

# **FOREST MANAGEMENT - SITE PREPARATION - FOLIAGE SPRAY**

## General Information

### PRODUCT INFORMATION

This product contains isooctyl ester of 2,4-D. In cropland, this herbicide is for controlling hard-to-kill weeds, bindweed, thistle, smartweeds, wild garlic, curled dock, tansy ragwort and wild onions.

**INJURY TO CROPS FROM THIS HERBICIDE MAY OCCUR. IF YOU ARE NOT PREPARED TO ACCEPT SOME DEGREE OF CROP INJURY, DO NOT USE THIS PRODUCT.**

Crop varieties vary in response to 2,4-D and some are easily injured. Apply this herbicide to varieties known to be tolerant to 2,4-D. If you are uncertain concerning tolerant varieties or local use situations that may affect crop tolerance to 2,4-D, consult your seed company, state Agricultural Extension Service or qualified crop consultant for advice.

### WEED RESISTANCE

Any weed population may contain plants that are naturally resistant to 2,4-D, the active ingredient in this product, and to other herbicides with the same mode of action. **ATTENTION:** These resistant weed biotypes will not be controlled by this product. Consult advisors such as your local agricultural extension service for agronomic management practices to minimize the occurrence of 2,4-D resistance and considerations for supplemental control measures.

### Weed Management

To minimize the occurrence of 2,4-D resistant biotypes, observe the following general weed management practices:

- Scout application site before and after herbicide applications.
  - Start with a clean application site, using either a burndown herbicide application or tillage.
  - Control weeds early when they are relatively small.
  - Add other herbicides (e.g. a selective and/or a residual herbicide) and cultural practices (e.g. tillage or crop rotation) where appropriate.
  - Utilize the specified label rate for the most difficult to control weed in your field.
- Avoid tank mixtures with other herbicides that reduce this product's efficacy

(through antagonism), or tank mixture directions that encourage application rates of this product below the label directions.

- Control weed escapes and prevent weeds from setting seeds.
- Clean equipment before moving from field to field to minimize the spread of weed seed or plant parts.
- Report any incidence of repeated non-performance of this product on a particular weed to your Nufarm representative, local retailer, or county extension agent.

#### Management of 2,4-D-Resistant Biotypes

Since the occurrence of new 2,4-D weeds cannot be determined until after product use and scientific confirmation, manufacturer is not responsible for any losses that may result from the failure of this product to control 2,4-D resistant weed biotypes. The following good agronomic practices are recommended to reduce the spread of confirmed 2,4-D resistant biotypes:

- If a naturally occurring resistant biotype is present in your application site, this product should be tank-mixed or applied sequentially with an appropriately labeled herbicide with a different mode of action to achieve control.
- Cultural and mechanical control practices (e.g. crop rotation or tillage) may also be used as appropriate.
- Scout treated application site after herbicide applications and control escaping weeds including resistant biotypes before they set seed.
- Thoroughly clean equipment before leaving fields known to contain resistant biotypes.

#### PRODUCT RESTRICTIONS

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

Do not use in or near a greenhouse.

Do not use the same spray equipment for other purposes unless thoroughly cleaned. Crops contacted by sprays or spray drift may be killed or suffer significant stand loss with extensive quality and yield reduction.

#### MIXING INSTRUCTIONS

Add 1/2 the required amount of water to the spray tank, then add this product with agitation, and finally, the balance of the water with continued agitation. This material forms an emulsion in water, not a solution. This tends to separate on standing. Provide agitation to prevent such separation and insure uniform spray mixtures.

## COMPATIBILITY

If this herbicide is to be tank mixed with fertilizers or with other pesticides, test compatibility prior to mixing. To test for compatibility, use a small container and mix a small amount (0.5 to 1 quart) of spray, combining all ingredients in the same ratio as the anticipated use. If any indications of physical incompatibility develop, do not use this mixture for spraying. Indications of incompatibility usually will appear within 5 to 15 minutes after mixing.

Read and follow the label of each tank mix product used for precautionary statements, directions for use, geographic and other restrictions.

## COMBINATION WITH LIQUID NITROGEN FERTILIZER

Use 1/3 to 1/2 pint of this product per acre for weeding and feeding corn, small grains or grass pastures as directed on this label. Use fertilizer at rates recommended by supplier or Extension Service Specialist.

