



# Crossbow

## Specialty Herbicide

### Low Volatile Weed and Brush Herbicide

For the control of most kinds of unwanted trees and brush, as well as annual and perennial broadleaf weeds on rangeland, permanent grass pastures, conservation reserve program (CRP) acres, fence rows, non-irrigation ditchbanks, roadsides, other non-crop areas and industrial sites

Active Ingredient(s):

2,4-dichlorophenoxyacetic acid, butoxyethyl ester .....	34.4%
triclopyr BEE: 3,5,6-trichloro-2-pyridinyloxyacetic acid, butoxyethyl ester .....	16.5%
Other Ingredients .....	49.1%
Total .....	100.0%

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Contains Petroleum Distillates

Acid Equivalents: 2,4-dichlorophenoxyacetic acid - 23.7% - 2 lb/gal triclopyr - 11.9% - 1 lb/gal

Keep Out of Reach of Children

# CAUTION

**Refer to label booklet for additional precautionary information and Directions for Use.**

Use of this product in certain portions of California, Oregon, and Washington is subject to the January 22, 2004 Order for Injunctive Relief in Washington Toxics Coalition et al. v. EP, C01-0132C (W.D. W.A.).

**Notice:** Read the entire label. Use only according to label directions. Before using this product, read Warranty Disclaimer, Inherent Risks of Use, and Limitation of Remedies at end of label booklet. If terms are unacceptable, return at once unopened. In case of emergency endangering health or the environment involving this product, call 1-800-992-5994.

Agricultural Chemical: Do not ship or store with food, feeds, drugs or clothing.

Distributed by: **Southern Agricultural Insecticides, Inc.**

P.O. Box 218

Palmetto, FL 34220

EPA Reg. No. 62719-260-829

B1

EPA Est. No. 829-FL-1

## **Precautionary Statements Hazards to Humans and Domestic Animals**

**Harmful If Swallowed • Causes Moderate Eye Irritation • Prolonged Or Frequently Repeated Skin Contact May Cause Allergic Reactions In Some Individuals**

**Avoid contact with eyes or clothing. Wash thoroughly with soap and water after handling and before eating, drinking chewing gum, or using tobacco.**

### **Personal Protective Equipment (PPE)**

Some materials that are chemical-resistant to this product are made of barrier laminate, nitrile rubber, neoprene rubber, and viton. If you want more options, follow the instructions for category E on an EPA chemical resistance category selection chart.

**All mixers, loaders, applicators, flaggers, and other handlers must wear:**

• Long-sleeved shirt and long pants • Shoes plus socks • Chemical-resistant gloves made of any waterproof material such as barrier laminate, nitrile rubber, neoprene rubber, and viton • Protective eyewear • Chemical resistant apron when mixing or loading, cleaning up spills or equipment, or otherwise exposed to the concentrate

See engineering controls for additional requirements

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.

### **Engineering Controls**

When handlers use closed systems or enclosed cabs in a manner that meets the requirements listed in the Worker Protections Standard (WPS) for agricultural pesticides [40 CFR 170.240 (d) (4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

### **User Safety Recommendations**

Users should:

- Wash hands 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.

### **First Aid**

**If swallowed:** Immediately call a poison control center or doctor. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give any liquid to the person. Do not give anything by mouth to an unconscious person.

**If in eyes:** Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-992-5994 for emergency medical treatment information.

**Note to Physician:** This product may pose an aspiration pneumonia hazard. Contains petroleum distillates.

### **Environmental Hazards**

This pesticide is toxic to fish and may be toxic to aquatic invertebrates. Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark. Drift or runoff may adversely affect fish and nontarget plants. Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas. Do not contaminate water when disposing of equipment washwaters.

This chemical has properties and characteristics associated with chemicals detected in groundwater. The use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination.

### **Physical or Chemical Hazards**

**Combustible.** Do not use or store near heat or open flame.

## Directions for Use

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

Read all Directions for Use carefully before applying.

### Storage and Disposal

Do not contaminate water, food or feed by storage or disposal.

**Pesticide Storage:** Store above 10°F or agitate before use.

**Pesticide Disposal:** Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of federal law. If these wastes cannot be disposed of by use according to the label instructions, contact your State Pesticide or Environmental Control Agency, or the hazardous waste representative at the nearest EPA Regional Office for guidance.

**Container Handling:** Nonrefillable container. Do not reuse or refill this container.

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 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. **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. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures allowed by state and local authorities.

