence and/or postemergence control of winter annual broadleaf weeds on land to be planted to crops.

Prior to planting, treated fallow beds must be thoroughly tilled (incorporated) to a depth of at least 2.5 inches. OXYFLUORFEN 2EC is no longer herbicidally effective once the active layer in the soil surface is disrupted by soil incorporation.

**Aerial Application**: OXYFLUORFEN 2EC may be aerially applied for weed control in fallow beds. Follow requirements for Aerial Application in the Product Use Information section of this label.

Minimum Treatment to Planting Intervals for listed crops:

	Minimum Treatment-to-Planting Interval		
Direct Seeded Crops	OXYFLUORFEN 2EC	OXYFLUORFEN 2EC	
	(up to 1 pint/acre)	(>1 to 2 pints/acre)	
carrot	90 days	90 days	
cotton	7 days	7days	
potato	60 days	60 days	
sugar beet	60 days	90 days	
other root/tuber crops	90 days	90 days	
onions	180 days	180 days	
other bulb vegetables	180 days	180 days	
cabbage	90 days	90 days	
cauliflower	90 days	90 days	
other brassica crops	120 days	120 days	
lettuce	90 days	120 days	
other leafy vegetables	120 days	120 days	
(except brassica crops)	90 days	120 days	
pepper	<del>-</del>		
tomato	60 days	120 days	
other fruiting vegetables	120 days	120 days	
cantaloupe	60 days	90 days	
squash	90 days	120 days	
watermelon	60 days	60 days	
other cucurbits	90 days	120 days	
dry beans	60 days	60 days	
Peanut	60 days	60 days	
other legume vegetables	60 days	60 days	
safflower	60 days	60 days	
Soybeans (Except California)	7days	7 days	
cereal grains: Including barley, buckwheat,	10 months	10 months	
corn, proso millet, pearl millet, oats,			
popcorn, rice, rye, sorghum, triticale,			
wheat, and wild rice			
cotton and soybean		beds to be planted to cotton or	
	soyb	eans)	

	Minimum Treatmen	Minimum Treatment-to-planting Interval		
Transplanted Crops	OXYFLUORFEN 2EC (up to 1 pint/acre)	OXYFLUORFEN 2EC (>1 to 2 pints/acre)		
celery	30 days	30 days		
conifer	0 days	0 days		
garlic	0 days	30 days		
grape/kiwi	0 days	0 days		
onion	0 days	30 days		
pepper	30 days	30 days		
strawberries	30 days	30 days		
tomato	30 days	30 days		
Tree fruit/nut/citrus	0 days	0 days		

Weed Control	Rate (pint/acre)	Specific Use Directions
Preemergence	1 – 2	Use 20 or more gallons of spray volume per acre and increase spray
Postemergence	(0.25 - 0.5	volume for dense weed growth.
	lbs of	Use the 1 pint (0.25 lbs of active) per acre rate for up to 4 weeks of
	active)	preemergence control and postemergence control of susceptible weeds up to 4-leaf stage.
		Use the 2 pint (0.5 lbs of active) per acre rate for up to 8 weeks of
		preemergence control and postemergence control of susceptible weeds up to 6-leaf stage. Best preemergence control is achieved when irrigation or rainfall occurs within 3 or 4 weeks after application.
		A tank mix with glyphosate is advised if the treatment area contains dense
		weed populations, oversized weed seedlings, volunteer grains, annual
		grasses or under unfavorable environmental conditions.
		Outside of California: For enhanced contact activity
		(burndown/suppression) tank mix 6.5 fl oz (0.1 lbs of active) of
		OXYFLUORFEN 2EC with the labeled rate of either glyphosate or paraquat.
		Apply at the application rate and weed growth stages specified in the
		respective tank mix product label. 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.

## Precautions:

- Failure to achieve thorough and complete incorporation, or to follow the specified treatment-planting interval, may result in stand reduction and/or vigor reduction of the planted crop.
- Crop injury may be enhanced if newly seeded crops or transplants are under stress due to drought, flooding, excessive fertilizer or soil salts, low soil temperatures, wind injury, hail, frost damage, injury from previously applied pesticides, or injury due to insects or diseases.
- Exercise extreme care to avoid herbicide contact with any desirable dormant or non-dormant crop, plant, tree or vegetation as severe injury may result.

## **Crop-Specific Restrictions:**

- **DO NOT** apply more than 2 pints (0.5 lbs. active) of OXYFLUORFEN 2EC per acre per year.
- **DO NOT** apply more than 2 pints (0.5 lb. active) of OXYFLUORFEN 2EC broadcast per acre in a single application
- **DO NOT** make more than 2 applications per acre per year when using reduced application rates.
- **DO NOT** make a follow up application within 10 weeks of first application

#### Key Weeds Controlled:

OXYFLUORFEN 2EC provides preemergence and postemergence control of the following weeds on fallow beds: †

buttercup, smallflower	mustard species
cheeseweed (malva)	nettle, burning
eveningprimrose, cutleaf ††	oxalis
fiddleneck, coast	pigweed, redroot
filaree, broadleaf	purslane, common
filaree, redstem	redmaids
geranium, Carolina	rocket, London
groundcherry, cutleaf	shepherdspurse
groundsel, common	sida, prickly
henbit	sowthistle, annual
ladysthumb	velvetleaf (wild common)
minerslettuce	

<sup>&</sup>lt;sup>†</sup> Thorough spray coverage is essential to maximize the postemergence activity of OXYFLUORFEN 2EC. For postemergence control when applied by air, a tank mixture of OXYFLUORFEN 2EC with either glyphosate or paraquat is specified.

## **GARBANZO BEANS**

(For Use Only in Arizona and California)

Weed Control	Rate (pint/acre)	Specific Use Directions
Preemergence	1	Apply after planting but prior to weed or crop emergence as a single
	(0.25 lbs of	broadcast application using a spray volume of 20 or more gallons of water
	active)	per acre.

#### Precautions:

Garbanzo beans are resistant to preemergence application of OXYFLUORFEN 2EC, however, under certain
conditions, severe but temporary crop injury may occur. A heavy splashing rain shortly after crop emergence
or wet soil conditions during early growth stages can cause leaf cupping, crinkling, stunting or defoliation of
the garbanzo seedlings. Injury, when it occurs, it is usually limited to the first few leaves that develop after
plants emerge from the soil. Delays in crop development and/or maturity may result, but Garbanzo beans do
recover with little to no impact on yield.

## **Crop-Specific Restrictions:**

- **DO NOT** apply more than 1 pint (0.25 lbs. active) per acre of OXYFLUORFEN 2EC in a single application.
- **DO NOT** apply more than 1 pint (0.25 lbs. active) of OXYFLUORFEN 2EC per acre per year.
- Make only one application per year.
- DO NOT apply within 30 days of harvest.
- DO NOT use bean vines for livestock feed or hay.

Preemergence	
roundsel, common	
nallow, little	
ocket, London	
Shepherdspurse	

<sup>††</sup> Requires maximum rate and/or multiple applications for effective control.

## **GARLIC**

**Cultural Considerations**: For optimum preemergence weed control, the soil surface must be smooth and free of excessive trash (clippings, plant residues, etc.). Following application, treated beds must be left undisturbed during the time period for which weed control is desired. Cultural practices that result in soil disturbance or redistribution or untreated soil can result in reduced weed control.

Direct Seeded Garli	Direct Seeded Garlic (Postemergence Application):		
Weed Control	Rate (per acre)	Specific Use Directions	
Postemergence	2 - 4 fl oz (0.003 – 0.006 lbs of active)	Northeastern States Including Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Rhode Island and Vermont:  Apply OXYFLUORFEN 2EC at 2 to 4 fl oz (0.003 – 0.006 lbs of active) per acre to seeded garlic that has at least 3 true leaves using ground equipment. Multiple treatments at 2 to 4 fl oz per acre may be applied up to a maximum of 2 pints (32 fl oz) (0.5 lbs of active) per acre per year. For optimum postemergence control, apply when susceptible weeds are in the 2 to 4-leaf stage and actively growing. Application at later than 4-leaf growth stage may result in reduced weed control.	
Postemergence	0.5 - 1 pint (0.125 - 0.25 lbs of active)	Western States Including Arizona, Colorado, Idaho, Nevada, New Mexico, Oregon, Texas, Utah and Washington: Apply OXYFLUORFEN 2EC at 0.5 to 1 pint (0.125-0.25 lbs of active) per acre to seeded garlic that has at least 2 true leaves using ground equipment.  Multiple treatments at 0.5 to 1 pint (0.125-0.25 lbs of active) per acre may be applied up to a maximum of 2.0 pints (0.5 lbs of active) per acre per year. For optimum postemergence weed control, apply when susceptible weeds are in the 2 to 4-leaf stage and actively growing. Application at later than 4-leaf growth stage may result in reduced weed control.	
Postemergence	0.5 pint (0.125 lbs of active)	All Other States: Apply OXYFLUORFEN 2EC at 0.5 pint (0.125 lbs of active) per acre to seeded garlic that has at least 2 true leaves using ground equipment. Multiple treatments at 0.5 pint (0.125 lbs of active) per acre may be applied up to a maximum of 2 pints (0.5 lbs of active) per acre per year. For optimum postemergence control, apply when susceptible weeds are in the 2 to 4-leaf stage and actively growing. Application at later than 4-leaf growth stage may result in reduced weed control.	

Direct Seeded Garlic (California Only)			
Weed Control	Rate (per/acre)	Specific Use Directions	
Preemergence Postemergence	1 pint (0.25 lbs of active)	Application after planting but Prior to Garlic Emergence: Apply OXYFLUORFEN 2EC after planting, but prior to crop emergence, for preemergence control of listed broadleaf and grass weeds using ground, air or sprinkler irrigation (chemigation). Aerial Application: Apply in a minimum spray volume of 10 gallons per acre. Follow Aerial Application instructions and precautions in the Product Use Information section of this label.	
		Postemergence and Directed Application: Apply OXYFLUORFEN 2EC as a directed or over-the-top spray to garlic that is at least 12 inches tall. Accurate, uniform placement of directed postemergence sprays is essential for effective weed control and to minimize injury to garlic. Use low-pressure sprays and a minimum spray volume of 20 gallons per acre. Adjust nozzles for minimum spray contact with garlic plants, directing the spray to the soil at the base of garlic plants and adjacent bed top and furrow area. For optimum postemergence control, apply when susceptible weeds are in the 2 to 4-leaf stage and actively growing. Application at later than 4-leaf growth stage may result in reduced weed control.	
		Sprinkler Irrigation (Portable Lateral or Solid Set) Preemergence or Postemergence: Apply OXYFLUORFEN 2EC at the specified broadcast application rate using sufficient irrigation to wet soil to a depth of 2 inches. Apply after planting but prior to garlic emergence or postemergence when garlic is at least 12 inches tall. Follow the application directions and precautions for "Sprinkler Chemigation" given in the Chemigation section of this label.	

## Precautions:

 Garlic Response to Preemergence Applications of OXYFLUORFEN 2EC: Following a preemergence application of OXYFLUORFEN 2EC, a chlorotic band around some of the leaves may be observed after the first irrigation (or rainfall) following garlic emergence.

Transplanted Garlic: Postemergence Application Immediately after Planting				
Weed Control	Rate (per/acre)	Specific Use Directions		
Postemergence	up to 2 pint (0.5 lbs of active)	All States Except Northeastern States: Transplanted garlic is most tolerant of a postemergence application immediately after transplanting. An application of up to 2 pints (0.5 lbs of active) per acre may be made within two days after transplanting. If less than 2 pints (0.5 lbs of active) per acre is applied, a second application can be made two weeks or more after transplanting. DO NOT exceed the maximum use rate of 2 pints (0.5 lbs of active) per acre of OXYFLUORFEN 2EC per year as a result of multiple applications.		
Postemergence	2 - 4 fl oz (0.03 – 0.06 lbs of active)	Northeastern States, including Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Rhode Island and Vermont: Multiple treatments at 2 to 4 fl oz per acre (0.03- 0.06 lbs of active) may be applied up to a maximum of 2 pints (32 fl oz) per acre (0.5 lbs of active) per year.		

