

# Herbicide

For control of undesirable vegetation growing within certain aquatic sites, forestry sites, pasture/rangeland, nonagricultural lands, establishment and maintenance of wildlife openings, release of unimproved Bermudagrass and Bahiagrass, bareground weed control, for use under certain paved areas, industrial noncropland areas including railroad, utility, pipeline and highway rights-of-way, utility plant sites, petroleum tank farms, pumping installations, fence rows, storage areas, non-irrigation ditchbanks including grazed or hayed areas within these sites, roads and transmission lines.

## **ACTIVE INGREDIENT:**

Isopropylamine salt of Imazapyr (2-[4,5-dihydro-4-methyl-4- (1-methylethyl)-5-oxo-1H-imidazol-2-yl]-3-pyridinecarboxylic acid)\* 53.10%

OTHER INGREDIENTS: 46.90%

TOTAL: 100.00%

\*Equivalent to 43.3% 2-[4,5-dihydro-4-methyl-4-(1-methylethyl)-5-oxo-1H-imidazol-2-yl]-3-pyridinecarboxylic acid or 4 pounds acid per gallon.

# KEEP OUT OF REACH OF CHILDREN CAUTION / PRECAUCION

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand this label, find someone to explain it to you in detail.)

SEE NEXT PAGE FOR FIRST AID AND ADDITIONAL PRECAUTIONARY STATEMENTS

For Medical Emergencies, Call (877) 325-1840
For Chemical Spill, Leak, Fire, or Exposure, Call CHEMTREC (800) 424-9300

Have the product container label with you when calling a poison control center or doctor or going for treatment.

In the State of New York, Aquatic Uses are Not Allowed.

EPA Reg. No. 228-570



Net Contents 2.5 Gal. (9.46 L)



# PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS CAUTION / PRECAUCION

No human or domestic animal hazard statements are required. Follow the instructions for Personal Protective Equipment and User Safety Recommendations

# PERSONAL PROTECTIVE EQUIPMENT (PPE):

Mixers, loaders, applicators and other handlers must wear:

- · Long-sleeved shirt and long pants,
- · Shoes plus socks
- Chemical-resistant gloves for mixers and loaders, plus applicators using handheld equipment.

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry. Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. DO NOT reuse them.

#### **Engineering Controls**

Pilots must use an enclosed cockpit that meet the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d) (6)].

# USER SAFETY RECOMMENDATIONS

## Users should:

- Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

# **ENVIRONMENTAL HAZARDS**

This product is toxic to plants. Drift and run-off may be hazardous to plants in water adjacent to treated areas. DO NOT apply to water except as specified in this label. Treatment of aquatic weeds may result in oxygen depletion or loss to decomposition of dead plants. DO NOT treat more than one half the surface area of the water in a single operation and wait at least 10 to 14 days between treatments. Begin treatments along the shore and proceed outward in bands to allow aquatic organisms to move into untreated areas. DO NOT contaminate water when disposing of equipment; washwaters or rinsate. This pesticide is toxic to vascular plants and must be used strictly in accordance with the drift precautions of the label.

#### PHYSICAL AND CHEMICAL HAZARDS

Spray solutions of this product should be mixed, stored, and applied only in stainless steel, fiberglass, plastic, and plastic-lined steel containers. DO NOT mix, store, or apply this product or spray solutions of this product in unlined steel (except stainless steel) containers or spray tanks.

# **DIRECTIONS FOR USE**

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

DO NOT apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application.

# AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

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, including plants, soil, or water, is:

- coveralls
- shoes plus socks
- chemical-resistant gloves made of any waterproof material
- · protective eyewear

# NON-AGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard (WPS) for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries, or greenhouses.

DO NOT enter or allow others to enter treated areas until sprays have dried.

# PRODUCT INFORMATION

This product is an aqueous solution to be mixed with water and a surfactant and applied as a spray solution to control undesirable vegetation growing within certain aquatic sites, forestry sites, pasture/rangeland, and nonagricultural lands. Aquatic sites consist of standing and flowing water, estuarine/marine, wetland, and riparian areas. Nonagricultural lands include private, public and military land as follows: uncultivated nonagricultural areas (including airports, highway, railroad and utility rights of way and sewage disposal areas), uncultivated agricultural areas – noncrop producing (including farmyards, fuel storage areas, fence rows, nonirrigation ditch banks and barrier strips), industrial sites – outdoor (including lumber yards, pipeline and tank farms) and natural areas (including wildlife management areas, wildlife openings, wildlife habitats, recreation areas, campgrounds, trailheads, and trails). This product may also be used for the release of unimproved Bermudagrass and Bahiagrass, for bareground weed control, and for use under certain paved surfaces.

Herbicidal Activity: This product will control most annual and perennial grasses and broadleaf weeds in addition to many brush and vine species with some residual control of undesirable species that germinate above the waterline. This product is readily absorbed through emergent leaves and stems and is translocated rapidly throughout the plant, with accumulation in the meristematic regions. For maximum activity, weeds must be growing robustly at the time of application, and the spray solution must include a surfactant (see ADJUVANTS section for specific use directions). Treated plants stop growing soon after spray application. Chlorosis appears first in the newest leaves, and necrosis spreads from this point. In perennials, the herbicide is translocated into, and kills, underground or submerged storage organs, which prevents regrowth. Chlorosis and tissue necrosis may not be apparent in some plant species until two or more weeks after application. Complete kill of plants may not occur for several weeks. Applications of this product are rainfast one hour after treatment.

# RESTRICTIONS

#### Maximum Rate - Annual

• DO NOT apply more than 48 fl. oz. of this product (1.5 lbs. (ae) imazapyr) per acre per year.

#### Maximum Rate - Single Application

• DO NOT apply more than 48 fl. oz. of this product (1.5 lbs. (ae) imazapyr) per single application.

#### **Maximum Number of Applications Per Year**

• DO NOT apply more than 4 applications per year when using reduced application rates.

#### Minimum Retreatment Interval

• DO NOT make broadcast applications more than 14 days apart.

DO NOT use on food or feed crops.

**DO NOT** apply this product to water within 0.5 miles upstream of an active potable water intake in flowing water (i.e. river, stream, etc.) or within 0.5 miles of an active potable water intake in a standing body of water, including a lake, bond or reservoir.

DO NOT apply to water used for irrigation except as described in USE PRECAUTIONS AND RESTRICTIONS section of this label.

Keep from contact with fertilizers, insecticides, fungicides and seeds.

**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 use on lawns, walks, driveways, tennis courts.

**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.

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.

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

#### Nonagricultural Lands and Forestry Sites

- DO NOT apply more than 48 fl. oz. of this product (1.5 lbs. (ae) imazapyr) per acre per year.
- DO NOT apply more than 48 fl. oz. of this product (1.5 lbs. (ae) imazapyr) per single application.
- DO NOT apply more than 4 applications per year when using reduced application rates.
- DO NOT make broadcast applications more than 14 days apart.

#### Pasture/Rangeland Sites

- DO NOT apply more than 24 fl. oz. of this product (0.75 lbs. (ae) imazapyr) per acre per year.
- DO NOT apply more than 24 fl. oz. of this product (0.75 lbs. (ae) imazapyr) per single application.
- DO NOT apply more than 4 applications per year when using reduced application rates.
- DO NOT treat more than 1 /10 of the available area to be grazed or cut for hay.
- · For spot treat only.

#### **Aquatic Sites**

- DO NOT apply more than 48 fl. oz. of this product (1.5 lbs. (ae) imazapyr) per acre per year.
- DO NOT apply more than 48 fl. oz. of this product (1.5 lbs. (ae) imazapyr) per single application.
- DO NOT apply more than 4 applications per year when using reduced application rates.
- DO NOT make broadcast applications more than 14 days apart.
- NO application to Aquatic Sites in New York State.

Aerial application - Aerial application to aquatic sites is restricted to helicopter only.

Irrigation water - Application to water used for irrigation that results in residues greater than 1.0 part per billion (ppb) MUST NOT be used for irrigation purposes for 120 days after application or until residue levels of this product are determined by laboratory analysis or other appropriate means of analysis to be 1.0 ppb or less. When applications are made within 500 feet of an active irrigation intake, DO NOT irrigate for at least 24 hours following application to allow for dissipation.

Quiescent or Slow-moving Waters - In lakes and reservoirs, DO NOT apply this product within 1 mile of an active irrigation water intake during the irrigation season. Applications less than 1 mile from an active irrigation water intake may be made during the off-season, provided that the irrigation intake will remain inactive for a minimum of 120 days after application or until residue levels of this product are determined by laboratory analysis or other appropriate means of analysis to be 1.0 ppb or less.

Restrictions for potable water intakes - DO NOT apply this product directly to water within 0.5 miles upstream of an active potable water intake in flowing water (i.e. river, stream, etc.) or within 0.5 miles of an active potable water intake in a standing body of water including a lake, pond or reservoir. To make aquatic applications around and within 0.5 miles of active potable water intakes, the water intake must be turned off during application and for a minimum of 48 hours after the application. These aquatic applications may be made only in the cases where there are alternative water sources or holding ponds that would permit the turning off of an active potable water intake for a minimum period of 48 hours after the applications.

**NOTE:** Existing potable water intakes that are no longer in use, including those replaced by connections to wells or a municipal water system, are not considered to be active potable water intakes. This restriction does not apply to intermittent, inadvertent overspray of water in terrestrial use sites.

**Permitting** - Consult local state fish and game agency and water control authorities before applying this product to public water. Permits may be required to treat such water.

Public waters - Application of this product to water can only be made by federal or state agencies, including Water Management District personnel, municipal officials, and the U.S. Army Corps of Engineers, or those applicators who are licensed or certified as aquatic pest control applicators and are authorized by the state or local government. Treatment to other than non-native invasive species is limited to only those plants that have been determined to be a nuisance by a federal or state government entity.

**Private waters** - Applications may be made to private waters that are still, including ponds, lakes and drainage ditches where there is minimal or no outflow to public waters.

Recreational use of water in treatment area - There are no restrictions on the use of water in the treatment area for recreational purposes, including swimming and fishing.

Livestock use of water in/from treatment area - There are no restrictions on livestock consumption of water from the treatment area.

# **Precautions for Avoiding Injury to Nontarget 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 must 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.

#### MANDATORY SPRAY DRIFT

# **Aerial Applications:**

- DO NOT release spray at a height greater than 10 ft. above the vegetative canopy, unless a greater application height is necessary for pilot safety.
- Applicators are required to use a coarse or coarser spray droplet size (ASABE S572.1) for all applications.
- The boom length must not exceed 65% of the wingspan for airplanes or 75% of the rotor blade diameter for helicopters.
- Applicators must use ½ swath displacement upwind at the downwind edge of the field.
- Nozzles must be oriented so the spray is directed toward the back of the aircraft.
- DO NOT apply when wind speeds exceed 10 mph at the application site.
- DO NOT apply during temperature inversions.

### **Ground Applications:**

- Apply with the nozzle height recommended by the manufacturer, but no more than 3 ft. above the ground or crop canopy.
- Applicators are required to use a coarse or coarser spray droplet size (ASABE S572.1) for all applications.
- DO NOT apply when wind speeds exceed 10 mph at the application site.
- DO NOT apply during temperature inversions.

# MANDATORY SPRAY DRIFT (continued)

#### **Boom-less Ground Applications:**

- Applicators are required to use a coarse or coarser droplet size (ASABE S572.1) for all applications.
- DO NOT apply when wind speeds exceed 10 miles per hour at the application site.
- DO NOT apply during temperature inversions.

#### SPRAY DRIFT ADVISORIES

#### **Boom-less Ground Applications:**

Setting nozzles at the lowest effective height will help to reduce the potential for spray drift.

# **Handheld Technology Applications:**

· Take precautions to minimize spray drift.

THE APPLICATOR IS RESPONSIBLE FOR AVOIDING OFF-SITE SPRAY DRIFT. BE AWARE OF NEARBY NON-TARGET SITES AND ENVIRONMENTAL CONDITIONS.

#### IMPORTANCE OF DROPLET SIZE

An effective way to reduce spray drift is to apply large droplets. Use the largest droplets that provide target pest control. While applying larger droplets will reduce spray drift, the potential for drift will be greater if applications are made improperly or under unfavorable environmental conditions.

