

# **FORESTS, IN RANGELAND AND PERMANENT PASTURES, AND IN NON-CROP AREAS**

## General Information

## Product Information

Pathfinder II specialty herbicide is a ready-to-use product which is recommended for the control of woody plants through the use of basal bark, cut stump, streamline basal application techniques in forests, in rangeland and permanent pastures, and in non-crop areas including industrial manufacturing and storage sites, rights-of-way such as electrical power lines, communication lines, pipelines, road sides and railroads, and commercial and residential landscapes, fence rows, non-irrigation ditch banks and around farm buildings. Use on these sites may include application to grazed areas as well as establishment and maintenance of wildlife openings.

## Use Precautions

Apply this product only as specified on this label.

Pathfinder II is formulated as a low volatile ester. However, the combination of spray contact with impervious surfaces, such as roads and rocks, and increasing ambient air temperatures, may result in an increase in the volatility potential for this herbicide, increasing a risk for off-target injury to sensitive crops such as grapes and tomatoes.

## Use Restrictions

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

Do not apply using aerial applications.

It is permissible to treat non-irrigation ditch banks, seasonally dry wetlands, flood plains, deltas, marshes, swamps, bogs, and transitional areas between upland and lowland sites. Do not apply to open water (such as lakes, reservoirs, rivers, streams, creeks, salt water bays or estuaries) nor to water present in fresh water wetlands, deltas, marshes, swamps, bogs or potholes, or to salt water marshes below the mean high water mark.

Do not apply Pathfinder II directly to, or otherwise permit it to come into direct contact with, grapes, tobacco, cotton, vegetable crops, flowers or other desirable broadleaf plants, and do not permit spray mists containing it to drift onto them.

### Haying Restrictions

Haying (harvesting of dried forage)

- Do not harvest hay for 14 days after application.

Slaughter Restrictions: During the season of application, withdraw livestock from grazing treated grass at least 3 days before slaughter.

### Maximum Use Rates:

- Apply no more than 2.7 gallons (2 lb ae of triclopyr) per acre per year on rangeland and permanent pastures except for Individual Plant Treatments like low volume basal or cut stump applications.
- Individual Plant Treatments are made directly to ungrazed parts of plants and, therefore, are not restricted by the grazing maximum rate of 2.7 gallons of Pathfinder II (2 lb ae of triclopyr) per acre.
- Apply no more than 8 gallons (6 lb ae of triclopyr) per acre per year on forestry sites.
- Apply no more than 10.7 gallons (8 lb ae of triclopyr) per acre per year on non-crop areas.

### Avoiding Injurious Spray Drift

Applications should be made only when there is little or no hazard from spray drift. Very small quantities of spray, which may not be visible, may seriously injure

susceptible plants. Do not spray when wind is blowing toward susceptible crops or ornamental plants near enough to be injured.

Spray drift can be reduced by using spray pressures no greater than are required to obtain adequate coverage; by using large droplet producing nozzle tips; and by spraying when wind velocity is low. Do not apply with nozzles that produce a fine droplet spray. Do not apply with an orchard type mist blower.

Do not apply on snow or frozen ground.

Untreated trees occasionally can be affected by movement of the herbicide through root grafting with the treated trees.

Since this herbicide moves within the treated plant, do not use Pathfinder II on parts of a multiple stem plant if injury to the untreated portions (cut or standing stems) cannot be tolerated.

Do not apply on ditches used to transport irrigation water. Do not apply where runoff or irrigation water may flow onto agricultural land as injury to crops may result.

Be sure that use of this product conforms to all applicable regulations.

#### Weed Resistance Management:

Triclopyr, the active ingredient in this product, is a Group 4 herbicide based on the mode of action classification system of the Weed Science Society of America. Any weed population may contain or develop plants resistant to Group 4 herbicides. Resistant weeds may dominate the weed population if these herbicides are used repeatedly in the same field. Such resistant weed plants may not be effectively managed using Group 4 herbicides but may be effectively managed utilizing other herbicides alone or in mixtures from a different herbicide Groups that are labeled for control of these weeds and/or by using cultural or mechanical practices. However, a herbicide mode of action classification by itself may not adequately address specific weeds that are resistant to specific herbicides. Consult your local company representative, state cooperative extension service, professional consultants or other qualified authorities to determine appropriate actions for treating specific resistant weeds.

