

# **SPOT TREATMENT OF UNDESIRABLE HARDWOOD VEGETATION - UNDESIRABLE BRUSH AND HARDWOODS**

## General Information

### RESTRICTIONS

Do not use on food or feed crops. Do not use on Christmas trees. Do not treat irrigation ditches, or water used for crop irrigation or for domestic uses. Keep from contact with fertilizers, insecticides, fungicides, and seeds to prevent unintentional exposure of desirable vegetation to this product. Do not apply or drain or flush equipment on or near sensitive desirable plants, or on areas where their roots may extend, or in locations where the chemical may be washed or moved into contact with their roots. Do not side trim desirable vegetation with this product. Do not allow spray to drift to desirable plants.

Clean application equipment after using this product by thoroughly flushing with water.

### PRODUCT INFORMATION

This product is a surfactant free aqueous solution to be mixed in water and applied as a post-emergent spray for control of most annual and perennial grasses, broadleaf weeds, vines and brambles, and hardwood brush and trees for forestry site preparation and release of conifers from woody and herbaceous competition. This product may be used for selective woody and herbaceous weed control in natural regeneration of certain conifers (see pine release). This product may also be mixed in water and used for stump and cut-stem treatment for control of unwanted woody vegetation. This product can be applied along forest roads to control undesirable woody vegetation.

This product is also used for the control of undesirable vegetation along non-irrigation ditchbanks and for the establishment and maintenance of wildlife openings, except in the state of California. See use directions for stump and cut stem treatments and herbaceous weed control and use directions for spot treatment of undesirable hardwood vegetation.

This product may be applied on forestry sites that contain areas of temporary surface water caused by the collection of water between planting beds, in

equipment ruts, or in other depressions created by forest management activities, except in the states of California and New York. It is permissible to treat drainage ditches, intermittent drainage, intermittently flooded low lying sites, seasonally dry flood plains, and transitional areas between upland and lowland sites when no water is present, except in the states of California and New York. Only the edge of drainage ditches can be treated for drainage ditches that contain water. It is also permissible to treat marshes, swamps, and bogs after water has receded, as well as seasonally dry flood deltas, except in the states of California and New York. Do not make applications to natural or manmade bodies of water such as lakes, reservoirs, ponds, streams, rivers and canals.

#### SYMPTOMOLOGY:

This product is readily absorbed through foliage and roots and is translocated rapidly throughout the plant, with accumulation in the meristematic regions. Treated plants stop growing soon after spray application. Chlorosis first appears in the youngest leaf tissue. In perennials, the herbicide is translocated into the roots, thus preventing most resprouting. Chlorosis and tissue necrosis may not be apparent in some plant species for several weeks after application. Woody plants, brush, and trees normally do not display the full extent of herbicide control until several months following application.

#### APPLICATION INSTRUCTIONS MANAGING OFF-TARGET MOVEMENT

##### Aerial Applications:

(1) Applicators are required to use a Coarse or coarser droplet size (ASABE S572) or, if specifically using a spinning atomizer nozzle, applicators are required to use a volume mean diameter (VMD) of 385 microns or greater for release heights below 10 feet; Applicators are required to use a Very Coarse or coarser droplet size or, if specifically using a spinning atomizer nozzle, applicators are required to use a VMD of 475 microns or greater for release heights above 10 feet; Applicators must consider the effects of nozzle orientation and flight speed when determining droplet size.

(2) Applicators are required to use upwind swath displacement.

(3) The boom length must not exceed 60% of the wingspan or 90% of the rotor blade diameter to reduce spray drift.

(4) Applications with wind speeds less than 3 mph and with wind speeds greater

than 10 mph are prohibited.

(5) Applications into temperature inversions are prohibited.

**Aerial Application Methods and Equipment:** Use 2 or more gallons of water per acre. The actual minimum spray volume per acre is determined by the spray equipment used. Use adequate spray volume to provide accurate and uniform distribution of spray particles over the treated area and to avoid spray drift.

**Ground Boom Applications:**

(1) Applicators are required to use a nozzle height below 4 feet above the ground or plant canopy and Coarse or coarser droplet size (ASABE S572) or, if specifically using a spinning atomizer nozzle, applicators are required to use a volume mean diameter (VMD) of 385 microns or greater.