### Controlling Droplet Size - Ground Boom

- Volume Increasing the spray volume so that larger droplets are produced will reduce spray drift. Use the highest practical spray volume for the application. If a greater spray volume is needed, consider using a nozzle with a higher flow rate.
- Pressure Use the lowest spray pressure recommended for the nozzle to produce the target spray volume and droplet size.
- Spray Nozzle Use a spray nozzle that is designed for the intended application. Consider using nozzles designed to reduce drift.

# Controlling Droplet Size - Aircraft

Adjust Nozzles – Follow nozzle manufacturers recommendations for setting up nozzles. Generally, to reduce fine droplets, nozzles should be oriented parallel with the airflow in flight.

# Boom Height - Ground Boom

Use the lowest boom height that is compatible with the spray nozzles that will provide uniform coverage. For ground equipment, the boom should remain level with the crop and have minimal bounce.

#### Release Height - Aircraft

Higher release heights increase the potential for spray drift. When applying aerially to crops, DO NOT release spray at a height greater than 10 ft. above the crop canopy, unless a greater application height is necessary for pilot safety.

# SHIELDED SPRAYERS

Shielding the boom or individual nozzles can reduce spray drift. Consider using shielded sprayers. Verify that the shields are not interfering with the uniform deposition of the spray on the target area.

#### TEMPERATURE AND HUMIDITY

When making applications in hot and dry conditions, use larger droplets to reduce effects of evaporation.

#### TEMPERATURE INVERSIONS

Drift potential is high during a temperature inversion. Temperature inversions are characterized by increasing temperature with altitude and are common on nights with limited cloud cover and light to no wind. The presence of an inversion can be indicated by ground fog or by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing. Avoid applications during temperature inversions.

#### WIND

Drift potential generally increases with wind speed. AVOID APPLICATIONS DURING GUSTY WIND CONDITIONS. Applicators need to be familiar with local wind patterns and terrain that could affect spray drift.

#### WIND FROSION

Avoid treating powdery dry or light sandy soils when conditions are favorable for wind erosion. Under these conditions, the soil surface must first be settled by rainfall or irrigation.

# RESISTANCE MANAGEMENT

For resistance management, this product is a Group 2 herbicide. Any weed population may contain or develop plants naturally resistant to this product and other Group 2 herbicides. The resistant biotypes may dominate the weed population if these herbicides are used repeatedly in the same area. Appropriate resistance management strategies should be followed.

To delay herbicide resistance take one or more of the following steps:

- Rotate the use of this product or other Group 2 herbicides within a growing season sequence or among growing seasons with different herbicide groups that control the same weeds.
- Use tank mixtures with herbicides from a different group if such use is permitted; where information on resistance in target weed species is available, use the less resistance-prone partner at a rate that will control the target weed(s) equally as well as the more

resistance-prone partner. Consult your local extension service or certified crop advisor if you are unsure as to which active ingredient is currently less prone to resistance.

- Adopt an integrated weed-management program for herbicide use that includes scouting and uses historical information related to
  herbicide use and crop rotation and that considers mechanical control methods, cultural (e.g., timing to favor the turf or crop and not
  the weeds), biological (weed-competitive varieties) and other management practices.
- Scout before and after herbicide application to monitor weed populations for early signs of resistance development. Indicators of possible herbicide resistance include: (1) failure to control a weed species normally controlled by the herbicide at the dose applied, especially if control is achieved on adjacent weeds; (2) a spreading patch of non-controlled plants of a particular weed species; (3) surviving plants mixed with controlled individuals of the same species. If resistance is suspected, prevent weed seed production in the affected area by an alternative herbicide from a different group or by a mechanical method [including hoeing or tillage]. Prevent movement of resistant weed seeds to other areas by cleaning equipment [when moving between fields, and planting clean seed].
- If a weed pest population continues to progress after treatment with this product, discontinue use of this product, and switch to another management strategy or herbicide with a different mode of action, if available.
- Contact your local extension specialist or certified crop advisors for additional pesticide resistance-management and/or integrated weed-management recommendations for specific crops and weed biotypes.
- For further information or to report non-performance or suspected resistance, contact Nufarm at 1-800-345-3330.

It is advisable to keep accurate records of pesticides applied to individual fields to help obtain information on the spread and dispersal of resistant biotypes. Contact your local sales representative, crop advisor, or extension agent to find out if suspected resistant weeds to this MOA have been found in your region. **DO NOT** assume that each listed weed is being controlled by this mechanism of action. Co-formulated active ingredients are intended to broaden the spectrum of weeds that are controlled. Some weeds may be controlled by only one of the active ingredients in this product.

Suspected herbicide-resistant weeds may be identified by these indicators:

- Failure to control a weed species normally controlled by the herbicide at the dose applied, especially if control is achieved on adjacent weeds.
- A spreading patch of non-controlled plants of a particular weed species; and
- Surviving plants mixed with controlled individuals of the same species.

#### INTEGRATED PEST MANAGEMENT

Nufarm advises the use of Integrated Pest Management (IPM) programs to control pests. This product may be used as part of an Integrated Pest Management (IPM) program which can include biological, cultural, and genetic practices including field scouting or other detection methods, correct target pest identification, population monitoring, and treating when target pest populations reach locally determined action thresholds. Consult your state cooperative extension service, professional consultants or other qualified authorities to determine appropriate action treatment threshold levels for treating specific pest/orop or site systems in your area.

#### **ADJUVANTS**

Post-emergence applications of this product require the addition of a spray adjuvant for optimum herbicide performance. Only spray adjuvants that are approved or appropriate for aquatic use can be utilized. The addition of a Chemical Producers and Distributors Associations (CPDA) certified adjuvant can increase control. A CPDA certified drift control agent may also be used.

Nonionic Surfactants: Use a nonionic surfactant at the rate 0.25% v/v or higher (see manufacturer's label) of the spray solution (0.25% v/v is equivalent to 1 quart in 100 gallons). For best results, select a nonionic surfactant with a HLB (hydrophilic to lipophilic balance) ratio between 12 and 17 with at least 70% surfactant in the formulated product. Alcohols, fatty acids, oils, ethylene glycol or diethylene glycol must not be considered as surfactants to meet the above requirements.

Methylated Seed Oils or Vegetable Oil Concentrates: Instead of a surfactant, a methylated seed oil or vegetable-based seed oil concentrate may be used at the rate of 24-32 fl. oz. per acre. When using spray volumes greater than 30 gallons per acre, methylated seed oil or vegetable based seed oil concentrates must be mixed at a rate of 1 % of the total spray volume, or alternatively use a nonionic surfactant as described above. Research indicates that these oils may aid in product deposition and uptake by plants under moisture or temperature stress.

Silicone Based Surfactants: See manufacturer's label for specific rate specifications. Silicone-based surfactants may reduce the surface tension of the spray droplet, allowing greater spreading on the leaf surface as compared to conventional nonionic surfactants. However, some silicone-based surfactants may dry too quickly, limiting herbicide uptake.

Invert emulsions: This product can be applied as an invert emulsion. The spray solution results in an invert (water-in-oil) spray emulsion designed to minimize spray drift and spray run-off, resulting in more herbicide on the target foliage. The spray emulsion may be formed in a single tank (batch mixing) or injected (in-line mixing). Consult the invert chemical label for proper mixing directions. **DO NOT** apply more than 48 fl. oz. of this product per acre (1.5 lbs. (ae) imazapyr) in an invert emulsion.

Fertilizer/Surfactant Blends: Nitrogen based liquid fertilizers including 28%N, 32%N, 10-34-0 or ammonium sulfate, may be added at the rate of 32-48 fl. oz. per acre in combination with the specified rate of nonionic surfactant, methylated seed oil or vegetable/seed oil concentrate. The use of fertilizers in a tank mix without a nonionic surfactant, methylated seed oil or vegetable/seed oil concentrate is not advised.

Other: An antifoaming agent, spray pattern indicator or drift reducing agent may be applied at the product labeled rate if necessary or desired.

#### TANK MIXES

It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

#### APPLICATION METHODS

This product may be selectively applied by using low volume directed application techniques or may be broadcast applied using ground equipment, watercraft, or aircraft. Aerial applications to aquatic sites must be made by helicopter. In addition, this product may also be applied using cut stump, cut stem, and frill or girdle treatment techniques within nonagricultural lands, pasture/rangeland and aquatic sites. See AERIAL APPLICATION and GROUND APPLICATION sections for additional details.

#### COMPATIBILITY

Before full-scale mixing of this product with other pesticides, emulsifiers, fertilizers, surfactants or oils, determine the compatibility of the proposed mixture. Use proportionate quantities of each ingredient and mix in a small container. Always mix one product thoroughly with the diluent before adding another product. If no incompatibility is evident after 30 minutes, the mixture is generally compatible for spraying. To evaluate potential short term effects of applying the mixture, test the tank mix combination on a few plants or a small area before larger-scale treatments. Wait at least 2 to 3 days for problems to become apparent.

IMPORTANT: MIXING WITH OTHER SUBSTANCES MAY INCREASE THE RISK OF MIXING INCOMPATIBILITIES, REDUCED EFFECTIVENESS AND/OR CAUSE CROP INJURY OR LOSS, ANY LIABILITY FOR LOSS, INJURY OR DAMAGE RESULTING FROM A MIXTURE NOT SPECIFIED ON THIS LABEL OR IN MANUFACTURER'S SUPPLEMENTAL LABELING DISTRIBUTED FOR THIS PRODUCT IS SPECIFICALLY DISCLAIMED BY MANUFACTURER.

#### AFRIAL APPLICATION

All precautions must be taken to minimize or eliminate spray drift. Both helicopter and fixed wing aircraft can be used to apply this product, but applications to aquatic sites are restricted to helicopter only. **DO NOT** make applications by helicopter or fixed wing aircraft unless appropriate buffer zones can be maintained to prevent spray drift out of the target area, or when spray drift as a result of helicopter application can be tolerated. Aerial equipment designed to minimize spray drift including a helicopter equipped with a Microfoil<sup>TM</sup> boom Thru-Valve<sup>TM</sup> boom or raindrop nozzles must be used and calibrated. Except when applying with a Microfoil borm, a drift control agent may be added at the specified label rate. **DO NOT** side trim with this product unless death of treated tree can be tolerated.

Uniformly apply the specified amount of this product in 2 to 30 gallons of water per acre. A foam reducing agent may be added at the specified label rate.

Immediately after each use of this product thoroughly clean application equipment, including landing gear. Uncoated steel surfaces (except stainless steel surfaces) may result in corrosion and failure after prolonged exposure to the product. The maintenance of an paint (organic coating) may prevent corrosion.

# GROUND APPLICATION RESTRICTIONS

#### Maximum Rate - Annual

• DO NOT apply more than 48 fl. oz. of this product (1.5 lbs. (ae) imazapyr) per acre per year.

#### Maximum Rate - Single Application

• DO NOT apply more than 48 fl. oz. of this product (1.5 lbs. (ae) imazapyr) per single application.

## **Maximum Number of Applications Per Year**

• DO NOT apply more than 4 applications per year when using reduced application rates.

# Minimum Retreatment Interval

• DO NOT make broadcast applications more than 14 days apart.

### Low Volume Foliar:

Use equipment calibrated to deliver 5 to 20 gallons of spray solution per acre. To prepare the spray solution, thoroughly mix in water 0.25 to 2.5% of this product plus surfactant (see the ADJUVANTS section of this label for specific instructions). A foam reducing agent may be applied at the label rate, if needed. For control of difficult species (see AQUATIC WEEDS CONTROLLED section and the TERRESTRIAL WEEDS CONTROLLED section for relative susceptibility of weed species), use the higher concentrations of herbicide and/or spray volumes but **DO NOT** apply more than 48 fl. oz. of this product (1.5 lbs. (ae) imazapyr) per acre per year in aquatic sites and nonagricultural lands. **DO NOT** apply more than 24 fl. oz. of this product (0.75 lbs. (ae) imazapyr) per acre per year in pasture/rangeland sites.

Excessive wetting of foliage is not necessary.

For low volume foliar application, select proper nozzles to avoid over-application. Proper application is critical to ensure desirable results. Best results are achieved when the spray covers the crown and approximately 70% of the plant. The use of an even flat fan tip with a spray angle of 40 degrees or less will aid in proper deposition.

