

# **SITE PREPARATION TREATMENTS (CALIFORNIA RED FIR AND WHITE FIR)**

## General Information

### IMPORTANT

DO NOT use on food or feed crops. DO NOT use on Christmas trees. DO NOT apply this product within one-half mile upstream of an active potable water intake in flowing water (i.e., river, stream, etc.) or within one-half mile of an active potable water intake in a standing body of water, such as a lake, pond or reservoir. DO NOT apply to water used for irrigation except as described in APPLICATION TO WATERS USED FOR IRRIGATION section of the label. 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 drain or flush equipment on or near desirable trees or other plants, or on areas where their roots may extend, or in locations where the treated soil may be washed or moved into contact with their roots. DO NOT apply to lawns. DO NOT side trim desirable vegetation with this product unless severe injury and plant death can be tolerated. Prevent drift of spray to desirable plants. Clean application equipment after using this product by thoroughly flushing with water.

### RESISTANCE

When herbicides with the same mode of action are used repeatedly over several years to control the same weed species in the same application site, naturally occurring resistant weed biotypes may survive a correctly applied herbicide treatment, propagate and become dominant in that site. These resistant weed biotypes may not be adequately controlled. Using herbicides with different modes of action within these sites can aid in delaying the proliferation and possible dominance of herbicide resistant weed biotypes. It is advisable that each user of this product check with the local extension service for a current list of resistant weed biotypes.

## PRODUCT INFORMATION

Alligare Imazapyr 4 SL is an aqueous solution intended to be mixed in water and surfactants(s) and applied as a post-emergent spray for control of most annual and perennial grasses, broadleaf weeds, vines, brambles, hardwood brush, 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 vegetation. This product can be used for the control of undesirable vegetation along non-irrigation ditchbanks and for the establishment and maintenance of wildlife openings. 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 state of 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 state of 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 state of New York.

When applied postemergence to weeds, Alligare Imazapyr 4 SL will control most annual and perennial grasses and broadleaf weeds in addition to many brush and vine species. Alligare Imazapyr 4 SL will provide residual control of labeled weeds which germinate in the treated areas. Postemergence application with a surfactant is the method of choice in most situations, particularly for perennial weeds. For maximum affect, weeds should be growing vigorously at postemergence application and the spray solution should include a surfactant. Alligare Imazapyr 4 SL solutions may be broadcast by using ground or aerial equipment, or may be applied as a spot treatment by using low-volume techniques. In addition, Alligare Imazapyr 4 SL may be used for stump and cut stem treatments.

Alligare Imazapyr 4 SL controls vegetation by absorption through foliage and roots, from which it is translocated rapidly throughout the plant, where it accumulates in rapidly-growing meristematic tissue. Treated plants stop growing soon after spray treatment. Chlorosis (yellowing of plant tissue) first appears in the newest leaves and necrosis spreads from this point. In perennials, Alligare Imazapyr 4 SL is translocated into and kills the roots and underground storage tissues to prevent most regrowth. Chlorosis and tissue necrosis may not be apparent in some plant species for several weeks after application and may take months for various woody plants, brush and trees.

#### PRECAUTIONS FOR AVOIDING INJURY TO NON-TARGET PLANTS

Untreated desirable plants can be affected by root uptake of this product from treated soil. Injury or loss of desirable plants may result if this product is applied on or near desirable plants, on areas where their roots extend, or in locations where the treated soil may be washed or moved into contact with their roots. When making applications along shorelines where desirable plants may be present, caution should be exercised to avoid spray contact with their foliage or spray application to the soil in which they are rooted. Shoreline plants that have roots that extend into the water in an area where this product has been applied generally will not be adversely affected by uptake of the herbicide from the water.

If treated vegetation is to be removed from the application site, DO NOT use the vegetative matter as mulch or compost on or around desirable species.

Untreated trees can occasionally be affected by root uptake of this product through movement into the top soil. Injury or loss of desirable trees or other plants may

result if this product is applied on or near desirable trees or other plants, on areas where their roots extend or in locations where the treated soil may be washed or moved into contact with their roots.

## MIXING AND APPLICATION INSTRUCTIONS

### HELICOPTER EQUIPMENT:

Thoroughly mix the specified amount of Alligare Imazapyr 4 SL in 5 to 30 gallons of water per acre and apply uniformly with properly calibrated helicopter equipment. Use a nonionic surfactant to improve weed control. A drift control agent may be used at its specified label rate. An anti-foam agent may be added, if needed. Exercise all precautions to minimize or eliminate spray drift. Avoid applications during windy or gusty conditions. Use of a Microfoil boom, Thru-Valve boom, raindrop nozzles, controlled droplet booms and nozzle configurations is recommended. Maintain adequate buffer zones to minimize potential impacts to desirable vegetation.

**IMPORTANT: DO NOT** make applications by fixed wing aircraft.

Thoroughly clean mixing and application equipment by thoroughly flushing with water immediately after using this product. Prolonged exposure of uncoated/unpainted steel (except stainless steel) surfaces to this product may result in corrosion and failure of the exposed part. Maintaining painted surfaces may prevent corrosion.