## Key Weeds Controlled:

canarygrass (annual)	puncturevine
eveningprimrose, cutleaf	purslane, common †
groundsel, common	rocket, London
mallow, little (malva)	sage, lanceleaf
nightshade, black	shepherdspurse †
pigweed, prostrate †	sowthistle, annual
pigweed, redroot †	

<sup>&</sup>lt;sup>†</sup> Key weeds controlled at specified rates in Northeastern States.

#### Garlic - Crop-Specific Precaution (Postemergence Application):

Postemergence applications of OXYFLUORFEN 2EC may cause chlorotic leaf banding, necrotic lesions, or stunting of the garlic plants. Symptoms may be more severe if garlic emerged under cool, wet, overcast, or foggy weather. These conditions are temporary and will not affect the vigor or development of garlic plants.

## Garlic - Crop-Specific Restrictions (Applicable to All Methods of Application):

- In all states except Northeastern states, DO NOT apply until direct seeded garlic plants have two (2) fully developed true leaves. In the Northeastern states, DO NOT apply until direct seeded garlic plants have three (3) fully developed true leaves. Application made prior to the specified growth stage may result in serious crop injury.
- **DO NOT** apply more than 2 pints (0.5 lbs of active) per acre in a single application.
- **DO NOT** apply more than a total of 2 pints (0.5 lbs. active) per acre of OXYFLUORFEN 2EC per year as a result of multiple applications.
- **DO NOT** make more than 2 applications per acre per year when using reduced application rates.
- DO NOT make follow up applications within 8 weeks of previous application
- DO NOT apply within 60 days of harvest.
- In direct seeded garlic (except in California), DO NOT apply OXYFLUORFEN 2EC as a preemergence treatment.
- Use only on dry bulb garlic.
- **DO NOT** apply to garlic grown for seed.
- For weed control in Garlic, **DO NOT** mix OXYFLUORFEN 2EC with oils, surfactants, liquid fertilizers.
- DO NOT apply to garlic plants that are under stress due to drought, flooding, excessive fertilizer or soil
  salts, storage conditions, wind injury, hail, frost damage, injury from previously applied pesticides, or injury
  due to insects, nematodes or diseases.

## **GRAPES (Non-Dormant Application)**

(California Only)

OXYFLUORFEN 2EC may be applied as a directed spray or, for supplemental preemergence weed control, through low-volume sprinkler (micro sprinkler) or drip irrigation systems for control or suppression of listed broadleaf weeds in non-dormant grapes (raisin and wine grapes only). OXYFLUORFEN 2EC may also be applied to all grapes (raisin, table, and wine) as a dormant season application. Refer to Treefruit/Nut/Vine Crops (Dormant Application) section above for use directions for dormant season application to grapes.

Weed Control	Rate (pint/acre)	Specific Use Directions
Preemergence	2	OXYFLUORFEN 2EC may be applied preemergence or
	(0.5 lbs of	postemergence to weeds either as a directed spray in a minimum
	active)	spray volume of 20 gallons per acre or through low-volume sprinkler
Postemergence	1 – 2	(micro sprinkler) or drip irrigation systems. Repeat applications may
	(0.25 - 0.5	be required. Applications may be made from completion of bloom up
	lbs of active)	to 14 days before to harvest.
		When applied as a postemergence directed spray, add 1 quart 80%
		active nonionic surfactant cleared for application to growing crops per
		100 gallons of spray. Direct sprays to the soil and the base of vines.

## Tank Mixing:

• When applied as a directed postemergence spray using ground equipment, OXYFLUORFEN 2EC may be applied in tank mix with paraquat or glyphosate in a minimum spray volume of 10 gallons per acre. Refer to Mixing Directions section for Tank Mixing Precautions. Follow applicable use directions, precautions, and limitations on the respective product labels. In interpreting the labels of tank mixed products, the most restrictive label limitations must apply. It is the pesticide user's responsibility to ensure that all products are registered for 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.

Chemigation: Follow chemigation instructions in Product Use Information section.

• Low Volume Sprinkler (Microsprinkler) and Drip (Trickle) Irrigation: Apply only through low-volume sprinkler or drip systems designed to uniformly distribute irrigation water beneath the canopy. Meter OXYFLUORFEN 2EC at a continuous rate during the middle 1/3 of the irrigation period and discontinue application during the final 1/3 of the irrigation period to ensure proper flushing of the irrigation system. Use of OXYFLUORFEN 2EC through low-volume sprinklers or drip emitters helps to reduce the "ring effect" of weed escapes in areas around sprinklers or emitters where previously applied broadcast or directed treatments begin to break down.

#### Precautions:

• Crop Tolerance: The use of OXYFLUORFEN 2EC may result in varying degrees of injury to non-dormant grapes. Grape foliage will typically exhibit injury symptoms from direct or indirect (spray drift, soil contact) exposure. This injury may result in necrosis, reddening, cupping or crinkling of grape leaves. The grape plant will continue to grow normally. Grape leaves that are immature or expanding at the time of contact with OXYFLUORFEN 2EC are the most susceptible to foliage injury. Grapes may exhibit some small blemishes (spots or flicks) on the fruit.

#### **Crop-Specific Use Restrictions:**

- **DO NOT** apply more than 2 pints (0.5 lbs of active) per acre in a single application.
- **DO NOT** apply more than 6 pints (1.5 lbs. of active) per acre per year as a result of multiple applications in any given area (broadcast, banded, or within the wetted area of the low-volume sprinkler or drip irrigation system).
- OXYFLUORFEN 2EC is phytotoxic to plant foliage. Avoid drift to all other crops and nontarget areas. DO
   NOT apply when weather conditions favor drift.
- **DO NOT** make more than 4 applications per acre per year when using reduced application rates.
- **DO NOT** make follow up applications within 8 weeks of previous application
- DO NOT apply within 14 days of harvest.

- **DO NOT** initiate application of OXYFLUORFEN 2EC in non-dormant grapes until the completion of the bloom period.
- **DO NOT** apply to grapes established less than 3 years unless vines are either on a trellis wire a minimum of 3 feet above the soil surface, or protected by grow tubes.
- OXYFLUORFEN 2EC must be applied only by ground application equipment of through low-volume sprinkler (micro sprinkler) or drip (trickle) irrigation systems.
- Apply OXYFLUORFEN 2EC as a non-dormant application to wine grapes or raisin grapes only.

## Key Weeds Controlled or Suppressed:

Preem	ergence	Postemergence	
burclover	mustard, black	cheeseweed, malva	nettle, burning
cheeseweed, malva	nettle, burning	fiddleneck, coast	nightshade, black
fiddleneck, coast	nightshade, black	groundsel, common	pigweed, redroot
groundsel, common	pigweed, redroot	henbit	purslane, common
henbit	purslane, common	minerslettuce	redmaids
knotweed, prostrate	redmaids	morningglory species,	rocket, London
lambsquarters, common	rocket, London	annual	sowthistle, annual
minerslettuce	sowthistle, annual	mustard, black	

#### SUCKER CONTROL IN NON-DORMANT GRAPES

(Washington and Oregon Only)
(Grapes for Wine and Processing Only)

Application Timing for Sucker Control	Rate (pint/acre)	Specific Use Directions
Grape suckers less than 12 inches in length.	lbs of active)	Apply OXYFLUORFEN 2EC in a three-foot band directed towards to newly emerging suckers at the base of the grapevine. The highest rate and/or a second application may be required to achieve an acceptable level of control/suppression of grape suckers. Avoid spray contact on flowers, grape clusters, or fruit. Use mounted nozzles to deliver the spray solution. Thorough spray coverage of sucker growth is essential for optimal activity. Use a spray volume of 50 or more gallons per acre (broadcast basis).

**Tank Mixing:** For enhanced postemergence sucker activity, a tank mixture of OXYFLUORFEN 2EC with either glufosinate or paraquat can be used. Apply at the specified rates and growth stages in a manner describe on the respective labels. Refer to Mixing Directions section for Tank Mixing Precautions. Follow applicable use directions, precautions, and limitations on the respective product labels. In interpreting the labels of tank mixed products, the most restrictive label limitations must apply. It is the pesticide user's responsibility to ensure that all products are registered for 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.

#### Precautions:

• The use of OXYFLUORFEN 2EC may result in varying degrees of injury to non-dormant grapes. Grape foliage will typically exhibit injury symptoms from direct or indirect (spray drift or soil contact) exposure. This injury may result in necrosis, reddening, cupping or crinkling of grape leaves. The grape plant will continue to grow normally. Leaves that are immature or expanding at the time of contact with OXYFLUORFEN 2EC are the most susceptible to injury. Grape fruit may exhibit some small blemishes (spots or flecks) on the fruit.

## **Crop-Specific Restrictions:**

- **DO NOT** apply more than 2 pints (0.5 lb. active) of OXYFLUORFEN 2EC broadcast per acre in a single application
- **DO NOT** apply more than (dormant and non-dormant) 6 pints (1.5 lbs. of active) per acre per year as a result of multiple applications in any give area (broadcast or banded).
- DO NOT make more than 4 applications per acre per year when using reduced application rates.
- DO NOT make follow up applications within 8 weeks of previous application
- OXYFLUORFEN 2EC must be applied only by ground application equipment.
- Apply OXYFLUORFEN 2EC as a non-dormant application for sucker control only to wine or processed grapes.
- DO NOT apply OXYFLUORFEN 2EC within 60 days of harvest.

## **GRASSES GROWN FOR SEED (Established Perennial)**

For use Only in Oregon and Washington and Idaho

Weed Control	Rate (Pint/acre)	Specific Use Directions
Late preemergence to Early postemergence Fine fescues (Chewings, creeping	0.5 (0.125 lbs of active)	Make a single application of OXYFLUORFEN 2EC at 0.5 pints (0.125 lb. ai) per acre per year. The application must be applied before the weed seedlings to be controlled exceed the two-leaf growth stage (Use Period: September 1 to December 15).
red, and hard types)  Late preemergence to Early postemergence  Kentucky bluegrass, tall fescue, orchardgrass, bentgrass, perennial ryegrass	0.5 – 1.5 (0.125 – 0.375 lbs of active)	Apply as a broadcast application in a minimum spray volume of 20 gallons of water per acre. Use conventional ground spray equipment with flat fan spray nozzles at a minimum spray pressure of 30 psi. Spray equipment must be calibrated prior to application. Select an application rate based on soil conditions, weed spectrum, weed stage of growth and/or desired period of residual weed control. The maximum rate of 1.5 pints (0.375 lbs of active) of OXYFLUORFEN 2EC may be split, however, the initial application must be applied before the weed (or volunteer grass) seedlings to be controlled exceed the 2-leaf growth stage and no later than December 15. The final application must be completed prior to January 15. A maximum
		of 1.5 pints (0.375 lbs of active) of OXYFLUORFEN 2EC (0.375 lb. active) per acre may be applied per year.  Early treatment is important for control of seedling grasses. Apply OXYFLUORFEN 2EC at the onset of grass seed germination during the initial fall rains or fall sprinkler irrigation (late preemergence). Application at the 1-leaf growth stage (early postemergence) may provide somewhat better control of volunteer crop seedlings than application at the 2-leaf stage. Ample soil moisture soon after application is required for optimum performance against seedling grasses.
		OXYFLUORFEN 2EC will not control established perennial grasses or seedlings or seedlings of most annual and perennial grasses beyond the six-leaf stage of growth. Applications to seedling grass weeds between the 2- and 6-leaf stage may result in partial control but vary with weed species.  Single applications made to seedlings between the 2- and 6-leaf growth stages will cause injury and stunting, but re-growth will usually
Procautions		occur. If seedlings have not died within 3 to 4 weeks after treatment and healthy green regrowth is visible, a second application may be needed.  Surfactant - For improved control of emerged weed seedlings, an 80% active nonionic surfactant cleared for application to growing crops may be added at a rate of 0.12% to 0.5% spray volume (1 to 4 pints/100/gal.)

## Precautions:

Crop Tolerance - The application of OXYFLUORFEN 2EC to established perennial grass will result in a chlorosis (yellowing) within two weeks after treatment. These symptoms may be present for up to three months following application. The application of OXYFLUORFEN 2EC may also result in a substantial reduction in vegetative growth of perennial grasses during the winter. Leaf chlorosis and reduction of vegetative growth is a typical and normal response, however, the seed yield from healthy, vigorous perennial grasses has not been

affected by fall application of OXYFLUORFEN 2EC. It is accepted by the grower that conditions under which seed yield may be reduced are not fully understood. Grazing may also magnify crop injury arid reduce the seed yield.