Appropriate tip sizes include 4004E, or 1504E. For a straight stream and cone pattern, adjustable cone nozzles including 5500 X3 or 5500 X4 may be used. Attaching a rollover valve onto a Spraying Systems Model 30 gunjet or other similar spray guns allows for the use of both a flat fan and cone tips on the same gun.

Moisten, but **DO NOT** drench target vegetation causing spray solution to run off.

# Low Volume Foliar with Backpacks:

For low-growing species, spray down on the crown, covering crown and penetrating approximately 70% of the plant.

For target species 4 to 8 feet tall, swipe the sides of target vegetation by directing spray to at least two sides of the plant in smooth vertical motions from the crown to the bottom. Make sure to cover the crown whenever possible.

For target species over 8 feet tall, lace sides of the target vegetation by directing spray to at least two sides of the target in smooth zigzaq motions from crown to bottom.

#### Low Volume Foliar with Hydraulic Handgun Application Equipment:

Use same technique as described above for Low Volume Foliar with Backpacks.

For broadcast applications, simulate a gentle rain near the top of target vegetation, allowing spray to contact the crown and penetrate the target foliage without falling to the understory. Herbicide spray solution which contacts the understory may result in severe injury or death of plants in the understory.

# **High Volume Foliar:**

For optimum performance when spraying medium to high-density vegetation, use equipment calibrated to deliver up to 100 gallons of spray solution per acre (GPA). Spray solutions exceeding 100 GPA may result in excessive spray run-off, causing increased ground cover injury. and injury to desirable species.

To prepare the spray solution, thoroughly mix this product in water and add a surfactant (see ADJUVANT section for specifications and rates of surfactants). A foam-reducing agent may be added at the label rate, if needed. For control of difficult species (see AQUATIC WEEDS CONTROLLED section and the ADDITIONAL WEEDS CONTROLLED section for relative susceptibility of weed species), use the higher concentrations of herbicide and/or spray volumes, but **DO NOT** apply more than 48 fl. oz. of this product (1.5 lbs. (ae) imazapyr) per acre per year in aquatic sites and nonagricultural lands. **DO NOT** apply more than 24 fl. oz. of this product (0.75 lbs. (ae) imazapyr) per acre per year in pasture/rangeland sites. Uniformly cover the foliage of the vegetation to be controlled but **DO NOT** apply to run-off. Excessive wetting of foliage is not necessary.

#### SIDE TRIMMING

**DO NOT** side trim with this product unless severe injury or death of the treated tree can be tolerated. This product is readily translocated and can result in death of the entire tree.

#### CUT SURFACE TREATMENTS

This product may be used to control undesirable woody vegetation by applying the product solution to the cambium area of freshly cut stump surfaces or to fresh cuts on the stem of the target woody vegetation. Applications can be made at any time of the year except during periods of heavy sap flow in the spring, **DO NOT** over apply solution causing run-off from the cut surface.

Injury may occur to desirable woody plants if the shoots extend from the same root system or their root systems are grafted to those of the treated tree.

This product may be mixed as either a concentrated or dilute solution for stump and cut stem treatments. The dilute solution may be used for applications to the surface of the stump or to cuts on the stem of the target woody vegetation. Concentrated solutions may be used for applications to cuts on the stem. Use of the concentrated solution permits application to fewer cuts on the stem, especially for large diameter trees. Follow the application instructions to determine proper application techniques for each type of solution.

To prepare a dilute solution, mix 4 to 6 fl. oz of this product (0.12 to 0.2 lbs. (ae) imazapyr) with one gallon of water. If temperatures are such that freezing of the spray mixture may occur, antifreeze (ethylene glycol) may be used according to manufacturer's label to prevent freezing. The use of a surfactant or penetrating agent may improve uptake through partially callused cambiums. To prepare a concentrated solution, mix 32 fl. oz. of this product (1 lb. (ae) imazapyr) with no more than 32 fl. oz. of water.

# **CUT STUMP TREATMENT**

Spray or brush the solution onto the cambium area of the freshly cut stump surface. Ensure that the solution thoroughly wets the entire cambium area (the wood next to the bark of the stump).

# CUT STEM TREATMENT (injection, hack-and-squirt)

**Dilute Solutions** - Using standard injection equipment, apply 1 milliliter of solution at each injection site around the tree with no more than one-inch intervals between cut edges. Ensure that the injector completely penetrates the bark at each injection site.

Concentrate Solutions - Using standard injection equipment, apply 1 milliliter of solution at each injection site. Make at least one injection cut for every 3 inches of Diameter at Breast Height (DBH) on the target tree. For example, a 3-inch DBH tree will receive 1 injection cut and a 6-inch DBH tree will receive 2 injection cuts. On trees requiring more than one injection site place the injection cuts at approximately equal intervals around the tree.

# **CUT STUBBLE**

This product can be applied within 2 weeks after mechanical mowing or cutting of brush. To suppress or control resprouting, uniformly apply a spray solution of this product at the rate of 8-16 fl. oz. (0.25 to 0.5 lbs. (ae) imazapyr) per acre to the cut area. This product may be tank-mixed with picloram, or equivalent labeled product for this use, to aid in control or suppression of brush. The addition of 5% (v/v) or more of a penetrating agent can aid in uptake through the bark or exposed roots.

Cut stubble applications are made to the soil and cut brush stumps. This type of application may increase ground cover injury. However, vegetation will recover. Making applications of this product directly to the soil can increase potential root uptake causing injury or death of desirable trees.

Efficacy can be increased and root uptake by desirable vegetation can be decreased if the brush is allowed to regrow and the foliage is

#### FRILL OR GIRDLE TREATMENT

Using a hatchet, machete, or chain saw, make cuts through the bark and completely around the tree to expose the cambium. The cut must angle downward extending into the cambium enough to expose at least two growth rings. Using a spray applicator or brush, apply a 12.5 to 50% solution of this product into each cut until thoroughly wet. Avoid applying so much herbicide that runoff to the ground or water nocurs.

#### BASAL APPLICATION

This product is an aqueous formulation that requires mixing with basal oil containing at least 15% emulsifier or will require the addition of an emulsifier, for application to the basal area of brush and trees to control undesirable vegetation in the following noncropland areas: access roads; airfields; airports; along forest roads; around commercial or industrial structures or outbuildings; around farm and ranch structures and outbuildings; bare ground; construction sites; ditch banks; dry ditches & canals; fences & fencerows; firebreaks; gravel yards; habitat restoration & management areas; highways & roadsides (including aprons, medians, guardrails & right of ways); industrial plant sites; industrial areas; lumber yards; natural areas; paved areas; petroleum & other tank farms; pumping installations; pipeline, power, telephone & utility rights-of-way; power stations; railroad rights-of way; refineries; resorts; storage areas; substations; uncropped farmstead areas; vacant lots; walkways; wastelands; & wildlife habitat areas.

### Thinline Basal and Stem Application

• This product may be applied as a thinline basal or arcing application to the stems of susceptible species including big leaf maple (Acer macrophyllum), willow (Salix spp.) and Eucalyptus (Eucalyptus spp.) with a stem ground line diameter of 3 inches or less. Mix 12 to 24 ounces of this product in one gallon (0.4-0.75 lbs. (ae) imazapyr) of basal oil containing at least 15% emulsifier. Maintain uniform mixtures with frequent agitation. Direct a thin line of the spray solution to the stems beginning a few feet from the ground and descending toward the base of the tree making a zig-zag motion. DO NOT over apply causing puddling.

#### Low Volume Basal Bark Treatments

- This product, at the rate of 4 to 6 fl. oz. per gallon (0.12-0.20 lbs. (ae) imazapyr), may be applied for low volume basal bark treatments. This product at 1.5 to 2.5% (0.06-0.1 lbs. (ae) imazapyr) is advised to be tank mixed with triclopyr or other basal products to broaden the spectrum of control. Consult the herbicide labels for rates and susceptible brush species. Mixing with basal requires compatibility tests prior to mixing large quantities. Mixing aids (including emulsifiers, etc.) and ongoing agitation are required to attain a homogenous tank mix.
- Basal application must be made to the lower 12" to 18" of the target brush and go to the soil. Care must be taken to not puddle or
  over treat the stem. Basal application is best suited for low density brush sites, where stems DO NOT exceed 700 stems per acre.

For Basal Application – It is advisory to mix only the intended amount of mixture that is to be sprayed that day. Adequate agitation must be maintained with all emulsion mixtures to prevent phase separation. Prior to tank mixing with other products, herbicides and oils, you must determine the compatibility of the proposed mixture (See **COMPATIBILITY** section).

SPRAY SOLUTION MIXING GUIDE						
AMOUNT OF SPRAY SOLUTION		RIS AC COMPLETE ONE	NUFARM POLARIS AC COMPLETE WHEN TANK MIXING		TRICLOPYR	
BEING PREPARED	4.0 oz	6.0 oz.	1.5%	2.5%	15%	20%
1 Gallon	4.0 oz.	6.0 oz.	1.9 oz.	3.2 oz.	1.2 pts.	1.6 pts.
3 Gallons	12.0 oz.	18.0 oz.	5.75 oz.	9.6 oz.	1.8 qts.	2.4 qts.
4 Gallons	1.0 pt.	1.5 pts.	7.7 oz.	12.8 oz.	2.4 qts.	3.2 qts.
5 Gallons	1.25 pts.	1.0 pt. + 14.0 oz.	9.6 oz.	1.0 pt.	3.0 qts.	1.0 gal.
50 Gallons	1.5 gals. + 8.0 oz.	2.0 gals. + 2.75 pts.	3.0 qts.	1.25 gals.	7.5 gals.	10.0 gals.
100 Gallons	3.0 gals. + 1.0 pt.	4.0 gals. + 2.75 qts.	1.5 gals.	2.5 gals.	15.0 gals.	20.0 gals.
16 ounces = 1 pint : 2 pints = 1 quart : 4 quarts = 1 gallon						

# FORESTRY USE RESTRICTIONS

#### Maximum Rate - Annual

• DO NOT apply more than 48 fl. oz. of this product (1.5 lbs. (ae) imazapyr) per acre per year.

# Maximum Rate - Single Application

• DO NOT apply more than 48 fl. oz. of this product (1.5 lbs. (ae) imazapyr) per single application.

#### **Maximum Number of Applications Per Year**

• **DO NOT** apply more than 4 applications per year when using reduced application rates.

# Minimum Retreatment Interval

• DO NOT make broadcast applications more than 14 days apart.

#### SITE PREPARATION TREATMENT

This product may be used to control labeled actively growing grasses, broadleaf weeds, vines and brambles, and woody brush and trees on forest sites in advance of regeneration for the following conifer crop species:

Crop Species	Rate (fl. oz./A)
Loblolly Pine (Pinus taeda)	24-40 (0.75-1.24 lbs. (ae) imazapyr)
Loblolly X Pitch Hybrid	24-40 (0.75-1.24 lbs. (ae) imazapyr)
Longleaf Pine (Pinus palustris)	24-40 (0.75-1.24 lbs. (ae) imazapyr)
Shortleaf Pine (Pinus echinata)	24-40 (0.75-1.24 lbs. (ae) imazapyr)
Virginia Pine (Pinus virginiana)	24-40 (0.75-1.24 lbs. (ae) imazapyr)
Slash Pine (Pinus elliottii)	20-32 (0.62-1.0 lbs. (ae) imazapyr)
Douglas-Fir (Pseudotsuga menziesii)	12-24 (0.40-0.75 lbs. (ae) imazapyr)
Coastal Redwood (Sequoia sempervirens)	12-24 (0.40-0.75 lbs. (ae) imazapyr)
Incense cedar (Libocedrus decurrens)	12-24 (0.40-0.75 lbs. (ae) imazapyr)
Western Hemlock (Tsuga heterophylla)	12-24 (0.40-0.75 lbs. (ae) imazapyr)
California Red Fir (Abies magnifica)	12-20 (0.40-0.62 lbs. (ae) imazapyr)
California White Fir (Abies concolor)	12-20 (0.40-0.62 lbs. (ae) imazapyr)
Jack Pine ( <i>Pinus banksiana</i> )	12-16 (0.40-0.50 lbs. (ae) imazapyr)
Lodgepole Pine (Pinus contorta)	12-16 (0.40-0.50 lbs. (ae) imazapyr)
Pitch Pine (Pinus rigida)	12-16 (0.40-0.50 lbs. (ae) imazapyr)
Ponderosa Pine (Pinusponderosa)	12-16 (0.40-0.50 lbs. (ae) imazapyr)
Sugar Pine (Pinus lambertiana)	12-16 (0.40-0.50 lbs. (ae) imazapyr)
White Pine (Pinus strobus)	12-16 (0.40-0.50 lbs. (ae) imazapyr)
Black Spruce ( <i>Picea mariana</i> )	12-16 (0.40-0.50 lbs. (ae) imazapyr)
Red Spruce (Picea rubens)	12-16 (0.40-0.50 lbs. (ae) imazapyr)
White Spruce (Picea glauca)	12-16 (0.40-0.50 lbs. (ae) imazapyr)

Use the specified rate of this product per acre applied as a broadcast foliar spray for long-term control of labeled woody plants and residual control of herbaceous weeds. Within 4 to 6 weeks of treatment, grasses and other herbaceous weeds will be controlled and may provide fuel to facilitate a site preparation burn, if desired, to control conifers or other species resistant to the herbicide.