## **General Information**

Crossbow® specialty herbicide is recommended for control of most species of unwanted woody plants, as well as annual and perennial broadleaf weeds, growing on rangeland, permanent grass pastures, CRP, fence rows, non-irrigation ditchbanks, roadsides, other non-crop areas, and industrial sites.

## **General Use Precautions and Restrictions**

For use on plants in non-crop and non-timber areas only. Not for use on crops, timber, or other plants being grown for sale or other commercial use, or for commercial seed production, or for research purposes.

Apply this product only as specified on this label.

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

## **Application Restrictions**

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.

## **Entry Restrictions**

Do not allow people (or pets) to enter the treated area until sprays have dried.

**This product may not be applied to forage that is to be cut and sold for commercial purposes.**

## **Chemigation**

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

Foliar sprays should be applied during warm weather when brush and weeds are actively growing. Application under drought conditions may provide less than desirable results. Use low spray pressures to minimize spray drift. **Apply Crossbow in a manner to avoid contacting nearby susceptible crops or other desirable plants and to avoid contaminating water intended for irrigation or domestic use. Read and follow all use precautions given on this label.**

Do not use on bentgrass. Do not use on newly seeded grasses until grass has established a good root system and is tillering.

Do not reseed pastures within a minimum of three weeks after treatment.

Do not spray pastures containing desirable broadleaf forbs, especially legumes such as clover, unless injury or loss of such plants can be tolerated. However, the stand and growth of established grasses usually is improved, particularly when rainfall is adequate and grazing is deferred.

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

Under conditions which are conducive to evaporation (high temperatures and low humidity), vapors from this product may injure susceptible crops growing nearby. Excessive amounts of this herbicide in the soil may temporarily inhibit seed germination and plant growth.

Crossbow 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.

## **Grazing and Haying Restrictions**

Except for lactating dairy animals, there are no grazing restrictions following application of this product.

**Grazing Lactating Dairy Animals:** Do not allow lactating dairy animals to graze treated areas until the next growing season following application of this product.

Do not harvest hay for 14 days after application.

Grazed areas of non-cropland and forestry sites may be spot treated if they comprise no more than 10% of the total grazable area.

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

## **Avoid Injurious Spray Drift**

Applications should be made only when hazards from spray drift are at a minimum. 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 adding a spray thickening agent such as Nalco-Trol, Liberate, Chem-Trol or equivalent to the spray mixture. If a spray thickening agent is used, follow all use recommendations and precautions on the product label.

With ground broadcast equipment, drift can be reduced by keeping the spray boom as low as possible; by applying no less than 20 gallons of spray per acre; by keeping the operating spray pressures at the lower end of the manufacturer's recommended pressures for the specific nozzle type used (low pressure nozzles are available from spray equipment manufacturers); and by spraying when the wind velocity is low (follow state regulations). Avoid calm conditions which may be conducive to air inversions. In hand-gun applications, select the minimum spray pressure that will provide adequate plant coverage (without forming a mist). The use of a mistblower is not recommended.

With aerial applications, use a drift control system such as Microfoil or Thru-Valve booms, or use Nalco-Trol or Arborchem 38-F drift control additive or equivalent. Keep spray pressures low enough to provide coarse spray droplets. Do not use a thickening agent with the Microfoil or the Thru-Valve booms, or other systems that cannot accommodate thick sprays.

## **Spray Drift Management**

Avoiding spray drift at the application site is the responsibility of the applicator and the grower. The interactions of many equipment and weather related factors determine the potential for spray drift. The applicator and the grower are responsible for considering all these factors when making decisions.

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

### **Droplet Size**

When applying sprays that contain 2,4-D as the sole active ingredient, or when applying sprays that contain 2,4-D mixed with active ingredients that require a coarse or coarser spray, apply only as a coarse or coarser spray (ASAE standard 572) or a volume mean diameter of 385 microns or greater for spinning atomizer nozzles.

When applying sprays that contain 2,4-D mixed with other active ingredients that require a medium or more fine spray, apply only as a medium or coarser spray (ASAE standard 572) or a volume mean diameter of 300 microns or greater for spinning atomizer nozzles.

### **Wind Speed**

Do not apply at wind speeds greater than 10 mph. Only apply this product if the wind direction favors on-target deposition and there are not sensitive areas (including, but not limited to, residential areas, bodies of water, known habitat for nontarget species, nontarget crops) within 250 feet downwind. If applying a medium spray, leave one swatch unsprayed at the downwind edge of the treated field.