Crop tolerance to OXYFLUORFEN 2EC can be improved by limiting the amount of leaf tissue present on established perennial grasses at time of application by such methods as propane flaming, intensive mechanical clipping (crew cutting), or livestock grazing prior to application.

Tank mixtures and/or sequential applications of OXYFLUORFEN 2EC with other herbicide products registered for use on grasses grown for seed may result in increased injury or stand loss. If a tank mixture is applied, applications must be made only to healthy, vigorous stands of perennial grasses. The decision to apply a tank mixture containing OXYFLUORFEN 2EC is at the sole discretion of the grower and at the grower's risk.

## **Crop-Specific Restrictions:**

- Chemigation: DO NOT apply this product through any type of irrigation system.
- DO NOT exceed maximum spray pressure of 60 psi.
- OXYFLUORFEN 2EC must be applied using ground equipment only.
- **DO NOT** apply more than 1.5 pints (0.375 lb. active) of OXYFLUORFEN 2EC broadcast per acre in a single application
- DO NOT apply more than one application per year to fine fescues.
- DO NOT make more than two applications per year to other grass varieties when using reduced application rates.
- **DO NOT** apply more than 1.5 pints (0.375 lbs of active) of OXYFLUORFEN 2EC (0.375 lb. active) per acre per year.
- **DO NOT** apply OXYFLUORFEN 2EC within 150 days of harvesting grass hay in Oregon or within 365 days of harvesting grass hay in Idaho and Washington.
- DO NOT graze fields that have been treated with OXYFLUORFEN 2EC within 150 days of treatment in Oregon or within 365 days of treatment in Idaho and Washington as illegal residues may be present in the vegetative foliage.

Weeds Suppressed and/or Controlled

OXYFLUORFEN 2EC will control or suppress the following weeds and volunteer crops when applied between the onset of germination and the two-leaf seedling growth stage:

Common Name	Scientific Name
Bentgrass	Agrostis species
Bluegrass, Annual	Poa annua
Bluegrass, Kentucky	Poa pratensis
Bluegrass, Roughstalk	Poa trivialis
Brome, California (mountain) †	Bromus carinatus
Fescue, Fine (creeping red and Chewings)	Festuca rubra
Fescue, Hard	Festuca longifolia
Fescue, Rattail	Vulpia myuros
Fescue, Tall	Festicua arundinacea
Orchardgrass	Dactylis Glomerata
Ryegrass, Italian	Lolium multiflorum
Ryegrass, Perennial <sup>†</sup>	Lolium perenne

<sup>&</sup>lt;sup>†</sup> These species are suppressed by not fully controlled by OXYFLUORFEN 2EC

#### **GRASSES GROWN FOR SEED**

(Fall Seeded New Plantings of Perennial Ryegrass and Tall Fescue)
For Use only in Oregon

Weed Control	Rate (fl. oz./Acre)	Specific Use Directions
Early postemergence	2 – 3 fl. oz. (0.03 – 0.05 lbs of active)	Use OXYFLUORFEN 2EC for early postemergence suppression/control of various annual broadleaf weed seedlings in fall seeded perennial ryegrass or tall fescue that has at least 1 to 2 tillers. Applications to seedling plants that have not yet tillered, may result in severe crop injury or stand loss (plant death).
		Apply a single application of OXYFLUORFEN 2EC either alone or tank mixed with ethofumesate. Some temporary crop injury may occur, but is typically only a transient effect and not adversely impact yield. Control from the OXYFLUORFEN 2EC is primarily directed at emerged seedling broadleaf weeds including speedwell and groundsel, but control or suppression of other species is possible if tank mixed with ethofumesate
		Apply as a broadcast application in a minimum spray volume of 20 gallons of water per acre. Use conventional ground spray equipment with flat fan spray nozzles at the manufacturer's specified spray pressure. Calibrate spray equipment before each use.
		<b>Use of Surfactant</b> : An 80 percent active nonionic surfactant cleared for application to growing crops may be added at a rate of 0.12 to 0.5 percent spray volume for improved control of emerged seedlings.

#### Precautions:

- Crop Tolerance The application of OXYFLUORFEN 2EC to fall seeded perennial ryegrass and tall fescue (that have at least 1 to 2 tillers) will result in a chlorosis (yellowing) of the foliage within two weeks after treatment. Some symptoms may be present for up to three months following application. The use of OXYFLUORFEN 2EC may also result in a substantial reduction in vegetative growth by perennial grasses during the winter. Leaf chlorosis and reduction of vegetative growth is a typical and normal response and seed yield of healthy, vigorous perennial grasses is typically not affected by fall application of OXYFLUORFEN 2EC. It is accepted by the grower that conditions under which seed yield may be reduced are not fully understood and that a reduction in seed yield may occur. Grazing may also magnify crop injury and reduce the seed yield.
- Overlaps (2X applications) may cause significant crop injury but not result in excessive stand losses if the crop plants are at least 1 to 2 tillers when the applications are made.
- Tank mixtures of OXYFLUORFEN 2EC with ethofumesate may result in enhanced crop injury. If a tank mixture is to be applied, applications must be made only to healthy, vigorous stands of perennial grasses. The decision to apply a tank mixture containing oxyfluorfen herbicide is at the sole discretion of the grower and at the grower's risk.

#### **Crop-Specific Restrictions:**

- **DO NOT** apply to newly planted stands that are under stress from any cause as there is an enhanced opportunity for crop injury to occur
- Chemigation: DO NOT apply this product through any type of irrigation system.
- **DO NOT** graze fields that have been treated with OXYFLUORFEN 2EC as illegal residues may be present in the vegetative forage.
- **DO NOT** apply more than 3 fluid ounces (0.05 lb. active) of OXYFLUORFEN 2EC broadcast per acre in a single application.
- **DO NOT** apply more than 3 fluid ounces (0.05 lbs of active) of OXYFLUORFEN 2EC per acre per year.
- **DO NOT** make more than two applications per year when using reduced application rates.
- DO NOT graze livestock in treated fields within 150 days of application.
- DO NOT apply within 150 days of harvest.

• OXYFLUORFEN 2EC must be applied only by ground application equipment.

## Weeds Suppressed and/or Controlled:

OXYFLUORFEN 2EC will provide control or suppression of the following weeds and volunteer crops when applied between the onset of germination and the two-leaf seedling growth stage.

Common Name	Scientific Name
Groundsel, Common	Senecio vulgaris
Speedwell	Veronica Spp

## **GUAVA (Bearing and Non-bearing)**

(For Use Only in Hawaii)

Weed Control	Rate (pint/acre)	Specific Use Directions
Preemergence	5 – 8	Preemergence or Postemergence: In established guava plantings, apply
	(1.25 - 2.0)	
	lbs of	ensure adequate coverage in high densities of emerged weeds or heavy trash.
	active)	Minimize contact with guava plants by directing the spray to the soil surface.
Postemergence		Spray shields are suggested to minimize spray contact in young plantings.
	2 – 8	
	(0.25 -	For broader spectrum postemergence control of grass and broadleaf weeds,
	2.0 lbs of active)	OXYFLUORFEN 2EC may be applied in tank mix combination with paraquat or glyphosate. Follow applicable use directions, precautions and limitations on the labels of the respective tank mix products.
		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.

#### **Precautions:**

- Prevent direct spray or drift from contacting green stems, fruit or foliage, as injury may result.
- Alone or in tank mix combination, OXYFLUORFEN 2EC must be applied to only healthy growing trees.
- Application of OXYFLUORFEN 2EC must be made only after new foliage growth has hardened off.

## **Crop-Specific Restrictions:**

- DO NOT apply more than 8 pints (2.0 lbs. of active) per acre of OXYFLUORFEN 2EC in a single application
- **DO NOT** apply more than 16 pints (4.0 lbs. of active) per year.
- DO NOT make more than 4 applications per acre per year when using reduced application rates.
- DO NOT make follow up applications within 8 weeks of previous application
- DO NOT apply OXYFLUORFEN 2EC within 1 day of harvest.

Preemergence	Postemergence
ageratum	purslane, common
buttonweed crotalaria	spurge, garden
purslane, common spurge, garden	

#### **HORSERADISH**

Weed Control	Rate (pint/acre)	Specific Use Directions
Preemergence	active)	Apply OXYFLUORFEN 2EC after the horseradish roots have been planted but prior to emergence of new horseradish leaves. Emerged leaves that receive direct or indirect spray (drift) contact will be injured. If necessary, cultivate before application to destroy germinated weeds.

## Crop-Specific Restrictions:

- **DO NOT** apply more than 2 pints (0.5 lbs. of active) of OXYFLUORFEN 2EC per acre per year.
- **DO NOT** apply more than 2 pints (0.5 lbs active) per acre in a single application.
- **DO NOT** make more than one application per year.
- DO NOT apply within 60 days of harvest.
- DO NOT apply OXYFLUORFEN 2EC to horseradish plantings that have been weakened or stressed due to unfavorable temperature conditions, disease, fertilizer, nematodes, insects, pesticides, drought or excessive moisture.

٠,	tey weeds dontrolled.		
	lambsquarters, common	shepherdspurse	
	pigweed, redroot	smartweed, pennsylvania	
	purslane, common		

## **JOJOBA**

Weed Control	Rate (pint/acre)	Specific Use Directions
Preemergence Postemergence	lbs of	Initial application may be made when jojoba plants have reached a height of 6 inches or more. Use sufficient spray volume to ensure thorough coverage of dense weed growth. Direct sprays to the base of jojoba plants to avoid possible phytotoxicity to foliage. Spray shields are suggested for use in young plantings. Use higher rate in rate range for extended residual preemergence weed control. Make follow-up applications as necessary to maintain weed control.
		For early postemergence control of susceptible seedling weeds (less than 8 inches tall) apply OXYFLUORFEN 2EC at the rate of 4 pints acre (1.0 lbs of active) per. OXYFLUORFEN 2EC may be applied at the rate of 6 pints (1.5 lbs active) per acre for postemergence control of weeds up to 12 inches tall. For optimum residual control, apply during the fall or winter months. Control may be unsatisfactory for weeds greater than 12 inches tall.

#### **Precautions:**

- Avoid direct spray or drift contact with jojoba flowers or buds as severe injury may result.
- Over-the-top applications may cause burning, crinkling or bronzing of jojoba foliage, particularly to the youngest leaves, flowers, or buds present at the time of application.

## **Crop-Specific Restrictions:**

- **DO NOT** apply more than 6 pints (1.5 lbs. of active) per acre per year.
- **DO NOT** apply more than 6 pints (1.5 lbs of active) per acre in a single application.
- DO NOT apply more than 2 applications per acre per year when using reduced application rates.
- DO NOT make follow up applications within 8 weeks of previous application
- DO NOT apply within 30 days of harvest.

Preem	nergence	Poste	Postemergence	
burclover lettuce, prickly		fiddleneck, coast	minerslettuce	
fiddleneck, coast	mallow, little (malva,	filaree, broadleaf ††	nettle, burning	
filaree, broadleaf	cheeseweed)	filaree, redstem ††	pigweed, redroot †	
filaree, redstem	pigweed, redroot	filaree, whitestem †	redmaids	
filaree, whitestem	purslane, common	groundsel, common †	shepherdspurse	
groundsel, common	redmaids	henbit	sowthistle, annual	
henbit	rocket, London	mallow, little (malva,		
knotweed, prostrate	shepherdspurse	cheeseweed)		
lambsquarters, common	sowthistle, annual	,		

<sup>&</sup>lt;sup>†</sup> Highest rate may be required for acceptable postemergence control.

<sup>&</sup>lt;sup>††</sup> OXYFLUORFEN 2EC at the 6-pint (1.5 lbs active) rate will provide control of filaree not exceeding the 4-inch stage. Applications to filaree beyond the 4-inch stage may result in partial control.