Apply the specified rate of this product per acre in 5 to 30 gallons total spray solution for helicopter applications or 5 to 100 gallons total

spray solution for mechanical ground spray and backpack applications. Use a minimum of 1/4 percent by volume nonionic surfactant. Use the higher label rates of this product and higher spray volumes when controlling particularly dense or multilayered canopies of hardwood stands, or difficult to control species.

Tank mixes may be necessary for chemical control of conifers and other species resistant to this product in certain cases. Always follow the most restrictive directions for use and precautionary statements of each product in the tank mixture. Combinations with other products labeled for forest site preparation may kill certain plants including legumes and blackberry which are desirable for wildlife habitat.

Where quick initial brown out (deadening of foliage) is desired for burning, apply a tank mixture of this product with triclopyr or other products registered for this use at specified label rates per acre. For control of seedling pines, apply this product with glyphosate or other products registered for this use at specified label rates. For site preparation, rates less than the specified label rates of this product will provide suppression of hardwood brush and trees, and some re-sprouting may occur.

**DO NOT** plant seedlings of black spruce (*Picea mariana*) or white spruce (*Picea glauca*) on sites that have been broadcast treated with this product or into the treated zone of spot or banded applications for three months following application or injury may occur.

# HERBACEOUS WEED CONTROL

Use this product for selective weeding in the following conifers:

Crop Species	Rate (fl. oz./A)
Loblolly Pine (Pinus taeda)	4-6
Lobioliy Filie (Filius taeda)	(0.12-0.20 lbs. (ae) imazapyr)
Loblolly X Pitch Hybrid	6-10
Lobiolity & Filen Hybrid	(0.20-0.31 lbs. (ae) imazapyr)
Virginia Pine (Pinus virginiana)	6-10
Virginia Fine (Finas Virginiana)	(0.20-0.31 lbs. (ae) imazapyr)
Longleaf Pine (Pinus palustris) 1	4-6
Longlear Fille (Fillus palustris)	(0.12-0.20 lbs. (ae) imazapyr)
Shortleaf Pine (Pinus echinata) 1	4-6
Shortlear Fine (Finus echinata)	(0.12-0.20 lbs. (ae) imazapyr)
Slash Pine (Pinus elliottii) 1	4-6
Glasti Filie (Filius elliottii)	(0.12-0.20 lbs. (ae) imazapyr)
Douglas-Fir (Pseudotsuga menziesii) 1	4-6
Douglas-i ii (i-seudotsuga menziesii)	(0.12-0.20 lbs. (ae) imazapyr)

<sup>&</sup>lt;sup>1</sup>Use of surfactant is not advised.

This product may be applied as a broadcast treatment, banded over tree rows, or as a directed spray for release of young conifers from herbaceous weeds. To prevent possibility of conifer injury, **DO NOT** apply this product when conifers are under stress from drought, diseases, animal or winter injury, planting shock, or other stresses reducing conifer vigor. Broadcast applications may be made by helicopter, ground, or backpack sprayer. For difficult to control weeds, use the higher labeled rates. Where herbaceous weeds have overtopped conifer seedlings, a nonionic surfactant may be added to improve weed control (except for slash pine, long-leaf pine, and Douglas-fir), at a rate not to exceed 1/4 percent of spray solution volume. Some minor conifer growth inhibition may be observed when herbaceous weed control treatments are made during periods of active conifer growth.

This product may also be applied using backpack or hand-held sprayers to control herbaceous weeds around individual conifer seedlings. Mix 0.4 to 0.6 fl. oz. of this product (0.013 to 0.02 lbs. (ae) imazapyr) and 0.2 fl. oz. nonionic surfactant per gallon of water. Direct the spray to the weeds and minimize the amount applied to conifer foliage for best conifer tolerance. Ensure that maximum labeled rates per acre listed for crop species above are not exceeded.

This product may be tank mixed with a sulfometuron-methyl product to broaden the spectrum of weeds controlled. Always follow the most restrictive directions for use and precautionary statements of each product in the tank mixture. For loblolly pine, apply 4 to 6 fl. oz. of this product (0.12 to 0.2 lbs. (ae) imazapyr) plus a sulfometuron-methyl product at the specified label rate per acre. The application of this product plus a sulfometuron-methyl product at the specified label rates on other conifer species may cause growth suppression.

# CONIFER RELEASE TREATMENTS

This product may be applied as a broadcast or directed spray application for suppression of labeled brush, tree, and herbaceous weed species. Directed spray applications may be made with low-volume applications in conifer stands of all ages by targeting the unwanted vegetation and avoiding direct application to the conifer. Ensure that maximum labeled rates per acre listed for crop species below are

## Use broadcast applications of this product for release of the following conifers from hardwood competition:

Crop Species	Rate (fl. oz./Acre)
Loblolly Pine (Pinus taeda) 3	12-20
, , , , , , , , , , , , , , , , , , , ,	(0.40-0.62 lbs. (ae) imazapyr)
Loblolly X Pitch Hybrid <sup>3</sup>	12-20 (0.40-0.62 lbs. (ae) imazapyr)
	12-20
Virginia Pine (Pinus virginiana) 3	(0.40-0.62 lbs. (ae) imazapyr)
Longleaf Pine (Pinuspalustris)	12-16
Longlear Fine (Finaspalastris)	(0.40-0.50 lbs. (ae) imazapyr)
Pitch Pine (Pinus rigida)	12-16
	(0.40-0.50 lbs. (ae) imazapyr)
Shortleaf Pine (Pinus echinata)	12-16 (0.40-0.50 lbs. (ae) imazapyr)
	12-16
Slash Pine (Pinus elliottii)	(0.40-0.50 lbs. (ae) imazapyr)
	8-16
White Pine (Pinus strobus) 1	(0.25-0.50 lbs. (ae) imazapyr)
California Red Fir (Abies magnifica)	8-12
Camornia neu i ii (Ables magriinca)	(0.25-0.40 lbs. (ae) imazapyr)
California White Fir (Abies concolor)	8-12
Camerina Trinte Fill ( Ibree Corrector)	(0.25-0.40 lbs. (ae) imazapyr)
Lodgepole Pine (Pinus contorta) <sup>2</sup>	8-12 (0.05 0.40 lbs. (0.0) (magazarus)
	(0.25-0.40 lbs. (ae) imazapyr)  8-12
Douglas-Fir (Pseudotsuga menziesii) 2	8-12 (0.25-0.40 lbs. (ae) imazapyr)
	6-12
Jack Pine (Pinus banksiana) <sup>2</sup>	(0.20-0.40 lbs. (ae) imazapyr)
Black Comman (Binan maniform) 2	6-12
Black Spruce (Picea mariana) <sup>2</sup>	(0.20-0.40 lbs. (ae) imazapyr)
Red Spruce (Picea rubens) 2	6-12
Tiod Opidoo (Frood raborio)	(0.20-0.40 lbs. (ae) imazapyr)
White Spruce ( <i>Picea glauca</i> ) <sup>2</sup>	6-12
. (	(0.20-0.40 lbs. (ae) imazapyr)

<sup>&</sup>lt;sup>1</sup> DO NOT make applications to white pine stands younger than three years old. To minimize potential white pine injury, release treatments must not be made prior to July 15.

Apply the specified rate of this product per acre when making broadcast applications with helicopter or ground spray equipment. Refer to mixing and application instructions for proper spray volumes. A nonionic surfactant may be added at no more than 1/4 percent by volume.

Use the higher label rates of this product when controlling particularly dense stands or difficult to control species. Some minor conifer growth inhibition may be observed when release treatments are made during periods of active conifer growth. To minimize potential conifer height growth inhibition, **DO NOT** make broadcast applications to conifer stands, except loblolly pine, before the end of the second growing season. To minimize potential conifer height growth inhibition, broadcast release treatments may be made late in the growing season. To prevent possibility of conifer injury, **DO NOT** apply this product when conifers are under stress from drought, diseases, animal or winter injury, or other stresses reducing conifer vigor.

This product may be used to release loblolly pine seedlings during the first growing season following planting or for one-year-old natural loblolly pine regeneration. For one-year-old loblolly pine release, apply 12 to 20 fl. oz./A of this product (0.40 to 0.62 lbs. (ae) imazapyr)

<sup>&</sup>lt;sup>2</sup> Applications must be made after formation of final conifer resting buds in the fall or height growth inhibition may occur.

<sup>&</sup>lt;sup>3</sup> Mid-rotation release: For broadcast applications below the pine canopy in established stands of loblolly pine, loblolly X pitch hybrid, and Virginia pine use 16 to 32 fl. oz. (0.5-1.0 lbs. (ae) imazapyr) product per acre. For mid-rotation release of other species use rates listed above.

after July 15. The use of rates below 16 fl. oz. (0.50 lb. (ae) imazapyr)/A is intended for hardwood growth suppression and some hardwood resprouting must be expected.

FOR SLASH PINE AND LONGLEAF PINE, broadcast release treatments over the top of pines for the purpose of woody plant control must be made after August 15 and only in stands 2 through 5 years old. For applications over the top of slash pine and longleaf pine. DO NOT add surfactant and use lower labeled rates on sandy soils.

# FOR THE AERIAL RELEASE TO SLASH PINE (PINUS ELLIOTII) STANDS OVER THE AGE OF 5 YEARS

This product may be applied as an aerial application for release of slash pine stands over the age of 5 years. In addition to reading and following all directions in this product, the following precautions and restrictions are required:

- Make applications in the fall after slash pine height growth has stopped and buds have set.
- DO NOT apply before September 15 even if height growth has stopped and buds have set.
- A maximum of 12 to 14 fl. oz./A of this product (0.40 to 0.44 lbs. (ae) imazapyr) may be applied. Use the 12 fl. oz./A (0.40 lb. (ae) imazapyr) rate on sandier sites.

# 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 above. 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 fl. oz (0.40 lb. (ae) imazapyr) 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.

#### LATE ROTATION VEGETATION CONTROL IN WESTERN CONIFER

In California, the Pacific Northwest and Inland Northwest, broadcast aerial applications of this product up to 24 fl. oz./A (0.75 lb. (ae) imazapyr) are permissible in conifer stands that are targeted for harvesting the year following treatment. Use minimum spray volume of 15 gallons per acre. **DO NOT** use this treatment if conifer injury or mortality cannot be tolerated.

# **BAG AND SPRAY APPLICATION FOR CONIFER RELEASE**

In Douglas-fir and Ponderosa pine stands, broadcast applications of this product up to 16 fl. oz./A (0.50 lb. (ae) imazapyr) are permissible when the trees are covered by bags prior to the application. The bags must prevent the spray mix from contacting the conifer foliage. On sites with coarse textured soils (e.g. decomposed granite, pumice, sandy or rocky sites) or low levels of soil organic matter (generally 5% or less) significant conifer growth inhibition and mortality is possible. **DO NOT** use this treatment on these types of sites if conifer growth inhibition and mortality cannot be tolerated.

# NONAGRICULTURAL LAND USE RESTRICTIONS

#### Maximum Rate - Annual

• DO NOT apply more than 48 fl. oz. of this product (1.5 lbs. (ae) imazapyr) per acre per year.

Maximum Rate - Single Application

• DO NOT apply more than 48 fl. oz. of this product (1.5 lbs. (ae) imazapyr) per single application.

#### **Maximum Number of Applications Per Year**

• DO NOT apply more than 4 applications per year when using reduced application rates.