## **Temperature Inversions**

If applying at wind speeds less than 3 mph, the applicator must determine if: a) conditions of temperature inversion exist, or b) stable atmospheric conditions exist at or below nozzle height. Do not make applications into areas of temperature inversions or stable atmospheric conditions.

## **Susceptible Plants**

Do not apply under circumstances where spray drift may occur to food, forage, or other plantings that might be damaged or crops thereof rendered unfit for sale, use or consumption. Susceptible crops include, but are not limited to, cotton, okra, flowers, fruit trees, grapes (in growing stage), fruit trees (foliage), soybeans (vegetative stage), ornamentals, sunflowers, tomatoes, beans, and other vegetables, or tobacco. Small amounts of spray drift that may not be visible may injure susceptible broadleaf plants.

## **Other State and Local Requirements**

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

## **Equipment**

All aerial and ground application equipment must be properly maintained and calibrated using appropriate carriers or surrogates.

## **Aerial Application**

The boom length must not exceed 75% of the wingspan or 90% of the rotor blade diameter.

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

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

## Ground Boom Application

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

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

## Mixing Directions

Crossbow in water forms an emulsion (not a solution), and separation may occur unless the spray mixture is agitated continuously.

**Water Spray:** Fill the spray tank about half full with clean water. Then add the Crossbow and complete filling the tank with agitation running. Mix thoroughly and continue moderate agitation while spraying.

Size of Sprayer (Gallons)	Amount of Crossbow Required for Spray Mixture		
	1%	1.5%	4%
1	1 1/3 fl oz	2 fl oz	5 1/3 fl oz
3	4 fl oz	6 fl oz	1 pt
5	6 2/3 fl oz	10 fl oz	1 2/3 pt
50	2 qt	3 qt	2 gal
100	1 gal	1.5 gal	4 gal

## Application Instructions

### Restrictions:

### Rangeland and Permanent Pastures

- **Preharvest Interval:** Do not cut forage for hay within 14 days of application. For program lands, such as CRP, consult program rules to determine whether grass or hay may be used. The more restrictive requirements of the program rules or this label must be followed.

- **Maximum Application Rate:** Apply no more than 1 gallon (1 lb ae triclopyr + 2 lb ae 2,4-D) per acre per growing season on range and pasture sites, including rights of way, fence rows or any area where grazing or harvesting is allowed.
- Use 2 gallons or more of spray solution per acre.
- Do not make more than one application per year.
- Do not apply within 30 days of previous application.
- If grass is to be cut for hay, Agricultural Use Requirements for the Worker Protection Standard are applicable.

## **Non-Cropland**

### **Postemergence (Annual and Perennial Weeds):**

- Do not make more than two applications per year
- Maximum of 1 gallon (1 lb ae triclopyr + 2 lb ae per acre 2,4-D) per application.
- Minimum of 30 days between application.
- Use 2 gallons or more of spray solution per acre.

### **Postemergence (Woody Plants):**

- Limited to 1 application per year.
- Maximum of 2 gallons (2 lb ae triclopyr + 4 lb ae per acre 2,4-D) per year.
- Use 2 gallons or more of spray solution per acre.

Applications to non-cropland areas are not applicable to treatment of commercial timber or other plants being grown for sale or other commercial use, or for commercial seed production, or for research purposes.

## **General Weed Control**

### **Broadcast Treatment (Ground Equipment and Helicopter)**

Use up to 1 1/2 gallons of Crossbow per acre in enough water to deliver 10 to 30 gallons of total spray per acre. Apply when weeds are actively growing. Best time for treatment of biennial and winter annual weeds is when the plants are in the rosette stage. Treat when plants are actively growing. Re-treatment of hard-to-control weeds such as field bindweed, chicory, dogfennel, goldenrod, horsenettle, kudzu, milkweed, perennial sowthistle, leafy spurge, and Canada thistle may be necessary. See recommendations regarding the use of drift control additives as listed in the General Use Precautions section under Avoid Injurious Spray Drift.

## Spot Treatment

To control broadleaf weeds in small areas with a hand sprayer, use 4 to 6 fl oz of Crossbow in 3 gallons of water and spray to thoroughly wet all foliage.