## MINT (SPEARMINT AND PEPPERMINT TOPS)

Mint (Spearmint and Peppermint Tops) Grown on Mineral Soils		
Weed Control	Rate (pint/acre)	Specific Use Directions
Preemergence	4 – 6	Oregon and Washington (East of Cascades), California, Montana, Idaho,
Postemergence	(1.0 - 1.5)	Nevada, South Dakota and Utah: Apply from December through March when
	lbs of	mint is dormant. When used postemergence (to weeds), add an 80% active
	active)	ingredient nonionic surfactant at the rate of one quart per 100 gallons of spray
		volume and apply before weeds exceed a height of 4 inches.
		Late winter applications will provide maximum activity on summer weeds, but
		summer grass control may be inconsistent. For best results, fall-plowed fields
		must be harrowed to provide a smooth surface for application. In furrow-
		irrigated fields, corrugating must be done prior to application. Corrugating or
		harrowing will result in disturbance of treated soil or movement of untreated
		soil into treated areas, resulting in poor weed control.
Preemergence	2 - 3	Peppermint Tops (Western Oregon Willamette Valley): Apply
	(0.5 - 0.75)	OXYFLUORFEN 2EC from November through February to dormant
	lbs of	peppermint only. Treatments in January or February provide better residual
	active)	preemergence control of annual broadleaf weeds. Full season weed control
D		must not be expected from this treatment.

#### Precautions:

· Application must be made prior to emergence of new spring growth or severe crop injury may result.

## **Crop-Specific Restrictions:**

- DO NOT make more than one application of OXYFLUORFEN 2EC per year.
- **DO NOT** apply more than 6 pints (1.5 lbs of active) per acre in a single application.
- **DO NOT** apply more than 6 pints (1.5 lbs. of active) per acre per year.
- DO NOT apply within 30 days of harvest.
- Apply OXYFLUORFEN 2EC only to healthy stands of spearmint and peppermint tops. DO NOT apply to spearmint or peppermint tops weakened by disease, drought, flooding, excessive fertilizer, soil salts, previously applied pesticides, nematodes, insects, or winter injury, as severe injury may result.
- In the Willamette valley, **DO NOT** apply OXYFLUORFEN 2EC to mint that has been plowed.

rey rreeds controlled.		
bedstraw, catchweed	<sup>†</sup> oats, wild	
<sup>†</sup> bluegrass, annual	orach, red	
flixweed	pepperweed, yellowflower	
goundsel, common	pigweed, redroot	
lambsquarter, common	† ryegrass, Italian	
lettuce, prickly (china lettuce)	shepherdspurse	
mustard, blue (purple mustard)	sowthistle, annual	
mustard, tumble (Jim hill mustard)	tansymustard	
nightshade, hairy	thistle, Russian	

<sup>&</sup>lt;sup>†</sup> Control of annual grasses is best obtained when OXYFLUORFEN 2EC is applied prior to emergence. Postemergence control of winter annual grasses is unsatisfactory if applications are made after the 1 to 2-leaf stage.

Mint (Spearmint and Peppermint Tops) Grown on Muck Soils: For Use Only on Mint Grown in Indiana, Michigan, Montana, North Dakota, South Dakota, and Wisconsin

Weed Control	Rate (pint/acre)	Specific Use Directions
Preemergence Postemergence	(1.0 – 1.5 lbs of	<b>Note:</b> Use directions in this section apply only to spearmint and peppermint grown on muck soils (organic matter content of 20% or greater). When used postemergence (to weeds), add an 80% active ingredient nonionic surfactant at the rate of one quart per 100 gallons of spray volume and apply before weeds exceed a height of 4 inches.

#### Precautions:

Application must be made prior to emergence of new spring growth or severe crop injury may result.

## **Crop-Specific Restrictions:**

- DO NOT make more than one application of OXYFLUORFEN 2EC per year.
- **DO NOT** apply more than 6 pints (1.5 lbs of active) per acre in a single application.
- **DO NOT** apply more than 6 pints (1.5 lbs. of active) per acre per year
- DO NOT apply within 180 days of harvest
- To avoid excessive crop injury, **DO NOT** apply within 4 days of planting (sprigging) spearmint or peppermint.
- Apply OXYFLUORFEN 2EC only to healthy spearmint or peppermint tops. DO NOT apply to spearmint or peppermint tops that has been weakened by disease, nematodes, soil insects, or winter injury, as severe injury may result.

knotweed, prostrate	
pigweed, redroot	
purslane, common	

#### **NON-CROP USE**

(Non-Food-Producing, Non-Cultivated Agricultural or Non-Agricultural Areas, including Highway and Utility Rightsof-Way, Industrial Sites, Tank Farms, Storage Areas, Airports, Fencerows, and Farmsteads)

Weed Control	Rate (pint/acre)	Specific Use Directions
Preemergence	5 – 8 (1.25 – 2.0 lbs	<b>Preemergence:</b> Use higher rate in rate range for longer residual control.
	of active)	Postemergence: Use the lower rate in the rate range for control of
Postemergence	2 – 8 (0.5 – 2.0 lbs of active)	susceptible weeds in the early postemergence stage, less than 4 inches tall. Use the higher rate for weeds up to 12 inches tall. Application to weeds beyond the 4-inch stage may result in partial control.

**Tank Mixing**: Refer to Mixing Directions section for Tank Mixing Precautions. Follow applicable use directions, precautions, and limitations on the respective product labels. In interpreting the labels of tank mixed products, the most restrictive label limitations must apply. It is the pesticide user's responsibility to ensure that all products are registered for 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.

- **Preemergence:** For broader-spectrum residual preemergence weed control, OXYFLUORFEN 2EC may be applied in tank mix combination diuron or simazine.
- Postemergence: For additional postemergence control of susceptible grass and broadleaf weeds, OXYFLUORFEN 2EC may be applied in tank mix combination with paraquat or glyphosate.

## Site-Specific Restrictions:

- DO NOT feed or allow animals to graze on any areas treated with OXYFLUORFEN 2EC.
- **DO NOT** apply more than 16 pints (4.0 lbs of active) per acre per year.
- DO NOT apply more than 8 pints (2.0 lbs. of active) per acre in a single application.
- **DO NOT** make more than 4 applications per acre per year when using reduced application rates.
- DO NOT make follow up applications within 8 weeks of previous application

Pree	mergence	Poste	mergence
burclover lambsquarters, common		cheeseweed (malva)	nettle, burning
cheeseweed (malva)	lettuce, prickly	fiddleneck, coast	pigweed, redroot
fiddleneck, coast	pigweed, redroot	filaree, broadleaf	purslane, common
filaree, broadleaf purslane, common		filaree, redstem	redmaids
filaree, redstem	redmaids	groundsel, common	shepherdspurse
groundsel, common	rocket, London	henbit	sowthistle, annual
henbit	shepherdspurse	minerslettuce	
knotweed, prostrate	sowthistle, annual		

## **ONIONS**

**Cultural Considerations**: For maximum preemergence activity, the soil surface must be smooth and free of excessive trash (clippings, plant residues, etc.). Following application, cultural practices that result in redistribution or disturbance of the soil surface or move untreated soil into treated areas will reduce weed control. For best results, make applications to established beds that are left undisturbed during the time period for which weed control is desired.

	Direct Seeded Onions: Postemergence Application		
Weed Control	Rate/Acre	Specific Use Directions	
Postemergence	(0.03 - 0.06)	Northeastern States Including Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Rhode Island and Vermont: Apply OXYFLUORFEN 2EC at 2 to 4 fl oz (0.03 – 0.06 lbs of active) per acre to seeded onions that have at least 3 true leaves using ground equipment. Multiple treatments at 2 to 4 fl oz (0.03 – 0.06 lbs of active) per acre may be applied up to a maximum of 2 pints (32 fl oz) (0.5 lbs of active) per acre per year. For optimum postemergence control, apply when susceptible weeds are in the 2 to 4-leaf stage and actively growing.	
Postemergence	(0.125 – 0.25	Western States Including Arizona, California, Colorado, Idaho, Nevada, New Mexico, Oregon, Texas, Utah and Washington: Apply OXYFLUORFEN 2EC at 0.5 to 1 pint (0.125 – 0.25 lbs of active) per acre to seeded onions that have at least 2 true leaves using ground equipment. Multiple treatments at 0.5 to 1 pint (0.125 – 0.25 lbs of active) per acre may be applied up to a maximum of 2.5 pints (0.625 lbs of active) per acre per year. For optimum postemergence control, apply when susceptible weeds are in the 2 to 4-leaf stage and actively growing.	
Postemergence	0.5 pint	All Other States: Apply OXYFLUORFEN 2EC at 0.5 pint per acre to seeded onions that have at least 2 true leaves using ground equipment. Multiple treatments at 0.5 pint (0.125 lbs of active) per acre may be applied up to a maximum of 2 pints (0.5 lbs of active) per acre per year. For optimum postemergence control, apply when susceptible weeds are in the 2 to 4-leaf stage and actively growing.	
Postemergence	(see above)	Sprinkler Irrigation - All Except Northeastern States (Center Pivot, Portable Lateral or Solid Set): Apply OXYFLUORFEN 2EC at the specified broadcast application rate using sufficient irrigation to wet soil to a depth of 2 inches. Follow the application directions and precautions for "Sprinkler Chemigation" given in the Chemigation section of this label.	

Transplanted Onions: Application Immediately before Planting			
Weed Control	Rate (per/acre)	Specific Use Directions	
Preemergence	1 – 2 pint	Pre-transplant Application (Not for Use in Northeastern States or	
Postemergence	(0.25 - 0.5	Western States: OXYFLUORFEN 2EC may be applied as a broadcast or	
	lbs of active)	band application after completion of tillage operations, but before	
		transplanting of onion plants. Transplanting must be accomplished with a	
		minimum of soil disturbance and, for optimum weed control, soil surfaces	
		must be left undisturbed after transplanting for the period for which weed	
		control is desired. However, timely cultivation after weed emergence will assist in weed control. If less than 2 pint per acre was applied as a pre-	
		transplant application, postemergence applications may be made as	
		instructed for seeded onions.	
	Transpla	anted Onions: Application Immediately after Planting	
Application	Application		
Timing for Target	Rate (per/acre)	Specific Use Directions	
Weeds	,,	All Otatas Freezant Nanthassatann Otatas Transmissatan and animas and mark	
Preemergence	up to 2	All States Except Northeastern States: Transplanted onions are most tolerant of a postemergence application immediately after transplanting. An	
	pint (0.5 lbs of	application of up to 2 pints (0.5 lbs of active) per acre may be made within	
	active)	two days after transplanting. If less than 2 pints (0.5 lbs of active) per acre is	
	douvo	applied, a second application can be made two weeks or more after	
		transplanting.	
	2 - 4 fl oz	Northeastern States including Connecticut, Maine, Massachusetts,	
	(0.003 –	New Hampshire, New Jersey, New York, Rhode Island and Vermont:	
	0.006 lbs	Multiple treatments at 2 to 4 fl oz (0.003 – 0.006 lbs of active) per acre may	
	of active)	be applied up to a maximum of 2 pints (32 fl oz) (0.5 lbs of active) per acre	
		per year.	

## Onions - Use Precautions (Applicable to All Areas and Methods of Application):

- OXYFLUORFEN 2EC can cause necrotic lesions, twisting, pigtailing or stunting of the onion plants. Injury will
  be more severe if applications are made immediately following or during cool, wet weather and/or if
  applications are made prior to the specified onion growth stage of the onion plants as specified in Specific
  Use Directions.
- For Arizona, California, Idaho, Oregon, New Mexico, Nevada, Utah and Washington only, tank mixtures of OXYFLUORFEN 2EC with oils, surfactants, liquid fertilizers or other pesticides may be made but could result in unexpected results including enhanced crop response or injury.

## Onions - Crop-Specific Restrictions (Applicable to All Areas and Methods of Application):

- In all states except Northeastern states, **DO NOT** apply until direct seeded onion plants have at least two (2) fully developed true leaves. In the Northeastern states, **DO NOT** apply until direct seeded onion plants have at least three (3) fully developed true leaves. Application made prior to the specified growth stage may result in serious crop injury.
- **DO NOT** apply more than 2 pints (0.5 lb. active) of OXYFLUORFEN 2EC broadcast per acre in a single application
- **DO NOT** apply more than a total of 2 pints (0.5 lbs. of active) per acre of OXYFLUORFEN 2EC per year as a result of multiple applications.
- **DO NOT** make more than 4 applications per acre per year when using reduced application rates.
- **DO NOT** make follow up applications within 8 weeks of previous application
- DO NOT apply within 45 days of harvest.
- DO NOT apply OXYFLUORFEN 2EC as a preemergence treatment to direct seeded onions.
- Use only on dry bulb onions.
- DO NOT apply to onions grown for seed, except as instructed in separate use directions.
- See the Inherent Risks of Use section of the Terms and Conditions of Use at the end of the label for more information.