# Minimum Retreatment Interval

• DO NOT make broadcast applications more than 14 days apart.

This product may be used for woody and herbaceous weed control in nonagricultural lands including private, public, and military lands. Applications are not applicable to treatment of commercial timber or other grown for sale or other commercial use or for commercial seed production or for research purposes.

# **BRUSH CONTROL**

Use the specified rate of this product with the preferred application technique for control of undesirable brush.

# Tank Mixes and Application Rates for Low-Volume Foliar Brush Control\*

Target Vegetation	Nufarm Polaris AC Complete Rate (% by volume)	Tank Mix	
Mixed hardwoods without elm, locust, or pine	0.5 to 0.75	Surfactant	
Mixed hardwoods containing elm, locust, and pine	0.25 to 0.5	Glyphosate at 2% to 3% or 2 2/3 to 4% by volume plus surfactant	
Mixed hardwoods with locust and pine but no elm		Ammonium salt of fosamine at 2% to 5% by volume plus surfactant	
Mixed hardwoods with locust and elm but no pine		Metsulfuron-methyl at 2 oz/A or 2-3 grams/gal plus surfactant	
*Tank mixes with 2.4-D or products containing 2.4-D could result in reduced product efficacy.			

# Backpack and Handheld Spray Mixing Guide

% Solution	Nufarm Polaris AC Complete Per Gallon of Mix (oz)	Nufarm Polaris AC Complete Per 4 Gallon Backpack (OZ)
0.25	0.3	1.3
0.5	0.6	2.6
1.0	1.3	5.1
2.0	2.6	10.2
3.0	3.8	15.4
5.0	6.4	25.6

# **Measuring Chart**

128 fluid ounces	=	1 gallon
16 fluid ounces	=	1 pint
8 pints	=	1 gallon
4 quarts	=	1 gallon
2 pints	=	1 quart

# FOR SELECTIVE CONTROL OF UNDESIRABLE WEEDS IN UNIMPROVED BERMUDAGRASS AND BAHAGRASS

This product may be used on unimproved industrial noncropland Bermudagrass and bahiagrass turf, including roadsides, utility rights-of-way and other nonagricultural lands. The application of this product on established common and coastal Bermudagrass and bahiagrass provides control of labeled broadleaf and grass weeds. Competition from these weeds is eliminated, releasing the Bermudagrass and bahiagrass. Treatment of Bermudagrass with this product results in a compacted growth habit and seedhead inhibition.

Uniformly apply with properly calibrated ground equipment using at least 10 gallons of water per acre. Temporary yellowing of grass may occur when treatment is made after growth begins. **DO NOT** add surfactant in excess of the specified rate (1 fl. oz. per 25 gallons of spray solution). **DO NOT** apply to grass during its first growing season. **DO NOT** apply to grass that is under stress from drought, disease, insects, or other causes.

#### DOSAGE RATES AND TIMING:

Bermudagrass - Apply this product at 3 to 6 fl. oz. per acre (0.10 to 0.20 lbs. (ae) imazapyr) when the Bermudagrass is dormant. Apply this product at 3 to 4 fl. oz. per acre (0.10 to 0.12 lbs. (ae) imazapyr) after the bermudagrass has reached full green-up. Applications made during green-up will delay green-up. Include a surfactant in the spray solution.

For additional pre-emergence control of annual grasses and small seeded broadleaf weeds, add pendimethalin at the rate of 24.8-50.4 fl. oz. per acre. Consult the pendmethalin label for weeds controlled and for other use directions and precautions.

For control of Johnsongrass in bermudagrass turf, apply this product at 4 fl. oz. per acre (0.12 lb. (ae) imazapyr) plus glyphosate at 6 fl. oz. per acre (0.20 lb. (ae) imazapyr) plus surfactant. For additional control of broadleaves and vines, triciopyr may be added to the above mix at the rate of 8-16 fl. oz. per acre. Observe all precautions and restrictions on the triciopyr and glyphosate labels.

Bahiagrass - Apply this product at 2 to 4 fl. oz. per acre (0.06 to 0.12 lbs. (ae) imazapyr) when the bahiagrass is dormant or after the grass has initiated green-up but has not exceeded 25% green-up. Include in the spray solution a surfactant (See Adjuvant section for specific use directions for surfactants).

# WEEDS CONTROLLED IN UNIMPROVED BERMUDAGRASS AND BAHIAGRASS

Bedstraw (Galium spp.)
Bishopweed (Ptilimnium capillaceum)
Buttercup (Ranunculus parviflorus)
Carolina geranium (Geranium carolinianum)
Fescue (Festuca spp.)
Foxtail (Setaria spp.)

Little barley (Hordeum pusillum) Seedling Johnsongrass (Sorghum halepense) Wild carrot (Daucus carota) White clover (Trifolium repens) Yellow woodsorrel (Oxalis stricta)

#### GRASS GROWTH AND SEEDHEAD SUPPRESSION

This product may be used to suppress growth and seedhead development of certain turfgrass in unimproved areas. When applied to desirable turf, this product may result in temporary turf damage and/or discoloration. Effects to the desirable turf may vary with environmental conditions. For optimum performance, application must be made prior to culm elongation. Applications may be made before or after mowing. If applied prior to mowing, allow at least three days of active growth before mowing. If following a mowing, allow sufficient time for the grasses to recover before applying this product or injury may be amplified.

DO NOT apply to turf under stress (drought, cold, insect damaged, etc.) or severe injury or death may occur.

Bermudagrass - Apply this product at 3 to 4 fl. oz. per acre (0.10 to 0.12 lbs. (ae) imazapyr) from early green-up to prior to seed head initiation. **DO NOT** add a surfactant for this application.

Cool Season Unimproved Turf - Apply this product at 1 fl. oz. per acre (0.03 lb. (ae) imazapyr) plus 0.25% nonionic surfactant. For increased suppression, this product may be tank-mixed with such products as glyphosate or mefluidide.

Tank-mixes may increase injury to desired turf. Consult each product label for specified turf species and other use directions and precautions. Tank mixes with 2.4-D or products containing 2.4-D may decrease the effectiveness of this product.

## TOTAL VEGETATION CONTROL WHERE BAREGROUND IS DESIRED

This product is an effective herbicide for preemergence or post-emergence control of many annual and perennial broadleaf and grass weeds where bareground is desired. This product is particularly effective on hard-to-control perennial grasses. This product at 12-48 fl. oz. per acre (0.4 to 1.5 lbs. (ae) imazapyr) can be used alone or in tank-mix with herbicides approved for use in bare ground. The degree and duration of control are dependent on the rate of this product used, tank-mix partner, the volume of carrier, soil texture, rainfall and other conditions. Consult manufacturer's labels for specific rates and weeds controlled. Always follow the more restrictive label when making an application involving tank-mixes. Applications of this product may be made anytime of the year. Use equipment calibrated to deliver desired gallons per acre spray volume and uniformly distribute the spray pattern over the treated area.

Post-emergence Applications: Always use a spray adjuvant (See Adjuvant section of this label) when making a post-emergence application. For optimum performance on tough to control annual grasses, applications must be made at a total volume of 100 gallons per acre or less. For quicker burndown or brown-out of target weeds, this product may be tank-mixed with glyphosate. Tank mixes with 2,4-D or products containing 2,4-D may reduce the performance of this product. Always follow the more restrictive label when tank-mixing.

**Spot Treatments:** This product may be used as a follow-up treatment to control escapes or weed encroachment in a bareground situation. To prepare the spray solution, thoroughly mix in each gallon of water 0.5 to 5% of this product plus an adjuvant. For increased burndown, include glyphosate. For added residual weed control or to increase the weed spectrum, add products containing prodiamine or dicamba. Always follow the more restrictive label when tank-mixing.

# FOR CONTROL OF UNDESIRABLE WEEDS UNDER PAVED SURFACES

This product can be used under asphalt, pond liners and other paved areas, ONLY in industrial sites or where the pavement has a suitable barrier along the perimeter that prevents encroachment of roots of desirable plants.

This product must be used only where the area to be treated has been prepared according to good construction practices. If rhizomes, stolons, tubers or other vegetative plant parts are present in the site, they must be removed by scalping with a grader blade to a depth sufficient to ensure their complete removal. Paving must follow applications of this product as soon as possible. **DO NOT** apply where the product may contact the roots of desirable trees or other plants.

This product is not to be used under pavement on residential properties including driveways or parking lots or for use in recreational areas including under bike or jogging paths, golf cart paths, or tennis courts, or where landscape plantings could be anticipated.

Injury or death of desirable plants may result if this product is applied where roots are present or where they may extend into the treated area. Roots of trees and shrubs may extend a considerable distance beyond the branch extremities (drip line).

Applications must be made to the soil surface only when final grade is established. **DO NOT** move soil following application of this product. Apply this product in sufficient water (at least 100 gal. per acre) to ensure thorough and uniform wetting of the soil surface, including the shoulder areas. Add this product at a rate of 48 fl. oz. (1.5 lb. (ae) imazapyr) per acre (1.10 fl. oz. per 1000 square feet) to clean water in the spray tank during the filling operation. Aditate before spraying.

If the soil is not moist prior to treatment, incorporation of this product is needed for herbicide activation. This product can be incorporated into the soil to a depth of 4 to 6 inches using a rototiller or disc. Rainfall or irrigation of 1 inch will also provide uniform incorporation. **DO NOT** allow treated soil to wash or move into untreated areas

#### SPOT TREATMENTS AND CRACK-AND-CREVICE TREATMENTS

Use this product as an initial or follow up treatment to control weed escapes or weed encroachment in bareground situations, including cracks and crevices in paved surfaces including parking lots, runways and roadways.

# FOR SPOT TREATMENT WEED CONTROL IN GRASS PASTURE AND RANGELAND

For the control of undesirable vegetation in grass pasture and rangeland, this product may be applied as a spot treatment at a rate of 1-24 fl. oz. of product (0.03 to 0.75 lbs. (ae) imazapyr) per acre using any of the ground application methods as described in this label. Spot applications may not exceed more than one tenth of the area to be grazed or cut for hay in grass pasture and rangeland. See appropriate sections of this label for specific use directions for the application method and vegetation control desired.

#### RESTRICTIONS

# Maximum Rate - Annual

• DO NOT apply more than 24 fl. oz. of this product (0.75 lbs. (ae) imazapyr) per acre per year.

### Maximum Rate - Single Application

• DO NOT apply more than 24 fl. oz. of this product (0.75 lbs. (ae) imazapyr) per single application.

# Maximum Number of Applications Per Year

• DO NOT apply more than 4 applications per year when using reduced application rates.

#### Minimum Retreatment Interval

• DO NOT make broadcast applications more than 14 days apart.

#### Grazing and Having Restrictions:

**DO NOT** cut forage grass for hay for 7 days after application of this product.

There are no grazing restrictions following application of this product.

#### Rangeland Use Instructions:

This product may be applied to rangeland for the control of undesirable vegetation to achieve one or more of the following vegetation management objectives:

- Control of undesirable (noxious, invasive and non-native) plant species.
- Control of undesirable vegetation for wildlife habitat improvement.
- Control of undesirable vegetation to aid in the establishment of desirable rangeland plant species.
- Release of existing desirable rangeland plant communities from the competitive pressure of undesirable plant species.
- Control of undesirable vegetation to aid in the establishment of desirable vegetation following a fire.
- · Control of vegetation to reduce wildfire fuel.

To ensure the protection of threatened and endangered plants, when applying this product to rangeland:

- Federal agencies must follow NEPA regulations to ensure protection of threatened and endangered plants.
- Other organizations or individuals must operate under a habitat conservation plan if threatened or endangered plants are known to be present on the land to be treated.
- be present on the failed to be freated.

  State agencies must work with the Fish and Wildlife Service or the Service's designated state conservation agency to ensure protection of threatened and endangered plants.

See appropriate sections of this label for specific use directions for the desired rangeland vegetation management control desired.

This product must only be applied to a given rangeland acre as specific weed problems arise. Long-term control of undesirable weeds ultimately depends on the successful use of the land management practices that promote the sustainability and growth of desirable rangeland plant species.