### GROUND EQUIPMENT:

Thoroughly mix and apply the specified amount of Alligare Imazapyr 4 SL in 5 to 100 gallons of water per acre. Use a nonionic surfactant to enhance weed control. A drift control agent and an anti-foam agent may also be added at the specified label rates, if needed. If desired, a spray pattern indicator may be used at the specified label rate. To minimize spray drift, select proper nozzles to avoid spraying a fine mist, use pressures less than 50 psi and **DO NOT** spray under gusty or windy conditions (also refer to **SPRAY DRIFT MANAGEMENT** section). Maintain adequate buffer zones to minimize potential impacts to desirable vegetation.

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

## FOLIAR APPLICATIONS

### Low Volume Foliar:

For low volume, select proper nozzles to avoid over-application. Moisten, but do not drench target vegetation causing spray solution to run off. Proper application is critical to ensure desirable results. Best results are achieved when the spray covers the crown and approximately 70 percent of the plant.

### DIRECTED FOLIAR OR SPOT SPRAY EQUIPMENT:

For directed or spot spray applications with helicopter, ground equipment or low-volume hand-operated spray equipment, thoroughly mix 1.0 to 5.0% Alligare Imazapyr 4 SL by volume (v/v) in water with at least 1/4% nonionic surfactant by volume.

For optimum performance and efficacy, apply spray to uniformly cover the target vegetation foliage. Direct spray to avoid contacting desirable conifers. Avoid direct application to desired plant species as injury may occur.

**IMPORTANT: DO NOT** over apply to cause run-off from treated foliage. **DO NOT** exceed specified dosage rate per acre.

### Limitations, Restrictions, and Exceptions

## SITE PREPARATION TREATMENTS

Alligare Imazapyr 4 SL will control labeled grass and broadleaf weeds, vines, brambles, woody brush and trees on forest sites when applied before replanting the conifers.

Apply the specified rate of Alligare Imazapyr 4 SL per acre as a broadcast foliar spray for long-term control of labeled woody plants and residual control of herbaceous annual and perennial weeds. Within 4 to 6 weeks of treatment, herbaceous weeds will be controlled and may provide fuel to facilitate a site preparation burn for controlling conifers or other species tolerant to the herbicide.

For helicopter applications, apply the specified rate of Alligare Imazapyr 4 SL per acre in 5 to 30 gallons total spray solution. For mechanical ground sprays and backpack applications, apply the specified rate of Alligare Imazapyr 4 SL per acre in 5 to 100 gallons total spray solution. Use at least 1/2% percent by volume nonionic surfactant. Use the higher label rates of Alligare Imazapyr 4 SL and higher spray volumes to control especially dense, multi-layered canopies of hardwood stands or difficult to control species.

Tank mixes may be necessary to control conifers and other species that are tolerant to Alligare Imazapyr 4 SL. Observe all precautions and restrictions on the tank mix partner label. Always follow the most restrictive label. NOTE that some other products labeled for forest site preparation may kill plants such as legumes and blackberry that are desirable for wildlife habitat.

Where quick initial brown out (deadening of foliage) is desired for burning, apply a tank mixture of 16 to 32 fluid oz. Alligare Imazapyr 4 SL plus 16 to 64 fluid oz. Accord or 16 to 48 fluid oz. Garlon 4TM per acre. To control seedling pines, apply 16 to 32 fluid oz. Alligare Imazapyr 4 SL plus 3 to 4 quarts Accord. For site preparation, rates less than 24 oz. Alligare Imazapyr 4 SL will provide suppression of hardwood brush and trees; however, some resprouting may occur.

DO NOT plant seedlings of Black Spruce (*Picea mariana*) or White Spruce (*Picea glauca*) on sites that have been broadcast treated with Alligare Imazapyr 4 SL or into the treated zone of spot or banded applications for at least three months after treatment or injury may occur.

#### GRASSES:

- Bermudagrass; Johnsongrass; Lovegrass: Use higher labeled rates.
- Cogongrass: Use minimum of 24 oz. per acre.

#### VINES AND BRAMBLES:

- Honeysuckle; Wild rose: Use higher labeled rates.

#### WOODY BRUSH AND TREES:

- Ash; Birch; Cherry; Dogwood; Hickory; Mulberry; Tanoak: Use higher labeled rates.
- Blackgum; Cherry; Persimmon; Sourwood: Best control with applications prior to formation of fall leaf color.
- Mulberry: The degree of control may be species dependent.
- Oak: For Water oak (*Quercus nigra*), Laurel oak (*Q. lauriflora*), Willow oak (*Q. phellos*) and Live oak (*Q. virginiana*) use higher labeled rates.
- TiTi: Suppression only.

#### Method

[Broadcast/Foliar Air](#)

[Broadcast/Foliar Ground](#)

#### Rates

[field\\_rates 0](#)

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Restricted Entry Interval

48 hours

#### Timings

[Postemergence \(Weed\)](#)