DO NOT apply to onion plants that are under stress due to drought, flooding, excessive fertilizer or soil
salts, storage conditions, wind injury, hail, frost damage, injury from previously applied pesticides, or injury
due to insects, nematodes or diseases.

#### Key Weeds Controlled:

Postemergence	
anarygrass (annual)	
veningprimrose, cutleaf <sup>(a)</sup>	
roundsel, common	
nallow, little (malva)	
ightshade, black	
igweed, prostrate <sup>(b)</sup>	
igweed, redroot <sup>(a, b)</sup>	
uncturevine	
urslane, common <sup>(a, b)</sup>	
ocket, London	
age, lanceleaf	
hepherdspurse (b)	
owthistle, annual	

<sup>(</sup>a) Weeds controlled when applied as a pre-transplant application. In addition, OXYFLUORFEN 2EC at the rate of 1 to 2 pints (0.5 lbs of active) per acre will provide control/suppression of carpetweed, Pennsylvania smartweed, galinsoga, common lambsquarters, and wild mustard. Applications of OXYFLUORFEN 2EC to muck soils may result in partial control or suppression of the weeds listed.

## **ONIONS GROWN FOR SEED**

Weed Control	Rate (per/acre)	Specific Use Directions
Preemergence	2 fl oz (0.003 lbs of active)	Northeastern States including Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Rhode Island and Vermont: Multiple treatments at 2 fl oz (0.003 lbs of active) per acre may be applied up to a maximum of 2 pints (32 fl oz) (0.5 lbs of active) per acre pre year. Prior to initial treatment, seeded onions must have at least four (4) true leaves. Multiple treatments at the aforementioned rate may be applied.
Preemergence	up to 0.5 pint (0.125 lbs of active)	All other States: Apply OXYFLUORFEN 2EC at up to 0.5 pint (0.125 lbs of active) per acre to seeded onions that have at least three (3) true leaves. Multiple treatments at 0.5 pint (0.125 lbs of active) per acre may be applied up to a maximum of 2 pints (0.5 lbs of active) per acre per year. For optimum postemergence control, apply when susceptible weeds are in the 2 to 4-leaf stage and actively growing.  Sprinkler Irrigation - Portable Lateral or Solid Set: Apply OXYFLUORFEN 2EC at the specified broadcast application rate using sufficient irrigation to wet soil to a depth of 2 inches. Follow the application directions and precautions for "Sprinkler Chemigation" given in the Chemigation section of this label.

## Use Precautions:

- Notice: Some varieties or inbred lines of onions may be more susceptible to OXYFLUORFEN 2EC. Care
  must be taken to ensure that the particular onion variety or line being grown is tolerant to OXYFLUORFEN
  2EC. It is suggested that all onion varieties or lines be tested in limited areas to ensure an adequate level of
  crop tolerance prior to an application for postemergence weed control.
- OXYFLUORFEN 2EC can cause necrotic lesions, twisting, pigtailing or stunting of the onion plants. Injury

<sup>(</sup>b) Specific weeds controlled at rates specified for use in northeastern states (see DOSAGE section).

will be more severe if applications are made immediately following or during cool, wet weather and/or if applications are made prior to the specified onion growth stage of the onion plants as specified in Specific Use Directions.

#### **Crop-Specific Restrictions:**

- In all states, **DO NOT** apply OXYFLUORFEN 2EC until the onions have reached the minimum leaf stage specified. Application prior to the specified stage of development may result in serious injury.
- **DO NOT** apply more than 0.5 pints (1.0 lb. active) of OXYFLUORFEN 2EC broadcast per acre in a single application
- **DO NOT** apply more than a total of 1 pints (0.25 lbs. of active) per acre of OXYFLUORFEN 2EC during one year.
- DO NOT make more than 2 applications per acre per year.
- **DO NOT** make follow up applications within 8 weeks of previous application
- **DO NOT** apply within 60 days of harvest.
- For seeded onions, DO NOT apply OXYFLUORFEN 2EC with oils, surfactants, liquid fertilizers or other
  pesticides.
- **DO NOT** apply to onion plants that are under stress due to drought, flooding, excessive fertilizer or soil salts, wind injury, hail, frost damage, injury from previously applied pesticides, or injury due to insects or diseases.

Postemergence		
canarygrass (annual)	puncturevine	
eveningprimrose, cutleaf groundsel, common	purslane, common <sup>†</sup> rocket, London	
mallow, little (malva)	sage, lanceleaf	
nightshade, black	shepherdspurse	
pigweed, prostrate <sup>†</sup>	sowthistle, annual	
pigweed, redroot †		

<sup>†</sup> Specific weeds controlled at rates specified for use in northeastern states (see DOSAGE section).

## PAPAYA (Hawaii Only)

Weed Control	Rate (pint/acre)	Specific Use Directions
Preemergence	4 (1.0 lbs of	The initial application must occur no sooner than 4 months after transplanting or 6 months after direct seeding, and after the papaya has reached a
Postemergence	active)	minimum height of 4 feet. Applications may be repeated at approximate 4-month intervals.  Apply preemergence or postemergence to weeds. Increase the spray volume to assure adequate coverage of dense growth of emerged weeds.  OXYFLUORFEN 2EC must be applied as a directed spray to the orchard floor beneath the papaya plants. Accurate, uniform placement of OXYFLUORFEN 2EC is essential for effective weed control and to minimize crop injury.  OXYFLUORFEN 2EC must be applied using rigid precision ground sprayer equipment.  Postemergence applications may be made up to the 4 leaf stage of weed growth.

## **Crop-Specific Restrictions:**

- **DO NOT** apply more than 4 pints (1.0 lbs. of active) of OXYFLUORFEN 2EC broadcast per acre in a single directed spray
- DO NOT apply more than 12 pints (3.0 lbs. of active) broadcast per acre per year as a result of multiple applications.
- **DO NOT** make more than 3 applications per acre per year.
- **DO NOT** make follow up applications within 8 weeks of previous application
- **DO NOT** apply OXYFLUORFEN 2EC within 1 day of harvest.
- **DO NOT** allow the herbicide solution, spray, drift or mist to contact green bark, stems, fruit or foliage as injury may result.
- **DO NOT** use OXYFLUORFEN 2EC on papaya plantings that are weak, or under stress due to temperature, disease, fertilizer, nematodes, insects, pesticides, drought or excessive moisture.

amaranth, spiny	spurge, garden
purslane, common	

#### **ROSES: FIELD-GROWN, ESTABLISHED PLANTINGS**

(For Distribution and Use Only in the State of California)

OXYFLUORFEN 2EC may be used as a post-directed application for control of certain broadleaf weeds in well-

established rose plantings after bud grafted canes are at least 18-inches in length.

Weed Control	Rate (pint/acre)	Specific Use Directions
Preemergence	2 to 4 pints (0.5 – 1.0 lbs of active)	For optimum preemergence weed control, the soil surface must be smooth and free of excessive trash (clippings, plant residues, etc.). Following application, cultural practices which result in redistribution or disturbance of the soil surface or move untreated soil into treated areas will reduce weed control.
Postemergence	2 to 4 pints (0.5 – 1.0 lbs of active)	The lower rate is specified for the control of susceptible seedling weeds in the early postemergence stage, before the 4-leaf growth stage. The higher rate is advised for weeds at the 4-leaf growth stage. The addition of a labeled rate of a herbicide adjuvant may assist in spray coverage and postemergence activity. Applications to weeds beyond the 4-leaf growth stage may result in partial control.

#### Precautions:

- Apply in 25 to 40 gallons of water per broadcast acre. Use a low-pressure sprayer with nozzles directed at the base of rose plants. Use spray shields to avoid spray contact with rose foliage. To minimize spray drift, use the lowest spray pressure suitable for the application equipment.
- OXYFLUORFEN 2EC must be applied only to roses with canes that are 18 inches or longer. Applications to
  rose plants with canes less than 18 inches in length may result in severe crop injury. Spray contact with
  foliage may cause severe crop injury and must be avoided. Leaves that are contacted by the spray will
  exhibit necrotic spotting and may drop from plant. Splashing rain or irrigation water or excessive soil
  moisture after application may result in leaf cupping, crinkling, stunting or defoliation.
- OXYFLUORFEN 2EC is phytotoxic to plant foliage. Avoid drift to nontarget areas. DO NOT apply when weather conditions favor drift.
- When applied as directed, field-grown roses are resistant to OXYFLUORFEN 2EC, but this has not been
  evaluated on all varieties, biotypes and cultivars of roses under all possible growing conditions. The user
  must exercise caution with this product. Until familiar with results under current growing conditions, limit
  application of this product to a few plants in a small area to-determine plant tolerance arid potential for injury
  before initiating large-scale applications.
- Tank mixtures of OXYFLUORFEN 2EC with oils, liquid fertilizers or other pesticides may increase the potential for crop injury and are the responsibility of the user.

## Use Restrictions:

- DO NOT apply more than 4 pints (1.0 lbs of active)of OXYFLUORFEN 2EC per acre in a single application
- **DO NOT** apply more than 8 pints (2.0 lbs of active) per acre per year.
- DO NOT make more than 2 applications per acre per year
- **DO NOT** make follow up applications within 8 weeks of previous application
- DO NOT apply OXYFLUORFEN 2EC in enclosed greenhouse or lathhouse structures.
- DO NOT feed or graze animals on areas treated with OXYFLUORFEN 2EC
- OXYFLUORFEN 2EC is phytotoxic to plant foliage. DO NOT apply when weather conditions favor drift to non-target areas.
- **DO NOT** apply OXYFLUORFEN 2EC to rose plantings that are weak, or under stress due to temperature, disease, fertilizer, nematodes, insects, pesticides, drought or excessive moisture.
- DO NOT apply this product to roses through any type of irrigation system.

## Weeds Controlled

Pre-emergence	Postemergence:
Little mallow (cheeseweed; Malva parviflora)	Little mallow (cheeseweed; Malva parviflora)
Field bindweed (annual morningglory;	Field bindweed (annual morningglory; Convolvulus
Convolvulus arvensis)	arvensis)
Morningglory, ivyleaf (Ipomoea hederacea)	Morningglory, ivyleaf ( <i>Ipomoea hederacea</i> )
Nightshade, black (Solanum nigrum)	Nightshade, black (Solanum nigrum)
Nightshade, hairy (Solanum physalifolium)	Nightshade, hairy (Solanum physalifolium)
Nodding beggarticks (Bidens spp.)	Redroot pigweed (Amaranthus retroflexus)
Redroot pigweed (Amaranthus retroflexus)	, , ,

#### **SOYBEANS**

(Not for Use in California)

SOYBEANS – EARLY PREPLANT APPLICATION IN CONSERVATION TILLAGE SYSTEMS		
Weed Control	Rate (pint/acre)	Specific Use Directions
Preemergence	1.5 – 3 (0.375 – 0.75 lbs of active)	Early Preplant Application: Surface apply OXYFLUORFEN 2EC to the stale seedbed approximately 14 days before planting conservation tillage soybeans for postemergence and preemergence residual broadleaf control. Use a spray volume of 20 or more gallons per acre and increase the spray volume if growth of existing weed is dense. OXYFLUORFEN 2EC at 2 to 3 pints provides early season suppression of annual grasses, but must not be relied upon as a basic grass herbicide. A planned program utilizing herbicides registered for early preplant, preemergence or postemergence grass control in soybeans is necessary.  Use of ridge or slot planter or a similar planting implement that causes minimal soil disturbance is advised. Movement or redistribution of surface soil will reduce herbicidal effectiveness.

SOYBEANS: NO-TILL (Double-Crop)		
Application Timing For Target Weeds	Rate (pint/acre)	Specific Use Directions
Preemergence Postemergence	0.5 – 2 (0.125 - 0.5 lbs of active)	Preemergence Application to Soybeans: Applied preemergence, OXYFLUORFEN 2EC provides postemergence and residual preemergence control of susceptible broadleaf weeds. Apply OXYFLUORFEN 2EC within one day after planting. Later applications may result in severe crop injury. Apply in a minimum spray volume of 20 gallons per acre and increase spray volume if growth of existing weeds is dense.