#### ROTATIONAL CROP GUIDELINE

Rotational crops may be planted 12 months after applying this product at the specified pasture and rangeland rate. Twelve months after an application of this product, and before planting any crop, a successful field bioassay must be completed. The field bioassay consists of a test strip of the intended rotational crop planted in the previously treated area in the grass pasture and rangeland and grown to maturity. The test strip must include low areas and knolls, and include variations in soil type and pH within the treated area. If no crop injury is evident in the test strip, the intended rotational crop may be planted the following year.

Use of this product in accordance with label directions is expected to result in normal growth of rotational crops in most situations; however, various agronomic factors and environmental factors make it impossible to eliminate all risks associated with the use of this product and, therefore, rotational crop injury is always possible.

# TERRESTRIAL WEEDS CONTROLLED

In terrestrial sites, this product will provide preemergence or post-emergence control with residual control of the following target vegetation species at the rates listed. Residual control refers to control of newly germinating seedlings in both annuals and perennials. In general, annual weeds may be controlled by preemergence or postemergence applications of this product. For established biennials and perennials postemergence applications of this product are advised.

The rates shown below pertain to broadcast applications and indicate the relative sensitivity of these weeds. The relative sensitivity must be referenced when preparing low volume spray solutions (see "Low Volume" section of "Ground Applications"); low volume applications may provide control of the target species with less product per acre than is shown for the broadcast treatments. This product must be used only in accordance with the Directions for Use on this label.

The relative sensitivity of the species listed below can also be used to determine the relative risk of causing non-target plant injury if any of the below listed species are considered to be desirable within the area to be treated.

Resistant Biotypes: Naturally occurring biotypes (a plant within a given species that has a slightly different, but distinct genetic makeup from other plants of the same species) of some weeds listed on this label may not be effectively controlled. If naturally occurring resistant biotypes are present in an area, this product must be tank-mixed or applied sequentially with an appropriate registered herbicide having a different mode of action to ensure control.

COMMON NAME	SCIENTIFIC NAME	GROWTH HABIT <sup>2</sup>
GRASS WEEDS	COLEVINIO IVANE	anowiii ii a
Apply 16-24 fl. oz per acre <sup>1</sup> (0.5-	.0.75 lbs (ae) imazanyr)	
Annual bluegrass	Poa annua	A
Broadleaf signalgrass	Brachiaria platyphylla	A
Canada bluegrass	Poa compressa	P
Downy brome	Bromus tectorum	A
Fescue	Festuca spp.	A/P
Foxtail		A
	Setaria spp.  Lotium multiflorum	A
Italian ryegrass		P
Johnsongrass <sup>4</sup>	Sorghum halepense	P
Kentucky bluegrass	Poa pratensis	P
Napier grass <sup>5</sup>	Pennisetum purpureum	P
Orchardgrass	Dactytis glomerata	P
Paragrass	Brachiaria mutica	:
Quackgrass	Agropyron repens	P
Sandbur	Cenchrus spp.	A
Smooth brome	Bromus inermis	P
Vaseygrass	Paspalum urvillei	P
Wild oats	Avena fatua	A
Witchgrass	Panicum capillare	A
Apply 24-32 fl. oz. per acre <sup>1</sup> (0.7	5 to 1.0 lbs. (ae) imazapyr)	
Barnyardgrass	Echinochloa crus-galli	A
Beardgrass	Andropogon spp.	P
Bluegrass, annual	Poa annua	A
Bulrush <sup>5</sup>	Scirpus validus	P
Cheat	Bromus secalinus	A
Cogongrass	Imperata cylindrica	P
Crabgrass	Digitaria spp.	A
Crowfootgrass	Dactyloctenium aegyptium	A
Fall panicum	Panicum dichotomiflorum	A
Goosegrass	Eleusine indica	A
Itchgrass	Rottboellia exaltata	A
Lovegrass <sup>4</sup>	Eragrostis spp.	P
Maidencane <sup>5</sup>	Panicum hemitomon	A
Panicum, browntop	Panicum fasciculatum	A
Panicum, Texas	Panicum texanum	A
Prairie threeawn	Aristida oligantha	Р
Sandbur, field	Cenchrus incertus	A
Signalgrass	Brachiaria platyphylla	A
Wild barley	Hordeum spp.	A
Woolly cupgrass	Eriochloa villosa	A

TERRESTRIAL WEEDS CONTROLLED (continued)				
COMMON NAME	SCIENTIFIC NAME	GROWTH HABIT <sup>2</sup>		
GRASS WEEDS (continued)				
Apply 32-48 fl. oz. per acre <sup>1</sup> (1.0	to 1.5 lbs. (ae) imazapyr)			
Bahiagrass	Paspalum notatum	P		
Bermudagrass <sup>3,4</sup>	Cynodon dactylon	P		
Big bluestem	Andropogon gerardii	P		
Dallisgrass	Paspalum dilatatum	P		
Feathertop	Pennisetum villosum	P		
Guineagrass	Panicum maximum	P		
Saltgrass <sup>3</sup>	Distichlis stricta	P		
Sand dropseed	Sporobolus cryptandrus	P		
Sprangletop	Leptochloa spp.	A		
Timothy	Phleum pratense	Р		
Wirestem muhly	Muhlenbergia frondosa	P		
<sup>2</sup> Growth Habit: A = Annual, B= B <sup>3</sup> Use a minimum of 75 GPA. <sup>4</sup> Use higher labeled rates.	well-established infestations occur. iennial, P = Perennial unless otherwise directed by supplemental lab	eling.		
BROADLEAF WEEDS				
Apply 16-24 fl. oz. per acre1 (0.5	5-0.75 lbs. (ae) imazapyr)			
Burdock	Arctium spp.	В		
Carolina geranium	Geranium carolinianum	A		
Carpetweed	Mollugo verticillata	A		
Clover	Trifolium spp.	A/P		
Common chickweed	Stellaria media	A		
Common ragweed	Ambrosia artemisiifolia	A		
Dandelion	Taraxacum officinale	P		
Dogfennel	Eupatorium capillifolium	A		
Filaree	Erodium spp.	A		

Arctium Spp.	D
Geranium carolinianum	A
Mollugo verticillata	A
Trifolium spp.	A/P
Stellaria media	A
Ambrosia artemisiifolia	A
Taraxacum officinale	P
Eupatorium capillifolium	A
Erodium spp.	A
Erigeron spp.	A
Verbena stricta	P
Brassica juncea	A
Kochia scoparia	A
Chenopodium album	A
Lespedeza spp.	P
Montia perfoliata	A
Verbascum spp.	В
Chenopodium murale	A
Chrysanthemum leucanthemum	P
Lepidium spp.	A
Amaranthus spp.	A
Tribulus terrestris	A
Salsola kali	A
	Geranium carolinianum Mollugo verticillata Trifolium spp. Stellaria media Ambrosia artemisiifolia Taraxacum officinale Eupatorium capillifolium Erodium spp. Erigeron spp. Verbena stricta Brassica juncea Kochia scoparia Chenopodium album Lespedeza spp. Montia perfoliata Verbascum spp. Chenopodium murale Chrysanthemum leucanthemum Lepidium spp. Amaranthus spp. Tribulus terrestris

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TERRESTRIAL WEEDS CONTROLLED (co BROADLEAF WEEDS (continued)	initiaed)	
Apply 16-24 fl. oz. per acre <sup>1</sup> (0.5-0.75 lbs.	(ac) imazanur) (continued)	
	,	A/D
Smartweed Sorrell	Polygonum spp.	A/P P
	Rumex spp.	•
Sunflower	Helianthus spp.	A
Sweet clover	Melilotus spp.	A/B
Tansymustard	Descurainia pinnata	A
Western ragweed	Ambrosia psilostachya	P
Wild carrot	Daucus carota	В
Wild lettuce	Lactuca spp.	A/B
Wild parsnip	Pastinaca sativa	В
Wild turnip	Brassica campestris	В
Woollyleaf bursage	Franseria tomentosa	Р
Yellow woodsorrel  1 Use higher labeled rate where heavy or we	Oxalis stricta	Р
<ul> <li><sup>2</sup> Growth Habit: A = Annual, B = Biennial, P =</li> <li><sup>3</sup> Use not permitted in California unless othe</li> <li><sup>4</sup> For best results, early postemergence appl</li> </ul>	rwise directed by supplemental labeling. lications are required	
Apply 24-32 fl. oz. per acre1 (0.75 to 1.0 lb	s. (ae) imazapyr)	
Broom snakeweed	Gutierrezia sarothrae	P
Bull thistle	Cirsium vulgare	В
Burclover	Medicago spp.	A
Chickweed mouseear	Cerastium vulgatum	A
Clover hop	Trifolium procumbens	A
Cocklebur	Xanthium strumarium	A
Cudweed	Gnaphalium spp.	A
Desert camelthorn	Alhagi pseudalhagi	Р
Dock	Rumex spp.	P
Fiddleneck	Amsinckia intermedia	A
Goldenrod	Solidago spp.	Р
Henbit	Lamium amplexicaule	A
Knotweed, prostrate	Polygonum aviculare	A/P
Pokeweed	Phytolacca americana	Р
Purslane	Portulaca spp.	A
Pusley, Florida	Richardia scabra	A
Rocket London	Sisymbrium irio	A
Rush skeletonweed <sup>4</sup>	Chondrilla juncea	В
Saltbush	Atriplex spp.	A
Shepherdspurse	Capsella bursa-pastoris	A
Spurge, annual	Euphorbia spp.	A
opurge, armuar		
Stinging nettle <sup>4</sup>	Urtica dioica	Р

Centaurea solstitialis

Yellow starthistle

Α

TERRESTRIAL WEEDS CONTROL	IFD (continued)	
BROADLEAF WEEDS (continued)	(continued)	
Apply 32-48 fl. oz. per acre <sup>1</sup> (1.0 to	o 1.5 lbs (as) imazanyr)	
Arrowwood	Pluchea sericea	A
Canada thistle	Cirsium arvense	P
Giant ragweed	Ambrosia trifida	A
Gray rabbitbrush	Chrysothamnus nauseosus	P
,		·
Little mallow	Malva parviflora	В
Milkweed	Asclepias spp.	P
Primrose	Oenothera kunthiana	P
Silverleaf nightshade	Solanum elaeagnifolium	Р
Sowthistle	Sonchus spp.	A
Texas thistle	Cirsium texanum	Р
<sup>1</sup> Use higher rate where heavy or we <sup>2</sup> Growth Habit: A = Annual, B = Bie <sup>3</sup> Use not permitted in California unl <sup>4</sup> For best results, early postemerge <b>VINES AND BRAMBLES</b>	nnial, P = Perennial ess otherwise directed by supplemental label	ing.
Apply 8 fl. oz. per acre (0.25 lb. (a	el imazanyrl	
Field bindweed	Convolvulus arvensis	P
Hedge bindweed	Calystegia sepium	A
Apply 16-24 fl. oz. per acre <sup>1</sup> (0.5-0	, , ,	
Wild buckwheat	Polygonum convolvulus	Р
	70	[
Apply 24-32 fl. oz. per acre <sup>1</sup> (0.75		To.
Greenbriar	Smilax spp.	P
Honeysuckle <sup>3</sup>	Lonicera spp.	P
Morningglory	Ipomoea spp.	A/P
Poison ivy	Rhus radicans	Р
Redvine	Brunnichia cirrhosa	Р
Wild rose <sup>3</sup>	Rosa spp.	P
Including: Multiflora rose Macartney rose	Rosa multiflora Rosa bracteata	P P
Apply 32-48 fl. oz. per acre <sup>1</sup> (1.0 to		<u>'</u>
Trumpetcreeper	Campsis radicans	P
Virginia creeper	Parthenocissus quinquefolia	P
	<u> </u>	P
Wild grape  1 Use higher labeled rate where hea 2 Growth Habit: A = Annual, B = Bie 3 Use higher labeled rate	Vitis spp. vy or well-established infestations occur. nnial, P = Perennial	P
BRUSH SPECIES		
Apply 16-32 fl. oz. per acre <sup>1</sup> (0.5 to	o 1.0 lbs. (ae) imazapyr)	
Brazilian peppertree	Schinus terebinthifolius	Р
Chinese tallow tree Popcorn tree	Sapium sebiferum	P
Russian olive	Elaeagnus angustifolia	Р
Sumac	Rhus spp.	P
Willow	Salix spp.	P

