

# **ENLIST COTTON**

## General Information

### Product Information

Enlist One herbicide is a systemic herbicide that is intended for control of emerged annual and perennial broadleaf weeds. Enlist One is designed to be applied to crops containing Enlist traits. These are patented genes that provide tolerance to Enlist One. Certain other uses are also permitted, as specified in this label. Corn, soybeans, and cotton or any other crop without the Enlist trait will be seriously damaged by foliar applications of Enlist One.

When this product is applied as directed and under the circumstances described, it controls annual and perennial broadleaf weeds listed in this label.

**Time to Symptoms on Susceptible Plants:** Initial symptoms include drooping leaves and epinasty, which typically occurs within 24 hours of foliar treatment. This is followed by chlorosis, necrosis, further leaf/stem malformation and, growth inhibition. Complete death and desiccation of susceptible plants occurs within 3-5 weeks.

**Stage of Broadleaf Weeds:** Annual weeds are easiest to control when they are small. Best control of most perennial weeds is obtained when treatment is made at late growth stages approaching maturity. Refer to the annual and perennial rate tables for specific weeds. When treating weeds with disease or insect damage, weeds heavily covered with dust, or weeds under poor growing conditions, reduced weed control may result.

**Rainfastness:** Heavy rainfall soon after application may wash off this product from the foliage.

**Spray Coverage:** For best results, spray coverage should be uniform and complete. Do not spray weed foliage to the point of runoff.

**Mode of Action:** 2,4-D, the active ingredient in this product, mimics the naturally occurring plant auxins and overloads the plant's auxin balance affecting vital processes, such as cell division and elongation, resulting in abnormal growth and plant death.

**Limited Soil Activity:** Though some suppression of annual weeds emerging soon after application may occur when this product is applied at higher rates within the rate range, optimum control is achieved when the majority of weeds are emerged at the time of application. Unemerged plants arising from unattached underground rhizomes or rootstocks of perennials will not be affected by the herbicide and will continue to grow.

**Biological Degradation:** Degradation of this product is primarily a biological process carried out by soil microbes.

#### Herbicide Resistance Management

2,4-D, the active ingredient in this product, is a Group 4 herbicide (synthetic auxin). Some naturally occurring weed biotypes that are tolerant (resistant) to 2,4-D may exist due to genetic variability in a weed population. Where resistant biotypes exist, the repeated use of herbicides with the same modes of action can lead to the selection for resistant weeds. Certain agronomic practices delay or reduce the likelihood that resistant weed populations will develop and can be utilized to manage weed resistance once it occurs.

Proactively implementing diversified weed control strategies to minimize selection for weed populations resistant to one or more herbicides is a best practice. A diversified weed management program may include the use of multiple herbicides with different modes of action and overlapping weed spectrum with or without tillage operations and/or other cultural practices. Research has demonstrated that using the labeled rate and directions for use is important to delay the selection for resistance.

The continued availability of this product depends on the successful management of the weed resistance program; therefore, it is very important to perform the following actions.

To aid in the prevention of developing weeds resistant to this product, the following steps should be followed:

- Scout fields before application to ensure herbicides and rates will be appropriate for the weed species and weed sizes present.
- Apply full rates of Enlist One in combination with another herbicide with a different mode of action and overlapping spectrum (See Tank Mix section). Choose the rate for the most difficult to control weed in the field at the specified time (correct weed size) to minimize weed escapes.
- Scout fields after application to detect weed escapes or shifts in weed species.
- Report any incidence of non-performance of this product against a particular weed species to your Dow AgroSciences retailer, representative or call 1-855-ENLIST-1(1-855-365-4781)
- If resistance is suspected, treat weed escapes with an herbicide having a mode of action other than Group 4 and/or use non-chemical methods to remove escapes, as practical, with the goal of preventing further seed production.

Additionally, users should follow as many of the following herbicide resistance management practices practical:

- Use a broad spectrum soil-applied herbicide with other modes of action as a foundation in a weed control program.
- Utilize sequential applications of herbicides with alternative modes of action.
- Rotate the use of this product with non-Group 4 herbicides.
- Incorporate non-chemical weed control practices, such as mechanical cultivation, crop rotation, cover crops and weed-free crop seeds, as part of an integrated weed control program.
- Thoroughly clean plant residues from equipment before leaving fields suspected to contain resistant weeds.
- Avoid using more than two applications of Enlist One and any other Group 4 herbicide within a single growing season unless in conjunction with another mode of

action herbicide with overlapping spectrum.

- Manage weeds in and around fields, during and after harvest to reduce weed seed production.

Contact the local agricultural extension service, Dow AgroSciences representative, ag retailer or crop consultant for further guidance on weed control practices as needed.