## High Volume Foliar Treatment or Spot Treatment

1% Mixture	1% Mixture	1 to 1.5% Mixture	1.5% Mixture
Foliar Broadcast Applications			
1 qt/acre	2 qt/acre	2 - 4 qt/acre	4 qt/acre
blueweed (B)	bedstraw, annual (A)	amaranth, spiny (A)	bindweed, field (P) (TG)
buttercup, annual (A)	bluebur (A)	buttercup, tall (P)	carrot, wild (B)
horseweed, (marestail) (A)	burdock (B)	chickweed, mouseear (P)	chicory (P) suppression
lambquarters, common (A)	clover, white sweet (B)	clover, white (P)	cinquefoil (A,B,P)
mustard, wild (A)	clover, bur (A)	dandelion (P)	dogfennel (P) suppression
ragweed, common (A)	cocklebur (A)	dock, curly (P)	fleabane, annual (A,B)
spurge, thyme-leaf (A)	croton, wooly (A)	galinsoga, hairy (A)	goldenrod (P) (TG)
	dogbane, hemp (P) (TG)	goatsbeard (A,B)	horsenettle (P)
	ironweed, tall (P)	henbit (B,WA)	kudzu (P) (TG)
	lettuce, wild (A,WA)	ironweed, western (P)	marshelder (A)
	mustard, tansy (WA)	ivy, ground (P)	milkweed (P) suppression
	radish, wild (A)	kochia (A)	pepperweed, perennial (P)
	ragwort, tansy (B)	lespedeza (A)	pokeweed (P)
	shepherd's purse (WA)	oxalis (P)	sesbania, hemp (A)
		pennycress, field (WA)	sowthistle, perennial (P) (TG)

**1% Mixture**

**1% Mixture**

**1 to 1.5% Mixture**

**1.5% Mixture**

**Foliar Broadcast Applications**

1 qt/acre

2 qt/acre

2 - 4 qt/acre

4 qt/acre

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pepperweed, field  
(A,B)

spurge, leafy (P)  
(TG)

pigweed, redroot  
(A)

thistle, bull (B)

plantain, broadleaf  
(P)

thistle, Canada (P)  
(TG)

plantain, narrow-  
leaf (P)

thistle, musk (nod-  
ding) (B)

purslane, annual (A)  
sneezeweed, bitter  
(A)

yarrow (P)

sowthistle, annual  
(A)

sunflower (A)

thistle, Russian (A)

vetch (P)

violet, wild (P)

wormwood, biennial  
(B)

yellow rocket (P,B)

(A) Annual; (B) Biennial; (WA) Winter Annual; (P) Perennial; (TG) Top growth control only. Repeat treatment may be necessary.

**Note:** Best time for treatment of biennial and winter annuals is when plants are in the rosette stage.

### **Use in Liquid Nitrogen Fertilizer**

Crossbow may be combined with liquid nitrogen fertilizer suitable for foliar application to accomplish weeding and feeding of grass pastures in one operation. Use Crossbow in accordance with recommendations for grass pastures as given on this label. Use liquid fertilizer at rates recommended by supplier or Extension Service Specialist. Test for mixing compatibility using desired procedure and spray mix proportions in clear glass jar before mixing in spray tank. A compatibility aid such as Unite or Compex may be needed in some situations. **Compatibility is best with straight liquid nitrogen fertilizer solutions. Mixing with N-P-K solutions or suspensions may not be satisfactory even with the addition of compatibility aid.**

Premixing Crossbow with 1 to 4 parts water may help in difficult situations.

Fill the spray tank about half full with the liquid fertilizer, then add the herbicide with agitation and complete filling the tank with fertilizer. Apply immediately and continue agitation in the spray tank during application. **Do not store spray mixture.** Application during very cold weather (near freezing) is not advisable.

**Note:** Do not use spray equipment for other applications to land planted, or to be planted to susceptible crops or desirable plants, **unless** it has been determined that all phytotoxic herbicide residue has been removed by thorough cleaning of the equipment.

### **Conservation Reserve Program (CRP) for Established Permanent Grass Stands**

Use Crossbow on CRP acres only when the perennial grasses are established. Conditions that stress grasses, such as drought, will increase potential for injury to the grasses.