TERRESTRIAL WEEDS CONTRO	OLLED (continued)	
BRUSH SPECIES (continued)		
Apply 32-48 fl. oz. per acre <sup>1</sup> (1.0		
Alder	Alnus spp.	Р
American beech	Fagus grandifolia	Р
Ash <sup>3</sup>	Fraxinus spp.	P
Aspen	Populus spp.	P
Autumn olive	Elaeagnus umbellata	P
Bald cypress	Taxodium distichum	P
Bigleaf maple	Acer macrophyllum	P
Birch <sup>3</sup>	Betula spp.	P
Black gum <sup>4</sup>	Nyssa sylvatica	P
Black oak	Quercus kelloggii	P
Boxelder	Acer negundo	Р
Ceanothis	Ceanothus spp.	Р
Cherry <sup>3, 4</sup>	Prunus spp.	Р
Chinaberry	Melia azedarach	Р
Chinquapin	Castanopsis chrysophylla	Р
Cottonwood	Populus trichocarpa P deltoides	Р
Cypress	Taxodium spp.	P
Dogwood <sup>3</sup>	Cornus spp.	P
Elm	Ulmus spp.	Р
Eucalyptus	Eucalyptus spp.	P
Hawthorn	Crataegus spp.	Р
Hickory <sup>3</sup>	Carya spp.	Р
Huckleberry	Gaylussacia spp.	P
Lyonia spp. Including: Fetterbush Staggerbush	Lyonia lucida Lyonia mariana	P P
Madrone	Arbutus menziesii	P
Maple	Acer spp.	P
Melaleuca	Melaleuca quinquenervia	P
Mulberry <sup>3, 6</sup>	Morus spp.	P
Oak <sup>7</sup>	Quercus spp.	Р
Persimmon <sup>4</sup>	Diospyros virginiana	Р
Poison oak	Rhus diversiloba	Р
Poplar	Populus spp.	Р
Privet	Ligustrum vulgare	Р
Red alder	Alnus rubra	Р
Red maple	Acer rubrum	Р
Saltcedar	Tamarix pentandra	Р
Sassafras	Sassafras albidum	Р
Sourwood <sup>4</sup>	Oxydendrum arboreum	P

TERRESTRIAL WEEDS CONTROLI	_ED (continued)		
BRUSH SPECIES (continued)			
Apply 32-48 fl. oz. per acre¹ (1.0 to 1.5 lbs. (ae) imazapyr) (continued)			
Sweetgum	Liquidambar styraciflua	P	
Sycamore	Platanus occidentals	P	
Tanoak <sup>3</sup>	Lithocarpus densiflorus	Р	
Titi <sup>8</sup>	Cyrilla racemiflora	P	
Tree of heaven	Ailanthus altissima	Р	
Vaccinium spp. Including: Blueberry Sparkleberry	Vaccinium spp. Vaccinium arboreum	P P	
Water willow9	Justicia americana	Р	
Yellow poplar <sup>3</sup>	Liriodendron tulipifera	Р	

<sup>&</sup>lt;sup>1</sup> Use higher labeled rate where heavy or well-established infestations occur.

# Aquatic Sites RESTRICTIONS

# Maximum Rate - Annual

DO NOT apply more than 48 fl. oz. of this product (1.5 lbs. (ae) imazapyr) per acre per year.

## Maximum Rate - Single Application

• DO NOT apply more than 48 fl. oz. of this product (1.5 lbs. (ae) imazapyr) per single application.

# **Maximum Number of Applications Per Year**

• DO NOT apply more than 4 applications per year when using reduced application rates.

#### Minimum Retreatment Interval

• DO NOT make broadcast applications more than 14 days apart.

#### No Application to Aquatic Sites in New York State.

# AQUATIC WEEDS CONTROLLED

This product may be applied for control of floating and emergent weeds (see AQUATIC WEEDS CONTROLLED and TERRESTRIAL WEEDS CONTROLLED section) in or near bodies of water which may be flowing, non-flowing, or transient. This product may be applied to specified aquatic sites that include lakes, rivers, streams, ponds, seeps, drainage ditches, canals, reservoirs, swamps, bogs, marshes, estuaries, bays, brackish water, transitional areas between terrestrial and aquatic sites and seasonal wet areas. See Use Precautions and Restrictions section of this label for precautions, restrictions, and instructions on aquatic uses.

Read and observe the following directions if aquatic sites are present in terrestrial noncrop areas and are part of the intended treatment area:

This product must be applied to the emergent foliage of the target vegetation and has little to no activity on submerged aquatic weeds. Concentrations of this product resulting from direct application to water are not expected to be of sufficient concentration nor duration to control target vegetation. Application must be made in such a way as to maximize spray interception by the target vegetation while minimizing the amount of over spray that enters the water.

This product does not control plants that have a majority of their foliage underwater or plants that are completely submerged. **Product Application:** This product must be applied with surface or helicopter application equipment in a minimum of 5 gallons of water per acre. When applying by helicopter, follow directions under the AERIAL APPLICATIONS section of this label, otherwise refer to section on GROUND APPLICATIONS when using surface equipment.

When applying this product to moving bodies of water applications must be made while traveling upstream to prevent concentration of this herbicide in water. **DO NOT** apply to bodies of water or portions of bodies of water where emergent and/or floating weeds DO NOT exist.

<sup>&</sup>lt;sup>2</sup> Growth Habit: A = Annual, B = Biennial, P = Perennial

<sup>3</sup> Use higher labeled rate

<sup>&</sup>lt;sup>4</sup>Best control with applications before formation of fall leaf color.

<sup>&</sup>lt;sup>5</sup> Tank mix with glyphosate.

<sup>&</sup>lt;sup>6</sup> Degree of control may be species dependent

<sup>&</sup>lt;sup>7</sup> For water oak (*Quercus nigia*) laurel oak (*Quercus laurifloria*) willow oak(*Quercus phellos*) and live oak (*Quercus virginiana*) use higher labeled rates.

<sup>&</sup>lt;sup>8</sup> Suppression only.

<sup>&</sup>lt;sup>9</sup> Use not permitted in California unless otherwise directed by supplemental labeling.

Large Application Areas/Oxygen Depletion: When application is to be made to target vegetation that covers a large percentage of the surface area of impounded water, treating the area in strips may avoid oxygen depletion due to decaying vegetation. Oxygen depletion may result in the suffocation of some sensitive aquatic organisms. DO NOT treat more than one half of the surface area of the water in a single operation and wait at least 10 to 14 days between treatments. Begin treatment along the shore and proceed outward in bands to allow aquatic organisms to move into untreated areas.

Avoid washoff of sprayed foliage by recreational boat backwash or spray boat for 1 hour after application.

Apply this product at 16-48 fl. oz. (0.5-1.5 lbs. (ae) imazapyr) per acre depending on species present and weed density. **DO NOT apply more than 48 fl. oz of this product (1.5 lbs. (ae) imazapyr)per acre per year.** Use the higher labeled rates for heavy weed pressure. Consult the AQUATIC WEEDS CONTROLLED section and the ADDITIONAL WEEDS CONTROLLED section of this label for specific rates. This product may be applied as a draw down treatment in areas described above. Apply this product to weeds after water has been drained and allow 14 days before reintroduction of water.

This product will control the following target species as specified in the Use Rates and Application Directions section of the table. Rate instructions are expressed in terms of product volume for broadcast applications and as a percent solution for directed applications including spot treatments. For percent solution applications, **DO NOT apply more than 48 fl. oz of this product (1.5 lbs. (ae) imazapyr) per acre per year.** 

#### Mixing Guide

% Solution	Product Per Gallon of Mix (o2)
0.25	0.3 (0.008 lb. (ae) imazapyr)
0.5	0.6 (0.02 lb. (ae) imazapyr)
1.0	1.3 (0.04 lb.(ae) imazapyr)
2.0	2.6 (0.08 lb. (ae) imazapyr)
3.0	3.8 (0.12 lb. (ae) imazapyr)
5.0	6.4 (0.20 lb. (ae) imazapyr)

# Measuring Chart

128 fluid ounces	=	1 gallon
16 fluid ounces	=	1 pint
8 pints	=	1 gallon
4 quarts	=	1 gallon
2 pints	=	1 quart

Common Name	Scientific Name	Use Rates and Application Directions
Floating Weeds		
*Floating heart	Nymphodes spp	16-32 fl. oz./A (0.5-1 lbs. (ae) imazapyr) applied in 100 GPA water mix. Ensure 100% coverage of actively growing emergent foliage.
*Frogbit	Limnobium spongia	8-16 fl. oz./A (0.25-0.5 lbs. (ae) imazapyr) applied in 100 GPA water mix. Ensure 100% coverage of actively growing emergent foliage.
*Spatterdock	Nuphar luteum	Apply a tank mix of 16-32 fl. oz./A (0.5-1 lbs. (ae) imazapyr) of this product + glyphosate in 100 GPA water for best control. Ensure 100% coverage of actively growing emergent foliage.
*Water hyacinth	Eichhornia crassipes	8-16 fl. oz/A (0.25-0.5 lbs. (ae) imazapyr) applied in 100 GPA water to actively growing foliage.
*Water lettuce	Pistia stratiotes	8-16 fl. oz./A (0.25-0.5 lbs. (ae) imazapyr) applied in 100 GPA water mix. Ensure 100% coverage of actively growing emergent foliage.
Emerged Weeds		
*Alligatorweed	Alternanthera philoxeroides	8-32 fl. oz./A (0.25-1 lbs. (ae) imazapyr) applied in 100 GPA water mix. Ensure 100% coverage of actively growing emergent foliage.
*Arrowhead duck potato	Sagittaria spp	8-16 fl. oz./A (0.25-0.5 lbs. (ae) imazapyr) applied to 100 GPA water mix. Ensure 100% coverage of actively growing emergent foliage.
*Bacopa lemon	Bacopa spp	8-16 fl. oz./A (0.25-0.5 lbs. (ae) imazapyr) applied in 100 GPA water mix. Ensure 100% coverage of actively growing emergent foliage.
*Parrot feather	Myriophyllum aquaticum	Foliage must be above water for sufficient product uptake. Apply 16-32 fl. oz./A (0.5-1 lbs. (ae) imazapyr) (0.2% to 0.5% solution) of this product to actively growing emergent foliage.
*Pennywort	Hydrocotyle spp	8-16 fl. oz./A (0.25-0.5 lbs. (ae) imazapyr) applied in 100 GPA water mix. Ensure 100% coverage of actively growing emergent foliage.
*Pickerelweed	Pontedena cordata	16-24 fl. oz./A (0.5-0.75 lbs. (ae) imazapyr) applied in 100 GPA water mix. Ensure 100% coverage of actively growing emergent foliage.
*Taro wild Coco yam Dasheen Elephant's ear	Colocasia esculenta	32-48 fl. oz./A (1-1.5 lbs. (ae) imazapyr) applied in 100 GPA with a high quality sticker adjuvant. Ensure good coverage of actively growing emergent foliage.
*Water chestnut	Trappa natans	32-48 fl. oz./A (1-1.5 lbs. (ae) imazapyr) applied in 100 GPA with a high quality sticker adjuvant. Ensure good coverage of actively growing emergent foliage.
*Water lily	Nymphaea odorata	16-24 fl. oz./A (0.5-0.75 lbs. (ae) imazapyr) applied in 100 GPA water mix. Ensure 100% coverage of actively growing emergent foliage.
*Water primrose	Ludwigia uruguayensis	32-48 fl. oz./A (1-1.5 lbs. (ae) imazapyr) (0.5% to 0.75% solution). Ensure 100% coverage of actively growing emergent foliage.
Terrestrial/Marginal We	eds	
*Aquatic nightshade Soda apple	Solanum tampicense	16 fl. oz./A (0.5 lb. (ae) imazapyr) (0.25% solution) applied to foliage
*Bamboo Japanese	Phyllostachys spp	24-32 fl. oz./A (0.75-1 lbs. (ae) imazapyr) (0.375% to 0.5% solution) applied to foliage
*Beach vitex	Vitex rotundifolia	2.5% solution + MSO foliar spray. 8.5% solution stem injection (hack and squirt)
Brazilian pepper Christmasberry	Schinus terebinthifolius	16-32 fl. oz./A (0.5-1 lbs. (ae) imazapyr) (0.25% to 0.5% solution) applied to foliage
Cattail	Typha spp	16-32 fl. oz./A (0.5-1 lbs. (ae) imazapyr) (0.25% to 0.5% solution) applied to actively growing green foliage after full leaf elongation. Lower rates will control cattail in the North. Higher rates are needed in the South.
Chinese tallow tree	Sapium sebiferum	8 to 12 fl. oz./A (0.25-0.40 (ae) imazapyr) applied to foliage
		(continued,