#### Susceptible Plants

Do not apply under circumstances where spray drift may occur to food, forage, or other plantings that might be damaged or crops thereof rendered unfit for sale, use or consumption. Do not allow contact of herbicide with foliage of desirable plants; including cotton and trees, because severe injury or destruction may result. Small amounts of spray drift that may not be visible may injure susceptible broadleaf plants. Before making an application, please refer to your state's sensitive crop registry (if available) to identify any commercial specialty or certified organic crops that may be located nearby.

At the time of application, the wind cannot be blowing toward adjacent commercially grown tomatoes and other fruiting vegetables (EPA crop group 8), cucurbits (EPA crop group 9), grapes and cotton.

#### Application Equipment and Application Methods

Chemigation: Do not apply this product through any type of irrigation system.

Aerial Application: Do not aerially apply this product.

Apply Enlist One with the following application equipment: Apply spray solutions in properly maintained and calibrated equipment capable of delivering desired volumes.

#### Ground Broadcast Spray

Boom, pull-type sprayer, floaters, pick-up sprayers, spray coupes and other ground broadcast equipment. Use the minimum boom height based upon the nozzle manufacturer's specifications. Spray drift potential is increased as boom height increases. Spray drift can be minimized if nozzle height is not greater than maximum height recommended by nozzle manufacturer for the nozzle selected.

Use the specified rates of this product as a broadcast spray unless otherwise

specified. As the density of weeds increases, increases spray volume within the specified range to ensure complete coverage. Check for even distribution of spray droplets.

### Uses

Unless otherwise specified, applications may be made to control any weeds listed in the annual and perennial tables.

### Precautions:

- The use directions are based upon a clean start at planting by using a burndown application or tillage to control existing weeds before crop emergence.
- In no-till and stale seedbed systems, a preplant burndown application of this product is recommended to control existing weeds prior to crop emergence.

### Restrictions

- For any crop not listed in this section, do not apply less than 30 days prior to planting.
- Pre-harvest Interval (PHI) For broadcast burndown or preplant treatments, do not harvest or feed treated vegetation for 8 weeks following application unless otherwise specified.
- Do not irrigate treated fields for at least 24 hours after application of Enlist One.
- Do not make application of Enlist One if rain is expected in the next 24 hours.
- Enlist One is approved for use in the following states: Alabama, Arkansas, Arizona, Colorado, Delaware, Florida, Georgia, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maryland, Michigan, Minnesota, Mississippi, Missouri, Nebraska, New Jersey, New Mexico, New York, North Carolina, North Dakota, Oklahoma, Ohio, Pennsylvania, South Carolina, South Dakota, Tennessee, Texas, Virginia, West Virginia and Wisconsin. Do not use in any other state.
- Do not use Enlist One in the following counties: Arizona (Yuma, Pinal, Maricopa, Pima, La Paz and Santa Cruz); Florida (Brevard, Broward, Charlotte, Collier, DeSoto, Glades, Hardee, Hendry, Highlands, Hillsborough, Indian River, Lee, Manatee, Martin, Miami-Dade, Okeechobee, Orange, Osceola, Palm Beach, Polk, Sarasota, and St. Lucie); Tennessee (Wilson).

## Limitations, Restrictions, and Exceptions

### Enlist Cotton

These directions are for use on Enlist Cotton. Information on crop varieties containing these traits may be obtained from your seed supplier.

### Carriers and Spray Volumes

Apply in a broadcast spray volume of water ranging from 10 to 15 gallons per acre for best results. Do not substitute water with nitrogen solutions as carrier. See the Spray Drift Management section for specific information on spray nozzles, spray pressure, speed, boom heights, etc., and other application information.

### Preplant (Burndown) Through Preemergence

Make a single application of 1.5 to 2.0 pints of Enlist One per acre. Use the upper end of the rate range for less susceptible weeds, more mature weeds, or weeds under stress. Refer to Annual and Perennial Weeds sections for specific weed height and use rate information. Apply any time after planting, but before cotton emerges, to control weed seedlings or existing cover crops.

### Postemergence

Apply 1.5 to 2.0 pints of Enlist One per acre. Apply when weeds are small and any time after cotton emergence but no later than full flowering (mid-bloom stage). Refer to Annual and Perennial Weeds sections for specific weed height and use rate information. Make one to two postemergence applications with a minimum of 12 days between applications.

### Precautions and Restrictions:

- These use directions are only for cotton identified as containing the Enlist trait.
- Do not graze treated cotton.
- Do not harvest for forage or hay.
- Do not apply more than one preemergence application and no more than two postemergence applications per use season.
- Do not apply Enlist One to cotton later than the mid-bloom stage.
- Do not aerially apply this product.

### Method

#### [Broadcast/Foliar Ground](#)

#### Pre-Harvest Interval

30 days

Rates

[field\\_rates 0](#)

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Restricted Entry Interval

48 hours

Timings

[Postemergence \(Crop\)](#)

[Preemergence \(Crop\)](#)

[Preplant](#)

[Postemergence \(Weed\)](#)