**Tank Mixing:** For enhanced postemergence control of existing grass and broadleaf weeds, OXYFLUORFEN 2EC may be tank mixed with paraquat or glyphosate. For extended residual control of annual grassed no-till soybeans, OXYFLUORFEN 2EC may also be tank mixed with a residual grass herbicide. It is the pesticide user's responsibility to ensure that all products are registered for 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.

SOYBEANS: NO-T	SOYBEANS: NO-TILL (Double-Crop)		
Application Timing For Target Weeds	Rate (pint/acre)	Specific Use Directions	
Postemergence	1 (0.25 lbs of active)	Postemergence Directed Application: OXYFLUORFEN 2EC may be applied as a post-directed application. Optimum control is achieved when OXYFLUORFEN 2EC is applied to seedling weeds not exceeding 4 true leaves (not counting cotyledon leaves) and actively growing. Use of an 80% nonionic surfactant cleared for application to growing crops at the rate of 2 pints per 100 gallons of spray is required whenever postemergence weed control is desired. For Postemergence application, Soybeans must be a minimum 8 inches tall. Use a minimum of 2 flat fan nozzles per row. Use branch lifters or shields to prevent excessive spray contract to the soybean plants. <b>DO NOT</b> use hollow cone nozzles.	

Soybeans: Grown Under Conventional Tillage Systems		
Application Timing For Target Weeds	Rate (pint/acre)	Specific Use Directions
Preemergence Postemergence	1 – 1.5 (0.25 – 0.375 lbs of active)	Preemergence Application to Soybeans: OXYFLUORFEN 2EC provides preemergence control of susceptible broadleaf weeds. Apply OXYFLUORFEN 2EC within one day after planting. Later applications may result in severe crop injury. Apply in a minimum spray volume of 20 gallons per acre and increase spray volume if growth of existing weeds is dense. The 1.5 pint (0.375 lbs of active)per acre rate will assist in early season annual grass control but must not be relied upon as a basic grass herbicide. OXYFLUORFEN 2EC may also be applied as a preemergence application following a preplant incorporated grass herbicide treatment.

Preemergence Tank Mixes (To Control Additional Grass and Broadleaf Weeds): Apply preemergence tank mixes of OXYFLUORFEN 2EC within one day after planting. Later applications may result in severe crop injury. It is the pesticide user's responsibility to ensure that all products are registered for 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.

- OXYFLUORFEN 2EC at 0.6 to 1.5 pints (0.15 0.375 lbs of active)per acre may be applied preemergence to soybeans in tank mix with Dual Magnum Herbicide or Lasso Herbicide. OXYFLUORFEN 2EC may be applied alone as a preemergence application following a preplant incorporated grass herbicide application or as a tank mix in a preemergence application with herbicides. Refer to the label of tank mix product for additional weeds controlled.
- OXYFLUORFEN 2EC at 0.6 to 0.8 pints (0.15 0.2 lbs of active) per acre may be applied preemergence to soybeans in tank mix with clomazone

Soybeans in tank	Soybeans in tank mix with ciomazone	
Postemergence	1	Postemergence Directed Sprays: OXYFLUORFEN 2EC may be applied as
	(0.25 lbs of	a post-directed application at 1 pint (0.25 lbs of active) per acre. Optimum
	active)	control is achieved when weeds not exceed 4 true leaves and are actively
		growing ( <b>DO NOT</b> count cotyledon leaves). Use of an 80% nonionic
		surfactant cleared for application to growing crops at the rate of 2 pints(0.5
		lbs of active) per 100 gallons of spray is required whenever postemergence
		weed control is desired. For postemergence application, Soybeans must be
		a minimum 8 inches tall. Use a minimum of 2 flat fan nozzles per row. Use
		branch lifters or shields to prevent excessive spray contact to the soybean
		plants.
		DO NOT use hollow cone nozzles.

**Postemergence Tank Mixes:** For broader spectrum control or broadleaf weeds, OXYFLUORFEN 2EC may be applied in tank mix with 2,4-DB herbicide. Use 1 pint of OXYFLUORFEN 2EC with specified rate of 2,4-DB per acre. Refer to label of tank mix product for additional weeds controlled.

It is the pesticide user's responsibility to ensure that all products are registered for 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.

- Soybeans Precautions (All Methods and Timings to Soybeans):
- Soybeans are tolerant to preemergence and post-directed applications of OXYFLUORFEN 2EC at specified
  rates, however, under certain conditions injury may occur. Heavy splashing rain shortly after crop
  emergence or cold, wet soil conditions during early growth stages can cause leaf cupping and crinkling.
  When injury occurs, it is limited to the first few leaves that develop after crop emergence. Soybeans recover
  from this injury and yields are not adversely affected. Soybeans accidentally sprayed during a post-directed
  application will exhibit necrotic spotting and injury to the soybean plant. Exercise care to avoid spray contact
  with the soybean leaves.

• Tank Mixing: Read and observe all label directions before using. Follow applicable use directions, precautions and limitations on the labels of the respective tank mix products. Refer to Mixing Directions section for Tank Mixing Precautions. Follow applicable use directions, precautions, and limitations on respective product labels. In interpreting the labels of tank mixed products, the most restrictive limitations must apply. It is the pesticide user's responsibility to ensure that all products are registered for 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.

## Soybeans - Crop-Specific Restrictions:

- DO NOT apply more than 3 pints (0.75 lbs of active)of OXYFLUORFEN 2EC per acre in a single application
- DO NOT make more than two applications of OXYFLUORFEN 2EC per acre per year.
- DO NOT make follow up applications within 8 weeks of previous application
- **DO NOT** apply more than 2 pints (0.5 lbs active) of OXYFLUORFEN 2EC per acre per year as a result of preemergence application in no-till (double-crop) or conventional till soybeans, or post-directed in conventional till soybeans. If early preplant application is made
- DO NOT apply more than 3 pints (0.75 lb active) of OXYFLUORFEN 2EC per acre per year.
- DO NOT apply a post-directed application of OXYFLUORFEN 2EC to soybeans after the initial appearance
  of blooms.

## Key Weeds Controlled (OXYFLUORFEN 2EC Alone):

Preemergence	Preemergence Postemergence	
groundcherry, cutleaf †	cocklebur, common	nightshade, hairy
jimsonweed	croton, tropic	pigweed, redroot †
lambsquarters, common	groundcherry, cutleaf	poinsettia, wild
nightshade, American black †	groundcherry, Wright	purslane, common
pigweed, redroot	jimsonweed	sesbania, hemp
poinsettia, wild	lambsquarters, common	shepherdspurse
shepherdspurse	morningglory, annual (up to	sicklepod ††
sida, prickly (teaweed)	6 leaf)	sida, prickly (teaweed) †
smartweed, Pennsylvania	mustard, wild	smartweed, Pennsylvania
sowthistle, common †	nightshade, American black	velvetleaf
velvetleaf	nightshade, black	

<sup>&</sup>lt;sup>†</sup> Multiple applications may be required for acceptable control.

<sup>&</sup>lt;sup>††</sup> Post-directed applications of OXYFLUORFEN 2EC will kill or suppress seedlings not exceeding the one true leaf stage.

#### **TARO**

(For Use Only in Hawaii)

For use only to dryland taro grown in Hawaii. Dryland taro is defined as taro grown without irrigation, or by using irrigation practices that do not result in run-off, irrigation return flow, or other loss of irrigation water from the production area. If irrigation is used, the water applied shall not exceed the field capacity of the soil.

Weed Control	Rate (pint/acre)	Specific Use Directions
Preemergence	2	Preemergence to Taro and Weeds: A single application of OXYFLUORFEN
	(0.5 lbs of	2EC at the rate of 2 pints (0.5 lbs of active) per acre may be applied within 1
	active)	week after transplanting but prior to emergence of taro plants.
Postemergence	1	Postemergence to Taro and Weeds: OXYFLUORFEN 2EC may be applied as a post-directed or band application at the rate of 1 pint (0.25 lbs of active) per acre. Effective control of succulent weed seedlings in the 2-to 3-leaf stage can usually be obtained. Applications to weeds beyond the 3-leaf stage may result in partial control.

#### Precautions:

- Accurate, uniform placement of OXYFLUORFEN 2EC is essential for effective weed control and to minimize
  crop injury. Taro foliage receiving accidental spray or drift will be injured. OXYFLUORFEN 2EC must be
  applied using rigid precision ground sprayer equipment.
- Occasionally, after the use of OXYFLUORFEN 2EC, spotting, crinkling or flecking may appear on the leaves of the taro. Leaves that receive direct or indirect (drift) spray contact will be injured.

## **Crop-Specific Restrictions:**

- **DO NOT** apply more than 2 pints (0.5 lbs. of active) of OXYFLUORFEN 2EC broadcast per acre as a single preemergence application.
- **DO NOT** apply more than 1 pint (0.25 lbs. of active) of OXYFLUORFEN 2EC per acre in a single post-direct spray or more than 2 pints (0.5 lbs. of active) per acre per year as a result of multiple post-directed applications.
- **DO NOT** make more than 2 applications per acre per year when using reduced application rates.
- **DO NOT** make follow up applications within 10 weeks of previous application
- **DO NOT** apply more than 4 pints (1.0 lbs of active) of OXYFLUORFEN 2EC per acre per year as a result of preemergence and post-direct applications.
- DO NOT apply OXYFLUORFEN 2EC within 6 months of harvest of taro (corms, leaves).
- **DO NOT** use OXYFLUORFEN 2EC on taro plantings that are weak, or under stress due to temperature, disease, fertilizer, nematodes, insects, pesticides, drought or excessive moisture.

#### Key Weeds Controlled:

amaranth, spiny
purslane, common
spurge, garden

#### TREE FRUIT/NUT/VINE CROPS

#### TREE NUTS, GROUP 14

(Dormant Application)

Almond, Apple, Apricot, Avocado, Beechnut, Brazil Nut, Butternut, Cashew, Cherry, Chestnut, Chinquapin, Crab Apple, Date, Feijoa, Fig, Filbert, Grapes, Hickory Nut, Kiwi, Loquat, Macadamia Nut, Mayhaws, Nectarine, Olives, Peach, Pear, Pecan, Persimmon, Pistachio, Plum, Pomegranates, Prune, Quince, and Walnut

Weed Control	Rate (pint/acre)	Specific Use Directions
Preemergence		Apply OXYFLUORFEN 2EC a minimum of 20 gallons of water per acre.
(broadcast	5 – 6	Use higher spray volumes to ensure thorough coverage in high densities of emerged weeds or heavy trash. Sprays must be directed to the soil and the
application)	(1.25 – 1.5	base of dormant trees or vines.
	lbs of	
	active)	In California, OXYFLUORFEN 2EC may be applied as an over-the-top or
		directed spray to dormant nonbearing grape plantings. The use of a low- pressure sprayer is suggested. <b>DO NOT</b> apply over-the-top to grape
(banded	5 – 8	plantings that are under stress due to drought, flooding, excessive fertilizer
application)	(1.25 - 2.0)	or soil salts, storage conditions, wind injury, hail, injury from previously
	lbs of	applied pesticides, or injury due to insects, nematodes, or diseases, as
	active)	severe crop injury may result.
Postemergence		Apply in a spray volume of 40 or more gallons per acre. For optimum
(broadcast	2-6	control, apply when weeds are at seedling stage of growth.
(broadcast application)	(0.5 – 1.5	The lower rate in the rate range (2 pints (0.5 lbs of active) per acre) is
application)	lbs of	required for the control of susceptible seedling weeds in the early
	active)	postemergence stage up to the 4-leaf stage. Higher rates (up to 6 pints
		(1.5 lbs of active) per acre) may be used for weeds up to the 6-leaf stage.
(banded	2 – 8	Applications to weeds beyond the 6-leaf stage may result in partial control.
application)	(0.5 - 2.0)	
,	lbs of	
	active)	

**Tank Mixing:** Refer to Mixing Directions section for Tank Mixing Precautions. Follow applicable use directions, precautions, and limitations on the respective product labels. In interpreting the labels of tank mixed products, the most restrictive label limitations must apply. See labels of tank mix partners to determine suitability and use rates for various crops.