Common Name	Scientific Name	Use Rates and Application Directions
Terrestrial/Marginal V	Veeds (continued)	
Cogongrass	Imperata cylindrica	Burn foliage, till area, then fall spray 32 fl. oz./A (1 lb. (ae) imazapyr) (0.5% solution) of this product+MSO applied to new growth.
Cordgrass prairie	Spartina spp	32-48 fl. oz./A (1-1.5 lbs. (ae) imazapyr) (0.5% to 0.75% solution) applied to actively growing foliage
*Cutgrass	Zizaniopsis miliacea	32-48 fl. oz./A (1-1.5 lbs. (ae) imazapyr) (0.5% to 0.75% solution) applied to actively growing foliage
*Elephant grass Napier grass	Pennisetum purpureum	24 fl. oz./A (0.75 lb. (ae) imazapyr) (0.375% solution) applied to actively growing foliage $$
*Flowering rush	Butomus umbellatus L	16-24fl. oz./A (0.5-0.75 lbs. (ae) imazapyr) (0.25% to 0.375% solution) applied to actively growing foliage
Giant reed Wild cane	Arundo donax	32-48 fl. oz./A (1.0-1.5 lbs. (ae) imazapyr) (0.5% to 0.75% solution) applied in spring to actively growing foliage
*Golden bamboo	Phyllostachys aurea	24-32 fl. oz./A (0.75-1 lbs. (ae) imazapyr) (0.375% to 0.5% solution) applied to foliage when plant is actively growing, before setting seedhead. More foliage will result in greater herbicide uptake, resulting in greater root kill.
Junglerice	Echinochloa colonum	24-32 fl. oz./A (0.75-1 lbs. (ae) imazapyr) (0.375% to 0.5% solution) applied to actively growing foliage.
Knapweed	Centaurea spp	Russian knapweed: 16-24 fl. oz./A (0.5-0.75 lbs. (ae) imazapyr) (0.25% to 0.375% solution) + MSO fall applied after senescence begins.
Knotweed, Japanese	Polygonum cuspidatum Fallopia japonica	24-32 fl. oz./A (0.75-1 lbs. (ae) imazapyr) (0.375% to 0.5% solution) applied postemergence to actively growing foliage.
Melaleuca Paperbark tree	Melaleuca quinquenervia	Established stands: apply 48 fl. oz./A (1.5 lb. (ae) imazapyr) (0.75% solution) of this product + glyphosate+spray adjuvant. For best results use MSO as an adjuvant.     Broadcast foliar control: apply aerially in a minimum of 2 passes at 10 gallons/A applied cross treatment.     Spot treatment: use 12.5% of this product+ glyphosate+MSO in water applied as a frill or stump treatment.
*Nutgrass Kili'p'opu	Cyperus rotundus	16 fl. oz./A (0.5 lb. (ae) imazapyr) (0.25% solution) this product+MSO applied early postemergence.
*Nutsedge	Cyperus spp	16-24 fl. oz./A (0.5-0.75 (ae) imazapyr) (0.25% to 0.375% solution) postemergence to foliage or preemergence incorporated, nonincorporated preemergence applications will not control.
Phragmites Common reed	Phragmites australis	32-48 fl. oz./A (1-1.5 lbs. (ae) imazapyr) (0. 5% to 0.75% solution) applied to actively growing green foliage after full leaf elongation. Ensure 100% coverage. If stand has a substantial amount of old stem tissue, mow or burn, allow to regrow to approximately 5 feet tall before retreatment. Lower rates will control phragmites in the North, higher rates are needed in the South.
*Poison hemlock	Conium maculatum	16 fl. oz./A (0.5 lb. (ae) imazapyr) (0.25% solution) this product+MSO applied preemergence to early postemergence to rosette before flowering
Purple loosestrife	Lythrum salicaria	8 fl. oz./A (0.25 lb. (ae) imazapyr) (0.125% solution) applied to actively growing foliage.
Reed canarygrass	Phalaris arundinacea	24-32 fl. oz./A (0.75-1 lbs. (ae) imazapyr) (0.375% to 0.5% solution) applied to actively growing foliage.
Rose swamp	Rosa palustris	16-24 fl. oz./A (0.5-0.75 lbs. (ae) imazapyr) (0.25% to 0.375% solution) applied to actively growing foliage.
Russian olive	Elaeagnus angustifolia	16-32 fl. oz./A (0.5-1 lbs. (ae) imazapyr) (0.5% solution) applied to foliage.

Common Name	Scientific Name	Use Rates and Application Directions	
Terrestrial/Marginal W	Terrestrial/Marginal Weeds (continued)		
Saltcedar Tamarisk	Tamarix spp	Aerial application: 32 fl. oz. (1 lb. (ae) imazapyr) this product+ NIS applied to actively growing foliage during flowering.  Spot treatment: Use 0.50% solution of this product+ NIS and spray to wet foliage. After application, wait at least 2 years before disturbing treated saltcedar. Earlier disturbance can reduce overall control.	
Smartweed	Polygonum spp	16 fl. oz./A (0.5 lb. (ae) imazapyr) (0.25% solution) applied early postemergence	
Sumac	Rhus spp	16-24 fl. oz./A (0.5-0.75 lbs. (ae) imazapyr) (0.25% to 0.375% solution) applied to foliage	
Swamp morningglory Kangkong Water spinach	Ipomoea aquatica	8-16 fl. oz./A (0.25-0.5 lbs. (ae) imazapyr) (0.125% to 0.25% solution) of this product + MSO applied early postemergence	
Torpedo grass	Panicum repens	32 fl. oz./A (1 lb. (ae) imazapyr) (0.5% to 0.375% solution). Ensure good coverage to actively growing foliage.	
*White top Hoary cress	Cardaria draba	8-16 fl. oz./A (0.25-0.5 lbs. (ae) imazapyr) (0.125% to 0.25% solution) applied in spring to foliage during flowering.	
Willow	Salix spp	16-24 fl. oz./A (0.5-0.75 lbs. (ae) imazapyr) (0.25% to 0.375% solution) of this product applied to actively growing foliage. Ensure good coverage.	

<sup>\*</sup>Use not permitted in California unless otherwise directed by supplemental labeling.

# STORAGE AND DISPOSAL

DO NOT contaminate water, food, or feed by storage or disposal.

PESTICIDE STORAGE: DO NOT store below 10°F.

**PESTICIDE DISPOSAL:** Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility. **CONTAINER DISPOSAL:** 

**NOTE:** This product is available in multiple containers. Refer to the Net Contents section of this products labeling for the applicable "Nonrefillable" or "Refillable" designation. Follow the container disposal instructions below that apply to your container type / size.

Nonrefillable Containers 5 Gallons or Less: Nonrefillable container. DO NOT reuse or refill this container. Offer for recycling if available. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by State and local authorities. Plastic containers are also disposable by incineration, or, if allowed by State and local authorities, by burning. If burned stay out of smoke.

Nonrefillable containers larger than 5 gallons: Nonrefillable container. DO NOT reuse or refill this container. Offer for recycling if available. If recycling or reconditioning not available, puncture and dispose of in a sanitary landfill, or by other procedures approved by State and local authorities. Plastic containers are also disposable by incineration, or, if allowed by State and local authorities, by burning. If burned stay out of smoke. Triple rinse or pressure rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Pressure rinse as follows: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 psi for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

Refillable containers larger than 5 gallons: Refillable container. Refill this container with pesticide only. DO NOT reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or a mix tank. Fill the container about 10% full with water. Agitate vigorously or recirculate water with the pump for two minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times.

# WARRANTY DISCLAIMER

The directions for use of this product must be followed carefully. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, (1) THE GOODS DELIVERED TO YOU ARE FURNISHED "AS IS" BY MANUFACTURER OR SELLER AND (2) MANUFACTURER AND SELLER MAKE NO WARRANTIES, GUARANTEES, OR REPRESENTATIONS OF ANY KIND TO BUYER OR USER, EITHER EXPRESS OR IMPLIED, OR BY USAGE OF TRADE, STATUTORY OR OTHERWISE, WITH REGARD TO THE PRODUCT SOLD, INCLUDING, BUT NOT LIMITED TO MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, USE, OR ELIGIBILITY OF THE PRODUCT FOR ANY PARTICULAR TRADE USAGE. UNINTENDED CONSEQUENCES, INCLUDING BUT NOT LIMITED TO INEFFECTIVENESS, MAY RESULT BECAUSE OF SUCH FACTORS AS THE PRESENCE OR ABSENCE OF OTHER MATERIALS USED IN COMBINATION WITH THE GOODS, OR THE MANNER OF USE OR APPLICATION, INCLUDING WEATHER, ALL OF WHICH ARE BEYOND THE CONTROL OF MANUFACTURER OR SELLER AND ASSUMED BY BUYER OR USER. THIS WRITING CONTAINS ALL OF THE REPRESENTATIONS AND AGREEMENTS BETWEEN BUYER, MANUFACTURER AND SELLER, AND NO PERSON OR AGENT OF MANUFACTURER OR SELLER HAS ANY AUTHORITY TO MAKE ANY REPRESENTATION OR WARRANTY OR AGREEMENT RELATING IN ANY WAY TO THESE GOODS.

#### LIMITATION OF LIABILITY

TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, IN NO EVENT SHALL MANUFACTURER OR SELLER BE LIABLE FOR SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES, OR FOR DAMAGES IN THEIR NATURE OF PENALTIES RELATING TO THE GOODS SOLD, INCLUDING USE, APPLICATION, HANDLING, AND DISPOSAL. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, MANUFACTURER OR SELLER SHALL NOT BE LIABLE TO BUYER OR USER BY WAY OF INDEMNIFICATION TO BUYER OR TO CUSTOMERS OF BUYER, IF ANY, OR FOR ANY DAMAGES OR SUMS OF MONEY, CLAIMS OR DEMANDS WHATSOEVER, RESULTING FROM OR BY REASON OF, OR RISING OUT OF THE MISUSE, OR FAILURE TO FOLLOW LABEL WARNINGS OR INSTRUCTIONS FOR USE, OF THE GOODS SOLD BY MANUFACTURER OR SELLER TO BUYER. ALL SUCH RISKS SHALL BE ASSUMED BY THE BUYER, USER, OR ITS CUSTOMERS. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BUYER'S OR USER'S EXCLUSIVE REMEDY, AND MANUFACTURER'S OR SELLER'S TOTAL LIABILITY SHALL BE FOR DAMAGES NOT EXCEEDING THE COST OF THE PRODUCT.

If you do not agree with or do not accept any of directions for use, the warranty disclaimers, or limitations on liability, do not use the product, and return it unopened to the Seller, and the purchase price will be refunded.

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IMAZAPYR GROUP 2 HERBICIDE

# NUFARM POLARIS® AC COMPLETE

#### ACTIVE INGREDIENT:

\*Equivalent to 43.3% 2-[4,5-dihydro-4-methyl-4-(1-methylethyl)-5-oxo-1H-imidazol-2-yl]-3-pyridinecarboxylic acid or 4 pounds acid per gallon.

# CAUTION / PRECAUCION

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand this label, find someone to explain it to you in detail.)

SEE NEXT PAGE FOR FIRST AID AND ADDITIONAL PRECAUTIONARY STATEMENTS

For Medical Emergencies, Call (877) 325-1840.

For Chemical Spill, Leak, Fire, or Exposure, Call CHEMTREC (800) 424-9300.

Have the product container label with you when calling a poison control center or doctor or going for treatment.

In the State of New York, Aquatic Uses are Not Allowed.

# PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS CAUTION / PRECAUCION

No human or domestic animal hazard statements are required. Follow the instructions for Personal Protective Equipment and User Safety Recommendations.

# PHYSICAL AND CHEMICAL HAZARDS

Spray solutions of this product should be mixed, stored, and applied only in stainless steel, fiberglass, plastic, and plastic-lined steel containers.

DO NOT mix, store, or apply this product or spray solutions of this product in unlined steel (except stainless steel) containers or spray tanks.

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EPA Reg. No. 228-570

Manufactured for Nufarm Americas Inc. 11901 S. Austin Avenue Alsip, IL 60803