

# **GARLIC - DIRECT SEEDED GARLIC (CALIFORNIA ONLY)**

## General Information

### PRODUCT USE INFORMATION

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

### PRODUCT USE RESTRICTIONS:

THE FOLLOWING USE RESTRICTIONS APPLY TO ALL REGISTERED USES OF THIS PRODUCT: (NOTE: SEE DIRECTIONS FOR USE FOR INDIVIDUAL CROPS FOR CROPSPECIFIC

### USE RESTRICTIONS.)

??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.

??DO NOT apply to irrigation water or water used for domestic purposes.

??DO NOT use any plants treated with Oxyfluorfen 2E Herbicide for feed or forage.

??DO NOT feed or allow animals to graze on any areas treated with Oxyfluorfen 2E Herbicide.

??Oxyfluorfen 2E Herbicide should 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 2E Herbicide is phytotoxic to plant foliage.

??Some labeled crops are tolerant to over-the-top application of Oxyfluorfen 2E

Herbicide if applied during dormancy. DO NOT make over-the-top applications unless specifically allowed in crop-specific use directions.

??DO NOT apply Oxyfluorfen 2E Herbicide in enclosed greenhouses as foliage injury will result.

??Thoroughly flush spray equipment (tank, pump, hoses and boom) with clean water before and after each use. Residual Oxyfluorfen 2E Herbicide remaining in spray equipment may damage other crops. To assist removal of Oxyfluorfen 2E Herbicide residues in spray equipment, Latron AG-98 or Latron CS-7 may be added at the rate of 1 quart per 100 gallons of water during flushing.

??Use Oxyfluorfen 2E Herbicide only for label-listed purposes at their specified rates.

??DO NOT treat ditch banks or waterways with Oxyfluorfen 2E Herbicide.

## Application Methods and Recommended 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. Seedling weeds are controlled as they come in contact with the soil-applied herbicide during emergence.

Preemergence weed control is most effective when Oxyfluorfen 2E Herbicide 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 should 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 2E Herbicide and should occur within 3 to 4 weeks after application. For optimum results, Oxyfluorfen 2E Herbicide should be applied to prepared beds or soil surfaces that will be left undisturbed during the time for which weed control is desired. Cultural practices that disturb or redistribute surface soil following treatment with Oxyfluorfen 2E Herbicide such as cutting water furrows will reduce weed control effectiveness.

Application Rates and Rate Ranges: Where rate ranges are given, use the lower 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 2E Herbicide in tank mix with glyphosate). Because Oxyfluorfen 2E Herbicide 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 2E Herbicide 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 should 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 2E Herbicide using conventional low-pressure ground spray equipment with flat fan spray nozzles. Follow manufacturer's recommendation 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 2E Herbicide as a coarse, low-pressure spray in a volume of 20 or more gallons of spray per acre (broadcast basis). Follow manufacturer's recommendations for nozzle spacing and operating pressure. Spray should be directed 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).

The 2 forward nozzles should point forward and downward while the rear nozzles should point to the rear and downward. With either sprayer system, nozzles should be adjusted to cover the weed foliage but minimize contact with the crop. Do not apply with hollow cone nozzles.

**IMPORTANT:** Oxyfluorfen 2E Herbicide 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 the label are for broadcast 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 2E Herbicide 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 0.5fl oz (1 tablespoon) per gallon of spray. If making spot applications within an established crop, use coarse lowpressure sprays and direct the spray to the soil beneath the plants. To avoid crop injury, do not allow spray to contact leaves and stems of herbaceous plants or leaves or green stems of woody plants.

**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 2E Herbicide unless crop-specific use directions specifically allow and provide directions for aerial application.

**For Aerial Application in Fresno County, California Only**

**(From February 15 through March 31 Only)**

In addition to the directions for use for aerial application appearing above, the following guidelines are required between the dates of February 15 and March 31 for applications in the following geographic area:

North: Fresno County line

South: Fresno County line

East: State Highway 99

West: Fresno County line

Observe the following directions to minimize off-site movement during aerial application of Oxyfluorfen 2E Herbicide. Minimization of off-site movement is the responsibility of the grower, pest control advisor and aerial applicator.

A written recommendation must be submitted by or on behalf of the applicator to the Fresno County Agricultural Commissioner 24 hours prior to the application. This written recommendation must state the proximity of surrounding crops, and that conditions of each manufacturer's product label and the label have been satisfied.

Aerial application of Oxyfluorfen 2E Herbicide is limited to pilots who have successfully completed a Fresno County Agricultural Commissioner and California Department of Pesticide Regulation approved training program for aerial application of herbicides. All aircraft must be inspected, critiqued in flight and certified at a Fresno County Agricultural Commissioner approved fly-in. Test and calibrate spray equipment at intervals sufficient to ensure that proper rates are being applied during the commercial use season. Applicator must document such calibrations and testing. Demonstration of performance at Fresno County Agricultural Commissioner approved "fly-ins" constitutes such documentation; or other written records showing calculations and measurements of flight and spray parameters acceptable.

Do not apply this product by air earlier than 30 minutes prior to sunrise and/or later than 30 minutes after sunset without prior permission from the Fresno County Agricultural Commissioner.

#### CULTURAL CONSIDERATIONS

In order for Oxyfluorfen 2E Herbicide to provide maximum preemergence activity:

Prior to application, the bed or soil surface should 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 should occur within 3 or 4 weeks after application. The best results from Oxyfluorfen 2E Herbicide 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 2E Herbicide. 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.

## Limitations, Restrictions, and Exceptions

### GARLIC

#### Agricultural Use Requirements

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 48 hours.

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

- Coveralls
- Chemical-resistant footwear plus socks
- Chemical-resistant gloves made of any waterproof material
- Shoes plus socks

Cultural Considerations: For optimum preemergence weed control, the soil surface should be smooth and free of excessive trash (clippings, plant residues, etc.). Following application, treated beds should 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 Garlic (California Only)

#### Specific Use Directions

Application after planting but Prior to Garlic Emergence: Apply Oxyfluorfen 2E Herbicide 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 Information section of the label.

Postemergence and Directed Application: Apply Oxyfluorfen 2E Herbicide as a directed 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 2E Herbicide 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 the label.

Precautions:

Garlic Response to Preemergence Applications of Oxyfluorfen 2E Herbicide: Following a preemergence application of Oxyfluorfen 2E Herbicide, a chlorotic band around some of the leaves maybe observed after the first irrigation (or rainfall) following garlic emergence.

Garlic – Crop-Specific Precaution (Postemergence Application)

Postemergence applications of Oxyfluorfen 2E Herbicide 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 should 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 and is not recommended.
- Do not apply more than a total of 2 pints per acre of Oxyfluorfen 2E Herbicide per use season as a result of multiple applications.
- Do not apply within 60 days of harvest.
- In direct seeded garlic (except in California), do not apply Oxyfluorfen 2E Herbicide 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 2E Herbicide with oils, surfactants, liquid fertilizers or pesticides except as specified.
- 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.

#### Method

[Broadcast/Foliar Air](#)

[Directed](#)

[Broadcast/Foliar Air](#)

[Directed](#)

[Broadcast/Foliar Air](#)

[Directed](#)

[Broadcast/Foliar Air](#)

[Directed](#)

[Broadcast/Foliar Air](#)

[Directed](#)

#### Pre-Harvest Interval

60 days

#### Rates

[field rates 0](#)

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#### Restricted Entry Interval

48 hours

#### Timings

[Postemergence \(Crop\)](#)

[Preemergence \(Crop\)](#)

[Preemergence \(Weed\)](#)

[Postemergence \(Weed\)](#)

Postplant