**Postemergence:** For broader spectrum postemergence control of listed grass and broadleaf weeds, OXYFLUORFEN 2EC may be applied in tank mix with paraquat or glyphosate. These herbicides may also be added to preemergence tank mixes for enhanced control of existing weeds.

**Preemergence:** For broad-spectrum preemergence control of susceptible grass and broadleaf weeds in listed tree fruit, nut or vine plantings, OXYFLUORFEN 2EC may be applied in tank mix with napropamide.

**Chemigation (All States):** For dormant season application using sprinkler (low-volume (micro sprinkler), drip (trickle), and flood (basin) irrigation systems, apply OXYFLUORFEN 2EC at the specified rate per acre. Follow applicable directions in the Chemigation section of this label when making applications using irrigation systems.

## Precautions:

- OXYFLUORFEN 2EC or any of the combinations specified on this label must be applied to only healthy growing trees or vines.
- Avoid direct plant contact. Direct spray toward the base of tree or vines unless specific use specifications allow over-the-top application.

- In Arizona and California, OXYFLUORFEN 2EC may be applied during the period following completion of final harvest up to February 15 (February 1st in the Coachella Valley, California). Applications made after these calendar dates, but prior to bud swell, may result in significant crop injury and are the responsibility of the user.
- For banded applications, up to 8 pints (2.0 lbs. of active) per acre of OXYFLUORFEN 2EC per year may be applied within the treated band.

## **Crop-Specific Restrictions:**

- In all states, unless otherwise specified, DO NOT apply OXYFLUORFEN 2EC during the period between bud swell and completion of final harvest or when fruit/nuts are present. OXYFLUORFEN 2EC may be applied upon completion of final harvest.
- **DO NOT** apply more than 8 pints (2.0 lb. active) of OXYFLUORFEN 2EC broadcast per acre in a single application
- DO NOT apply more than a maximum of 6 pints (1.5 lbs. of active) broadcast per acre per year.
- DO NOT apply more than 3 applications per acre per year when using reduced application rates.
- **DO NOT** make follow up applications within 2 weeks of previous application.
- **DO NOT** apply to grapes or kiwi established less than 3 years unless vines are on a trellis wire a minimum of 3 feet above the soil surface.
- DO NOT apply to grapes or kiwi that are not staked or trellised unless vines are free standing.

Key Weeds Controlled (Arizona and California):

Preemergence		Postemergence	
burclover cheeseweed (malva) fiddleneck, coast filaree, broadleaf filaree, redstem filaree, whitestem groundsel, common henbit knotweed, prostrate	lambsquarter, common lettuce, prickly pigweed, redroot purslane, common redmaids rocket, London shepherdspurse sowthistle, annual	cheeseweed (malva) fiddleneck, coast filaree, broadleaf † filaree, redstem † filaree, whitestem † groundsel, common henbit	minerslettuce nettle, burning pigweed, redroot redmaids shepherdspurse sowthistle, annual

<sup>&</sup>lt;sup>†</sup> OXYFLUORFEN 2EC at the 6-pint (1.5 lbs. active) rate will provide control of filaree not exceeding the 4-inch stage. Applications to filaree beyond the 4-inch stage may result in partial control.

Key Weeds Controlled (All Other States Except Arizona and California):

Preemergence		Postemergence	
camphorweed cudweed, narrowleaf eveningprimrose, cutleaf † groundcherry, cutleaf jimsonweed lambsquarters, common nightshade, American	pigweed, redroot poinsettia, wild sida, prickly smartweed, Pennsylvania sowthistle, annual spurge, prostrate spurge, spotted	balsamapple cocklebur, common cudweed, narrowleaf †† eveningprimrose, cutleaf ††† groundcherry, cutleaf groundcherry, Wright	pepperweed, Virginia pigweed, redroot poinsettia, wild purslane, common sesbania, hemp shepherdspurse sida, prickly (teaweed)
black nightshade, black pepperweed, Virginia	velvetleaf	jimsonweed lambsquarters, common morningglory, annual nightshade, American black nightshade, black	smartweed, Pennsylvania sowthistle, annual velvetleaf

<sup>&</sup>lt;sup>†</sup> Highest rate and/or multiple applications may be required for acceptable control.

<sup>††</sup> Maximum 0.5-inch diameter.

<sup>†††</sup> Highest rate and/or multiple applications may be required for acceptable control.

## PISTACHIOS, WALNUTS, ALMONDS (CALIFORNIA AND ARIZONA ONLY)

(Non-Dormant Application)

Weed Control	Rate (pint/acre)	Specific Use Directions
Preemergence	5 – 6	Preemergence: For residual weed control of listed weeds.
	(1.25 - 1.5)	
	lbs of	
	active)	
Postemergence	1 – 2	<b>Postemergence (Suppression):</b> Apply to seedling weeds less than 4 inches
	(0.25 - 0.5)	in height. Repeat applications may be required.
	lbs of	
	active)	
	2 – 6	Postemergence (Cleanup): Contact (postemergence) control for cleanup
	(0.5 - 1.5)	sprays and preharvest applications. Apply to seedling weeds less than 4
	lbs of	inches in height. Applications to weed seedlings beyond the 4-inch stage
	active)	may result in partial control.

**Tank Mixing:** For broader spectrum grass and broadleaf weed control in tree row middles, OXYFLUORFEN 2EC may be tank mixed with either paraquat or glyphosate. Refer to Mixing Directions section for Tank Mixing Precautions. Follow applicable use directions, precautions, and limitations on the respective product labels. In interpreting the labels of tank mixed products, the most restrictive label limitations must apply.

Chemigation: Follow chemigation instructions in Product Use Information section.

**Flood (Basin) Irrigation:** For flood (basin) irrigation systems, meter continuously into the water during the entire irrigation period. Best weed control results are obtained when a uniform distribution and flow of irrigation water is maintained over level land. Irrigation water treated with OXYFLUORFEN 2EC must be contained on the treated area until the water is absorbed by the soil.

Low Volume Sprinkler (Microsprinkler) and Drip (Trickle) Irrigation: Apply only through low-volume sprinkler or drip systems designed to uniformly distribute irrigation water beneath the tree canopy. Applications must be made prior to weed emergence; otherwise postemergence activity may be inconsistent due to uneven coverage. Meter OXYFLUORFEN 2EC at a continuous rate during the middle 1/3 of the irrigation period and discontinue application during the final 1/3 of the irrigation period to ensure proper flushing of the irrigation system. Use of OXYFLUORFEN 2EC through low-volume sprinklers or drip emitters helps to reduce the "ring effect" of weed escapes in areas around sprinklers or emitters where previously applied broadcast or directed treatments begin to break down.

#### Precautions:

- Direct spray toward the base of trees. Avoid direct contact with foliage or nuts.
- OXYFLUORFEN 2EC must be applied only to healthy growing trees

## **Crop-Specific Use Restrictions:**

- When applied as a non-dormant treatment, OXYFLUORFEN 2EC can only be applied to pistachio plantings between May and 7 days prior to harvest.
- When applied as a non-dormant treatment, OXYFLUORFEN 2EC can only be applied to almond plantings between April 1 and September 30 and to walnut plantings between May 1 and September 30.
- DO NOT apply OXYFLUORFEN 2EC within 7 days of harvest of pistachios.
- DO NOT apply OXYFLUORFEN 2EC within 30 days of harvest of almonds.
- DO NOT apply OXYFLUORFEN 2EC within 7 days of harvest of walnuts.
- **DO NOT** apply more than 6 pints (1.5 lb. active) of OXYFLUORFEN 2EC broadcast per acre in a single application
- **DO NOT** apply more than 6 pints (1.5 lbs. of active) of OXYFLUORFEN 2EC per acre per year during the non-dormant period.
- **DO NOT** make more than 3 applications per acre per year when using reduced application rates.
- DO NOT make follow up applications within 2 weeks of previous application

# Key Weeds Suppressed and/or Controlled

cheeseweed, malva	morningglory species, annual
fiddleneck, coast	mustard, black
filaree, broadleaf	nettle, burning
filaree, redstem	pigweed, redroot
filaree, whitestem	purslane, common
groundsel, common	redmaids
henbit	rocket, London
minerslettuce	sowthistle, annual

# Additional Weeds Controlled in Tank Mix with Glyphosate or Paraquat

barnyardgrass	horseweed (marestail)
bluegrass, annual	rocket, London
chickweed, common	ryegrass, Italian

#### **ALMONDS- REDUCED PREHARVEST INTERVAL**

CALIFORNIA ONLY

Nondormant Application with a 30 to 15 Day PHI

Weed Control	Rate (pint/acre)	Specific Use Directions
Postemergence suppression  (seedlings less than 4 inches in height.)	0.5 (0.125 lbs. active)	OXYFLUORFEN 2EC provides effective suppression of cheeseweed (Malva), fleabane and marestail (horseweed) as well as other weeds listed below in non-dormant almonds when applied to young broadleaf weed seedlings. For enhanced postemergence activity against these target weeds as well as other weed species, tank mixtures of OXYFLUORFEN 2EC with either paraquat or glyphosate may be used to increase the spectrum of weed control by either of these tank mix partners. Compatibility of each mixture must be established before tank mixing and application must be applied by ground equipment. Follow all precautions and restrictions on the labeling of the products to be tank mixed.
		For summer broadleaf weed control, apply no more than 5 pints (1.25 lbs. active) of OXYFLUORFEN 2EC per broadcast acre prior to the February 15 <sup>th</sup> cutoff. Then for summer use, apply no more than 0.5 pints (0.125 lbs. active) per broadcast acre up to 30 days before harvest, and no more than 0.5 pints (0.125 lbs. active) per broadcast acre between 30 and 15 days before harvest. For a broader spectrum of grass weeds and broadleaf weeds control in the tree row middles, a tank mixture of OXYFLUORFEN 2EC with either paraquat or glyphosate can be used. Read and follow the labeling of either the paraquat or glyphosate pesticide product which is to be tank mixed with OXYFLUORFEN 2EC.

**Ground Application:** Apply a minimum spray volume of 10 gallons of water per acre. Use higher volumes to ensure adequate coverage in high densities of emerged weeds or heavy trash. Use conventional low-pressure ground spray equipment with flat fan spray nozzles at 20 to 40 psi. Position an off-center nozzle at the end of the boom. Spray equipment calibrated carefully before each use.

**Chemigation Application:** Apply this product only through flood (basin) irrigation systems, or low-volume sprinkler (microsprinkler) and drip (trickle) irrigation systems designed to distribute irrigation water beneath the tree canopy. For additional information on these systems, see the APPLICATION THROUGH IRRIGATION SYSTEMS - CHEMIGATION section of this label.

**Cultural Considerations For All Applications:** In order to provide maximum effectiveness of preemergence activity of OXYFLUORFEN 2EC, the berm or soil surface must be level, smooth, and free of crop or weed trash (decaying leaves, clippings, dead weeds, etc.). Remove leaves and trash by blowing the area to be treated or by thoroughly mixing the trash into the soil through cultivation prior to herbicide applications.

Cultural practices that result in redistribution or disturbance of the soil surface after treatment will decrease the herbicidal effectiveness of OXYFLUORFEN 2EC. Cutting water furrows or cultivations that mix untreated soil into treated areas will also reduce the effectiveness of the treatment.

#### Precautions:

- Apply OXYFLUORFEN 2EC only to healthy trees.
- Direct spray toward the base of the tree. Avoid direct herbicide contact with foliage and fruit.