#### Best Management Practices:

Proactively implementing diversified weed control strategies to minimize selection for weed populations resistant to one or more herbicides is recommended. A diversified weed management program may include the use of multiple herbicides with different modes of action and overlapping weed spectrum with or without tillage operations and/or other cultural practices. Research has demonstrated that using the labeled rate and directions for use is important to delay the selection for resistant weeds. Scouting after a herbicide application is important because it can facilitate the early identification of weed shifts and/or weed resistance and thus provide direction on future weed management practices. One of the best ways to contain resistant weed populations is to implement measures to avoid allowing weeds to reproduce by seed or to proliferate vegetatively. Cleaning equipment between sites and avoiding movement of plant material between sites will greatly aid in reducing the spread of resistant weed seed.

#### Limitations, Restrictions, and Exceptions

#### FORESTS, RANGELAND, PASTURES ANSD OTHER NON-CROP AREAS

Individual plant treatments such as basal bark and cut surface applications may be used on any use site listed on the label at a maximum use rate of 10.7 gallons of Pathfinder II (8 lb ae of triclopyr) per acre. These types of applications are made directly to ungrazed parts of plants and, therefore, are not restricted by the grazing maximum rate of 2.7 gallons of Pathfinder II (2 lb ae of triclopyr) per acre.

#### Low Volume Basal Bark Treatment

To control susceptible woody plants with stems less than 6 inches in basal diameter, apply Pathfinder II with a backpack or knapsack sprayer using low pressure and a solid cone or flat fan nozzle. Spray the basal parts of brush and tree trunks in a manner which thoroughly wets the lower 12 to 15 inches of stems, including the root collar area, but not to the point of runoff. Herbicide concentration should vary with size and susceptibility of species treated. Apply at any time, including the winter months, except when snow or water prevent spraying to the ground line.

#### Cut Stumps Treatment

To control resprouting, apply undiluted Pathfinder II to wet the area adjacent to the cambium and bark around the entire circumference and the sides of cut stumps. Sides of stumps should be thoroughly wetted down to the root collar area, but not

to the point of runoff. Treatments may be applied throughout the year, except when snow or water prevent spraying to the ground line. Control may be reduced with treatment during periods of moisture stress as in late summer.

### Streamline Basal Bark Treatment (Southern States)

To control or suppress susceptible woody plants for conifer release or in rangeland and pasture, apply Pathfinder II with a backpack or knapsack sprayer using equipment which provides a directed straight-stream spray. Apply sufficient spray to one side of stems less than 3 inches in basal diameter to form a treated zone that is 6 inches in height. When the optimum amount of spray mixture is applied, the treated zone should widen to encircle the stem within approximately 30 minutes. Treat both sides of stems which are 3 to 4 inches in basal diameter. Direct the spray at bark that is approximately 12 to 24 inches above ground. Pines (loblolly, slash, shortleaf, and Virginia) up to 2 inches in diameter breast height (dbh) can be controlled by directing the spray at the point approximately 4 feet above ground. Best results are achieved when applications are made to young vigorously growing stems that have not developed the thicker bark characteristic of slower growing, understory trees in older stands. This technique is not recommended for scrub and live oak species, including blackjack, turkey, post, live, bluejack and laurel oaks. Apply from approximately 6 weeks prior to hardwood leaf expansion in the spring until approximately 2 months after leaf expansion is completed. Do not apply when snow or water prevent spraying at the desired height above ground level.

### Application Methods

#### Maximum Use Rates:

- Apply no more than 2.7 gallons (2 lb ae of triclopyr) per acre per year on rangeland and permanent pastures except for Individual Plant Treatments like low volume basal or cut stump applications.
- Individual Plant Treatments are made directly to ungrazed parts of plants and, therefore, are not restricted by the grazing maximum rate of 2.7 gallons of Pathfinder II (2 lb ae of triclopyr) per acre.

- Apply no more than 8 gallons (6 lb ae of triclopyr) per acre per year on forestry sites.

- Apply no more than 10.7 gallons (8 lb ae of triclopyr) per acre per year on non-crop areas.

#### Method

[Cut Stump](#)

[Basal bark treatment](#)

[Cut Stump](#)

[Basal bark treatment](#)

[Cut Stump](#)

[Basal bark treatment](#)

#### Rates

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#### Restricted Entry Interval

12 hours

#### Timings

[Cut stump: Throughout the year.](#)

[Streamline Basal Bark Treatment: Approximately 6 weeks prior to hardwood leaf expansion in the spring until approximately 2 months after leaf expansion is completed.](#)

[Low volume Basal Bark Treatment: Any time, including the winter months.](#)