**Restrictions:** When applying to CRP lands, follow all applicable state and federal regulations. Follow the most severe grazing restriction imposed by the pesticide label or by the USDA Acreage Conservation Reserve Program. After that time period, follow local (CRP) guidelines regarding cropping and haying restrictions. Do not use Crossbow if legumes are a desired cover crop during CRP. Do not use on bentgrass or newly seeded grass.

### **Broadcast Application (Ground or Aerial)**

Apply 1 to 2 quarts of Crossbow for small weed control or up to 1.5 gallons of Crossbow for deep-rooted perennial and susceptible woody species control using enough water to deliver 10 or more gallons of total spray volume per acre. Follow precautions and recommendations outlined under Foliar Low-Volume Broadcast Applications.

For basal and dormant brush treatments, follow application directions listed in Woody Plant Control.

### **Woody Plant Control**

#### **Easy to Control Species**

1.5 gallons per acre broadcast application or 1 to 1.5% mixtures for high volume foliar applications.

alder	cottonwood	sassafras (top growth)
ash	dogwood	scotch broom
beech	elderberry	sumac
birch	hawthorn	sycamore
blackberry	honeysuckle	tamarack
black locust	maples (except bigleaf and vine <sup>1</sup> )	
boneset	multiflora rose	wax myrtle (top growth)
cascara	poison ivy	white oak
Ceanothus spp.	poison oak	wild grape
cherry (except black)		willow

<sup>1</sup>Basal or dormant stem application only

## **Harder to Control Species**

High volume applications, 1.5% mixture, conventional basal or dormant stem applications are recommended. A broadcast rate of 2 gallons per acre will increase the degree of control of these species.

buckbrush ( <i>Symphoricarpos</i> spp.) (suppression)	sweetgum
common persimmon (suppression)	trumpet creeper (suppression)
elm (except winged elm)	Virginia creeper (suppression)
hazel	
honeylocust (suppression)	
pine (suppression)	
Russian olive	
salmonberry (suppression)	

## **High Volume Foliar Applications Through Handguns**

Using a power or hand pressured spray gun, apply a foliar wetting spray containing 1 to 1 1/2 gallons of this product in sufficient water to make 100 gallons of total spray mix. See mixing chart under Mixing Directions for preparing small amounts of this 1 to 1.5% spray mix.

Spray to give thorough coverage of the foliage, wetting all leaves and green stems to the drip point. Depending on the plant size and foliage density, the total amount of required spray is usually 100 to 200 gallons per sprayed acre.

For best results, applications should be made when woody plants are actively growing. This is most likely to occur for a period after full leaf in the spring to early summer when moisture and temperature are favorable. For multiflora rose control, the best time for treatment may be expected during the early to mid-flowering stage.

The required spray volume will increase substantially if the brush exceeds 5 feet in height. Brush over 8 feet tall is difficult to treat efficiently. Large brush or trees may be controlled better by basal or mechanical methods.



### **Foliar Broadcast Sprays (Ground Equipment and Helicopter)**

Apply 1.5 to 4 gallons of this product in enough water to deliver 10 to 30 gallons total spray per acre. Use a boom type or other broadcast spray equipment that provides uniform spray coverage over the top of the foliage and make applications when plants are growing well. The favorable period for treatment is most likely to occur after full leaf in the spring and continue into early summer, depending on soil moisture and other conditions. Follow-up treatment with foliar high-volume or basal type treatments may be needed, especially if treating under less favorable conditions.

### **Aerial Application (Helicopter Only)**

Use Nalco-Trol or equivalent drift control additive as recommended by the manufacturer of the Microfoil boom, Thru-Valve boom, or equivalent drift control system. Thickened sprays prepared by using high viscosity invert systems or other drift reducing systems may be utilized if they control spray drift as well as Nalco-Trol or the above mentioned booms. If a spray thickening agent is used, follow all recommendations and precautions on the product label. Do not use a thickening agent with the Microfoil or Thru-Valve booms or other systems that cannot accommodate thick sprays.

### **Dormant Stem Applications**

To control susceptible woody species such as multiflora rose and blackberry, mix 1 to 4 gallons of this product in diesel oil, No. 1 or No. 2 fuel oil or kerosene to make 100 gallons of spray and apply to thoroughly wet upper and lower stems including the root collar and any ground sprouts. Treat at any time when the brush is dormant and the bark is dry. Best results have been obtained with late winter to early spring applications. Do not treat when snow or water prevent spraying to the ground line. For the most susceptible woody species such as blackberries, substitute other diluents or oils only in accordance to manufacturer's recommendations. Apply mixture to thoroughly wet upper and lower stems as described above. The more tolerant species may require total oil carrier for better control. Brush over 8 feet in height is difficult to treat efficiently. Basal or mechanical methods may be better suited for control of large trees.