Fill the spray tank about half full with the liquid fertilizer, then add this product with vigorous agitation, and complete filling the tank with fertilizer. Apply immediately and continue agitation in the spray tank during application. Application during very cold weather (near freezing) is not advisable. Do not allow mixture to stand overnight. Incompatibility may be encountered with some fertilizer brands or under some environmental conditions. If in doubt, test a small sample in the dilution ratio planned for application.

NOTE: Fertilizers can increase foliage contact burn of herbicides. Reducing the fertilizer rate and concentration will reduce the hazard of leaf burn.

## APPLICATION INSTRUCTIONS

Apply with calibrated air or ground equipment using sufficient spray volume to provide adequate coverage of target weeds or as otherwise directed in specific use directions.

For aerial application - Do not apply less than 2 gallon total spray volume per acre.

For ground applications - Do not apply less than 10 gallon total spray volume per acre.

The higher spray volumes will be needed under the following circumstances:

- For difficult to control vegetation,

- For large vegetation,
- Under conditions where control is more difficult, or
- When tank mixing with oils.

### Rate Ranges and Application Timing

The lower dosages given will be satisfactory for young, succulent growth of sensitive weed species. For less sensitive species and under conditions where control is more difficult, the higher dosages will be needed. Apply this product during warm weather when weeds are young and actively growing.

### Spot Treatments

To prevent misapplication, apply spot treatments with a calibrated boom or with hand sprayers using a fixed spray volume per 1,000 square feet as indicated below.

**Hand-Held Sprayers:** Hand-held sprayers may be used for spot applications of this product. Apply the spray uniformly and at a rate equivalent to a broadcast application. Application rates in the table are based upon the application rate for an area of 1,000 square feet. Mix the amount of this product (fl oz or mL) corresponding to the desired broadcast rate in 1 to 3 gallons of spray. To calculate the amount of product required for larger areas, multiply the table value (fl oz or mL) by the thousands of square feet to be treated.

### 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. Susceptible crops include, but are not limited to, cotton, okra, flowers, grapes (in growing stage), fruit trees (foliage), soybeans (vegetative stage), ornamentals, sunflowers, tomatoes, beans, and other vegetables, or tobacco. Small amounts of spray drift that might not be visible may injure susceptible broadleaf plants.

### Other State and Local Requirements

Applicators must follow all state and local pesticide drift requirements regarding application of 2,4-D herbicides. Where states have more stringent regulations, they must be observed.

### Equipment

All aerial and ground application equipment must be properly maintained and calibrated using appropriate carriers or surrogates. The boom length must not

exceed 75% of the wingspan or 90% of the rotor blade diameter.

Release spray at the lowest height consistent with efficacy and flight safety. Do not release spray at a height greater than 10 feet above the crop canopy unless a greater height is required for aircraft safety. This requirement does not apply to forestry or rights-of-way applications.

When applications are made with a crosswind, the swath will be displaced downwind. The applicator must compensate for this by adjusting the path of the aircraft upwind.

Do not apply with a nozzle height greater than 4 feet above the crop canopy.

2,4-D esters may volatilize during conditions of low humidity and high temperatures. Do not apply during conditions of low humidity and high temperatures.

Limitations, Restrictions, and Exceptions

## SITE PREPARATION

Foliage Spray: To control Alder before planting forest tree seedlings, apply 2-3/4 pints of this product plus 2 quarts fuel oil in 8 to 25 gallons of water per acre, or sufficient spray solution for adequate coverage. Apply after most Alder leaves are full size. To increase penetration, 2 to 4 quarts per acre of diesel, fuel oil, kerosene, or a suitable approved agricultural surfactant at label rates may be added to the spray mixture.

The maximum rate per broadcast application is 5.8 pints (4 lbs 2,4-D ae) per acre, limited to one application per year.

Consult your regional or extension forester or state herbicide specialist for recommendations to fit local conditions.

Method

[Foliar spray](#)

Rates

[field rates 0](#)

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Restricted Entry Interval

12 hours

Timings

Before planting most tree seedlings, after most alder leaves are full size.