(2) Applications with wind speeds greater than 10 mph are prohibited.

(3) Applications into temperature inversions are prohibited.

**Ground Application (Broadcast):** Use 5 or more gallons of water per acre. The actual minimum spray volume per acre is determined by the spray equipment used. Use adequate spray volume to provide accurate and uniform distribution of spray particles over the treated area and to avoid spray drift.

**HELICOPTER SPRAY EQUIPMENT:**

Thoroughly mix the required amount of this product in 5 to 30 gallons of water per acre and uniformly apply with properly calibrated aerial equipment. A suitable nonionic surfactant may be added to the spray solution to enhance control of undesirable vegetation. All precautions should be taken to minimize or eliminate spray drift. Applications should not be made under windy or gusty conditions. The use of controlled droplet booms and nozzle configurations is recommended. A drift control agent may be added at the label rate. A foam reducing agent may be added at the recommended label rate, if needed.

**RESTRICTIONS:** Do not make applications by fixed wing aircraft. Maintain adequate buffer zones. Thoroughly clean application and mixing equipment, including landing gear, immediately after use. Prolonged exposure of this product to uncoated steel (except stainless steel) surfaces may result in corrosion and failure of the exposed part.

**GROUND OPERATED SPRAY EQUIPMENT:**

Thoroughly mix and apply the required amount of this product in 5 to 100 gallons of water per acre. A suitable nonionic surfactant may be added to the spray solution to enhance control of undesirable vegetation. A drift control agent and a foam reducing agent may be added at the drift control agent or foam reducing agent's label rates, if needed. If desired, a spray pattern indicator may be added at the spray pattern indicator product's label rate.

For best results, uniformly cover the foliage of the vegetation to be controlled with the spray solution.

**RESTRICTIONS:** Do not spray under windy or gusty conditions. Maintain adequate buffer zones.

Clean application and mixing equipment after using this product by thoroughly flushing with water.

**DIRECTED FOLIAR OR SPOT SPRAY EQUIPMENT:**

When making directed or spot spray applications with helicopter or ground spray equipment, or low-volume hand operated spray equipment, thoroughly mix a solution of 1 to 5 percent by volume of this product and a minimum of 1/4 percent by volume nonionic surfactant in water.

To mix the spray solution, add the volume of this product and nonionic surfactant indicated in the table below to the desired amount of water.

For best results, uniformly cover the foliage of the vegetation to be controlled with the spray solution. Avoid making applications directly to desirable conifers. For low volume directed applications on bigleaf maple, apply using a 2.5% by volume spray solution.

RESTRICTIONS: Do not over apply causing runoff from the treated foliage. Avoid direct application to desired plant species as injury may occur. Do not exceed dosage rate per acre.

#### WEEDS CONTROLLED

This product will provide post-emergence control and some residual control of the following target vegetation species. Degree of control is both species and rate dependent. This product must be used only in accordance with the directions for use on this label.

#### Limitations, Restrictions, and Exceptions

#### USE NUFARM POLARIS AC HERBICIDE FOR SPOT TREATMENT OF UNDESIRABLE HARDWOOD VEGETATION

This product may be used as a directed foliar or cut stem application to control undesirable brush and hardwoods in the management of stands of all ages for the conifer species listed in the broadcast application section. Refer to mixing and application instructions in the directed foliar or cut stem sections above for proper use rates, equipment, and application techniques. Ensure that the maximum labeled rates per acre listed for crop species are not exceeded. Cut stem applications may be used for spot treatment of undesirable hardwoods in Ponderosa pine stands using 12 oz or less of product per acre.

Avoid direct application to desired plant species as injury may occur. Injury may occur to non-target or desirable hardwoods or conifers if they extend from the same root system or their root systems are grafted to those of the treated tree or if their roots extend into the treated zone.

#### Method

[Spot treatment](#)

[Foliar spray](#)

[Directed](#)

#### Rates

[field\\_rates 0](#)

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Restricted Entry Interval

48 hours

Timings

[Postemergence \(Weed\)](#)