## **Conventional Basal Bark and Stump Applications**

For control of susceptible woody plants and to prevent or control regrowth from cut stumps, mix 4 gallons of this product in diesel oil, No. 1 or No. 2 fuel oil or kerosene to make 100 gallons of spray mixture. Spray the basal parts of brush or trees to a height of 15 to 20 inches from the ground. Thoroughly wet all the basal bark area including crown buds and ground sprouts. Spray runoff should visibly wet the ground at the base of the stems or trunks. Basal and cut stump applications can be made at any time of the year except when snow or water prevent spraying to the ground line. Best results have been obtained with winter to early spring applications. Basal treatments are less effective on trees with diameters larger than 6 to 8 inches. For better regrowth control, cut the larger trees and treat the stumps. Treat stumps the same as the trunks and also treat the freshly cut surface. The cambium layer just inside the bark is the most important area of the cut surface to treat.

## **Thinline Basal Applications**

For the control of small multiflora rose, apply a horizontal thin line of undiluted herbicide across all the stems at a height where the stems are less than 1/2 inch in diameter and have thinner bark to penetrate. For bushes with large numbers of stems (over 3 or 4), coverage may be difficult. Basal bark or dormant stem applications may be more effective. Treat when the bark is dry and rain is not forecasted. Best time for multiflora rose control using this application method is during early spring to early summer, when the plants are just about breaking dormancy to actively growing. Apply approximately 20 mL undiluted product per bush. Wherever a stem over 1/2 inch in diameter is treated, it should be completely ringed with herbicide to obtain best results. Additional herbicide is likely to be needed for adequate coverage of these larger stems in a bush or clump.

Old stems with thickened bark require more herbicide than young stems with thin bark. Where regrowth is treated, better root kill may result if resprouts are treated after they are one year old and the bark has lost its green color, but before sprouts reach one inch in diameter.

### **Terms and Conditions of Use**

If terms of the following Warranty Disclaimer, Inherent Risks of Use and Limitation of Remedies are not acceptable, return unopened package at once to the seller for a full refund of purchase price paid. To the extent permitted by law, otherwise, use by the buyer or any other user constitutes acceptance of the terms under Warranty Disclaimer, Inherent Risks of Use and Limitation of Remedies.

### **Warranty Disclaimer**

Southern Agricultural Insecticides, Inc. warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated on the label when used in strict accordance with the directions, subject to the inherent risks set forth below. To the extent permitted by law, Southern Agricultural Insecticides, Inc. MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR ANY OTHER EXPRESS OR IMPLIED WARRANTY.

### **Inherent Risks of Use**

It is impossible to eliminate all risks associated with use of this product. Crop injury, lack of performance, or other unintended consequences may result because of such factors as use of the product contrary to label instructions (including conditions noted on the label, such as unfavorable temperatures, soil conditions, etc.), abnormal conditions (such as excessive rainfall, drought, tornadoes, hurricanes), presence of other materials, the manner of application, or other factors, all of which are beyond the control of Southern Agricultural Insecticides, Inc. or the seller. To the extent permitted by law, all such risks shall be assumed by buyer.

### **Limitation of Remedies**

To the extent permitted by law, the exclusive remedy for losses or damages resulting from this product (including claims based on contract, negligence, strict liability, or other legal theories), shall be limited to, at Southern Agricultural Insecticides', Inc. election, one of the following:

1. Refund of purchase price paid by buyer or user for product bought, or
2. Replacement of amount of product used.

To the extent permitted by law, Southern Agricultural Insecticides, Inc. shall not be liable for losses or damages resulting from handling or use of this product unless Southern Agricultural Insecticides, Inc. is promptly notified of such loss or damage in writing. To the extent permitted by law, in no case shall Southern Agricultural Insecticides, Inc. be liable for consequential or incidental damages or losses.

The terms of the Warranty Disclaimer, Inherent Risks of Use and Limitation of Remedies cannot be varied by any written or verbal statements or agreements. No employee or sales agent of Southern Agricultural Insecticides, Inc. or the seller is authorized to vary or exceed the terms of the Warranty Disclaimer or Limitation of Remedies in any manner.