#### **Specific Use Restrictions:**

- When applied as a non-dormant treatment, OXYFLUORFEN 2EC can only be applied to almonds between April 1 and September 30.
- DO NOT apply more than 0.5 pints (1.0 lb. active) of OXYFLUORFEN 2EC broadcast per acre in a single

## application

- **DO NOT** apply more than 6 pints (1.5 lbs of active) broadcast per acre of OXYFLUORFEN 2EC during the non-dormant period.
- In order to use 0.5 pints (0.125 lbs of active) OXYFLUORFEN 2EC at 15 days before harvest, no more than 5 pints (1.25 lbs of active) must have been applied within 60 days of harvest and no more than 0.5 pints (0.125 lbs of active) must have been applied within 30 days of harvest.
- **DO NOT** apply more than 6 pints (1.5 lbs. active) of OXYFLUORFEN 2EC broadcast per acre in one year.
- DO NOT make more than 4 applications per year when using reduced application rates

Weeds Suppressed and/or Controlled

Cheeseweed (Malva)	Morningglory Species, Annual
Fiddleneck, Coast	Mustard, Black
Filaree, Broadleaf	Nettle, Burning
Filaree, Redstem	Pigweed, Redroot
Filaree, Whitestem	Purslane, Common
Groundset, Common	Redmaids
Henbit	Rocket, London
Miner's Lettuce	Sowthistle, Annual

Additional Weeds Controlled in Tank Mix with Glyphosate or Paraguat

Additional Woods Controlled in Tarik With Cryphocate of Faraquat		
Barnyardgrass	Horseweed (Marestail)	
Bluegrass, Annual	Rocket, London	
Chickweed, Common	Ryegrass, Italian	
Fleabane		

# APRICOTS, NECTARINES, OLIVES, PEACHES, PLUMS AND PRUNES CALIFORNIA ONLY

Nondormant Application to Apricots, Nectarines, Olives, Peaches, Plums and Prunes in California

Weed Control	Rate (pint/acre)	Specific Use Directions
Postemergence suppression  (seedlings less than 4 inches in height.)	0.5 (0.125 lbs. active)	OXYFLUORFEN 2EC provides effective postemergence control of cheeseweed (Malva), Fleabane, and Marestail (Horseweed) young broadleaf weed seedlings in non-dormant apricots, nectarines, olives, peaches, plums and prunes. For enhanced postemergence activity against these target weeds as well as other weed species, tank mix OXYFLUORFEN 2EC with either paraquat or glyphosate to increase the spectrum of weed control by either of these tank mix partners. Compatibility of each mixture must be established before tank mixing and application must be applied by ground equipment. Follow all precautions and restrictions on the labeling of the products to be tank mixed.
		Repeat applications may be required. For a broader spectrum of grass weeds and broadleaf weeds control in the tree row middles, a tank mixture of OXYFLUORFEN 2EC with either paraquat or glyphosate can be used. Read and follow the labeling of either the paraquat or glyphosate pesticide product which is to be tank mixed with OXYFLUORFEN 2EC.

**Ground Application:** Apply a minimum spray volume of 10 gallons of water per acre. Use higher volumes to ensure adequate coverage in high densities of emerged weeds or heavy trash. Use conventional low-pressure ground spray equipment with flat fan spray nozzles at 20 to 40 psi. Position an off-center nozzle at the end of the boom. Calibrate spray equipment carefully before each use.

**Chemigation Application:** Apply this product only through flood (basin) irrigation systems, or low-volume sprinkler (microsprinkler) and drip (trickle) irrigation systems designed to distribute irrigation water beneath the tree canopy. For additional information on these systems, see the APPLICATION THROUGH IRRIGATION SYSTEMS-CHEMIGATION section of this label.

**Cultural Considerations for All Applications:** In order to provide maximum effectiveness of preemergence activity of OXYFLUORFEN 2EC, the berm or soil surface must be level, smooth, and free of crop or weed trash (decaying leaves, clippings, dead weeds, etc.). Remove leaves and trash by blowing the area to be treated or by thoroughly mixing the trash into the soil through cultivation prior to herbicide applications.

Cultural practices that result in redistribution or disturbance of the soil surface after treatment will decrease the herbicidal effectiveness of OXYFLUORFEN 2EC. Cutting water furrows or cultivations that mix untreated soil into treated areas will also reduce the effectiveness of the treatment.

For best results, apply to established berms or soil surfaces that are left undisturbed during the time period for which weed control is desired.

#### **Precautions:**

- Apply OXYFLUORFEN 2EC only to healthy trees.
- Direct spray toward the base of the tree. Avoid direct herbicide contact with foliage and fruit.

#### **Specific Use Restrictions**

- When applied as a non-dormant treatment, OXYFLUORFEN 2EC can only be applied to apricots, peaches, nectarines, plums and prunes after May 1. OXYFLUORFEN 2EC can only be applied as a non-dormant treatment to olives after bloom.
- **DO NOT** apply more than 0.5 pints (0.125 lb. active) of OXYFLUORFEN 2EC broadcast per acre per single application during the non-dormant period.
- DO NOT apply more than 1 pint (0.25 lbs of active) broadcast per acre of OXYFLUORFEN 2EC during the nondormant period.
- DO NOT apply OXYFLUORFEN 2EC within 14 days of harvest of fruit.
- DO NOT apply more than 6 pints (1.5 lbs ai) broadcast per acre of OXYFLUORFEN 2EC per year.
- DO NOT make more than 4 applications per year when using reduced application rates

#### WINDBREAKS AND SHELTERBELTS

(For Use Only in Minnesota, North Dakota, South Dakota and Wyoming)

Weed Control	Rate (pint/acre)	Specific Use Directions
Preemergence	4 – 6	Apply OXYFLUORFEN 2EC may be applied as a broadcast, banded or
Postemergence	(1.0 - 1.5)	post-directed spray.
	lbs of	
	active)	Preemergence control is most effective when spray is applied to clean, weed-free soil surfaces. Pre-transplant applications must be made after completion of soil preparation but prior to transplanting. Transplanting must be completed with minimal soil disturbance. For optimum weed control results, treated soil surfaces must be left undisturbed during the time period for which weed control is desired.
		<b>Postemergence Weed Control:</b> For best results, apply before 4-leaf stage for broadleaf weeds or 2-leaf stage for grass weeds.
		Conifers: OXYFLUORFEN 2EC can be applied pre-transplant, post-directed or postemergence (over-the-top) to conifers. Postemergence or post-directed applications may be applied prior to budbreak or after new growth foliage has hardened off and new terminal buds have formed.  Deciduous Hardwoods: OXYFLUORFEN 2EC has exhibited selectivity to many deciduous species when applied pre-transplant or as a post-directed spray prior to budbreak.

## Precautions:

- Important: Some varieties or cultivars of conifers or deciduous species listed may be susceptible to OXYFLUORFEN 2EC. Care must be taken to ensure that the particular variety to be sprayed with OXYFLUORFEN 2EC is tolerant. For unfamiliar species, it is suggested that OXYFLUORFEN 2EC be tested on a limited number of plants prior to large-scale application.
- Occasionally after the use of OXYFLUORFEN 2EC, a spotting, crinkling or flecking may appear on the leaves of the deciduous species. Leaves that receive direct or indirect (drift) spray contact will be injured. Deciduous species typically rapidly outgrow these symptoms and develop normally.
- Application after budbreak may result in injury to deciduous species and is not advised. If non-dormant
  application is required, apply only after foliage has fully expanded and hardened off. Avoid direct or indirect
  spray contact with the foliage by applying to the soil surface as a directed spray.
- Apply OXYFLUORFEN 2EC only to healthy deciduous and/or conifer trees.

## **Specific Use Restrictions for Shelterbelts:**

- **DO NOT** apply more than 6 pints (1.5 lbs. of active) of OXYFLUORFEN 2EC per acre in a single application
- **DO NOT** apply more than 18 pints (4.5 lbs. of active) per acre per year.
- DO NOT make more than 4 applications per acre per year when using reduced application rates.
- **DO NOT** make follow up applications within 8 weeks of previous application.
- **DO NOT** apply OXYFLUORFEN 2EC to conifers or deciduous trees that have been weakened or under stress from excessive fertilizer or soil salts, disease, nematodes, frost, drought, flooding, previously applied pesticides, soil insects, or winter injury, as severe injury may result.

#### Kev Broadleaf Weeds Controlled:

buckwheat, wild	knotweed, prostrate	mustard, wild	purslane, common
burclover	kochia	nettle, burning	rocket, London
carpetweed	ladysthumb	nightshade, black	shepherdspurse †
dock, curly	lambsquarters,	nightshade, hairy	smartweed,
groundcherry, cutleaf	common	oats, wild	Pennsylvania

groundcherry, Wright	lettuce, prickly	orach, red	sowthistle, annual
groundsel, common	mallow, little	pepperweed, yellow	tansy mustard
henbit	mayweed	flower	thistle, Russian
jimsonweed	mustard, blue	pigweed, prostrate	(seedling)
	mustard, tumble	pigweed, redroot	velvetleaf

<sup>&</sup>lt;sup>†</sup> The highest rate or multiple applications may be required for acceptable control.

## Key Grasses Controlled:

barnyardgrass	foxtail, giant
bluegrass, annual	goosegrass
crabgrass, large	witchgrass

# OXYFLUORFEN 2EC may be applied to numerous conifer and deciduous species, including the following:

**Conifer Species** 

Common Name	Scientific Name	
douglas-fir	Pseudotsuga menziesii	
fir		
grand	Abies grandis	
fraser	Abies fraseri	
noble	Abies procera	
hemlock		
eastern hemlock	Tsuga canadensis	
western hemlock	Tsuga heterophylla	
pine		
Austrian	Pinus nigra	
eastern white	Pinus strobus	
jack	Pinus banksiana	
Himalayan	Pinus graffithii	
loblolly	Pinus taeda	
lodgepole	Pinus contorta	
longleaf	Pinus palustris	
monterey	Pinus radiata	
mugo	Pinus mugo	
ponderosa	Pinus ponderosa	
scotch	Pinus sylvestris	
shortleaf	Pinus echinata	
slash	Pinus elliottii	
Virginia	Pinus virginiana	
spruce		
blue	Picea pungens	
dwarf Alberta	Picea glauca cornea	
Norway	Picea abies	
Sitka	Picea sitchensis	
Arborvitae	Thuja occidentalis	
	Thuja orientalis	
juniper	Juniperus chinensis	
	Juniperus horizontalis	
	Juniperus procumbens	
	Juniperus sabina	
	Juniperus scopulorum	
red cedar	Juniperus virginiana	
yew	Taxus spp.	

#### **Deciduous Hardwood Species**

Common Name	Scientific Name
ash	Fraxinus spp.
crabapple	Malus spp.
eucalyptus	Eucalyptus spp.
lilac	Syringa vulgaris
maple, black	Acer nigrum
oak, northern red	Quercus rubra
olive, Russian	Elaeagnus angustifolia
poplar (cottonwood)	Populus spp.
sweetgum	Liquidambar styraciflua
sycamore	Platanus occidentalis
walnut, black	Juglans nigra

#### **TERMS AND CONDITIONS OF USE**

If terms of the following Warranty Disclaimer, Inherent Risks of Use, and Limitation of Remedies are not acceptable, return unopened package at once to the seller for a full refund of purchase price paid. Otherwise, to the extent consistent with applicable law, use by the buyer or any other user constitutes acceptance of the terms under Warranty Disclaimer, Inherent Risks of Use and Limitations of Remedies.

#### Warranty Disclaimer

Albaugh LLC warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated on the label when used in strict accordance with the directions, subject to the inherent risks set forth below. Albaugh MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR ANY OTHER EXPRESS OR IMPLIED WARRANTY.

## Inherent Risks of Use

It is impossible to eliminate all risks associated with use of this product. Plant injury, lack of performance, or other unintended consequences may result because of such factors as use of the product contrary to label instructions (including conditions noted on the label, such as unfavorable temperature, soil conditions, etc.), abnormal conditions (such as excessive rainfall, drought, tornadoes, hurricanes), presence of other materials, the manner of application, or other factors, all of which are beyond the control of Albaugh LLC or the seller. To the extent consistent with applicable law, all such risks shall be assumed by buyer.

To the extent consistent with applicable law, Albaugh takes no responsibility for unexpected results occurring due to the tank mixing of this product with oils, surfactants, liquid fertilizers or other pesticides.

## Limitation of Remedies

The exclusive remedy for tosses or damages resulting from this product (including claims based on contract, negligence, strict liability, or other legal theories), shall be limited to, at Albaugh s' election, one of the following:

- 1. Refund of purchase price paid by buyer or user for product bought, or
- 2. Replacement of amount of product used

Albaugh shall not be liable for losses or damages resulting from handling or use of this product unless Albaugh is promptly notified of such loss or damage in writing. To the extent consistent with applicable law, in no case shall Albaugh s be liable for consequential or incidental damages or losses.

The terms of the Warranty Disclaimer and Inherent Risks of Use above and this Limitation of Remedies cannot be varied by any written or verbal statements or agreements. No employee or sales agent of Albaugh or the seller is authorized to vary or exceed the terms of the Warranty Disclaimer or this Limitation of Remedies in any manner.