

# SIGHTLINE™



Active Ingredient:	By Wt
Triclopyr: 3,5,6-trichloro-2-pyridinylxyacetic acid,	
butoxyethyl ester.....	61.6%
INERT INGREDIENTS.....	38.4%
<b>Total:</b>	<b>100.0%</b>

**NET CONTENTS:** Contains petroleum distillates  
Acid Equivalent: triclopyr – 44.3% - 4 lb/gal

Contains 2 lbs. active ingredient per gallon

## KEEP OUT OF REACH OF CHILDREN CAUTION

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

See Side/Back Panel for Additional Precautionary Statements, First Aid and Directions for Use

**STOP** - Read the label before use.

**EPA Reg. No.** 74779-8

**EPA Est. No.** 063416-MN-001

<b>FIRST AID</b>	
<b>IF SWALLOWED:</b>	<ul style="list-style-type: none"><li>• Call a poison control center or doctor immediately for treatment advice.</li><li>• Have person sip a glass of water if able to swallow.</li><li>• Do not induce vomiting unless told to do so by a poison control center or doctor.</li><li>• Do not give anything by mouth to an unconscious person.</li></ul>
<b>IF ON SKIN OR CLOTHING</b>	<ul style="list-style-type: none"><li>• Take off contaminated clothing.</li><li>• Rinse skin immediately with plenty of water for 15-20 minutes.</li><li>• Call a poison control center or doctor for treatment advice.</li></ul>
<b>Have the product container or label with you when calling a poison control center or doctor or going for treatment.</b>	
<b>HOT LINE NUMBER</b> For 24-Hour Medical Emergency Assistance (Human or Animal), or Chemical Emergency Assistance (Spill, Leak, or Accident). Call CHEMTRAC at <b>1-800-424-9300</b> .	

## PRECAUTIONARY STATEMENTS

### HAZARDS TO HUMANS AND DOMESTIC ANIMALS

**CAUTION:** Harmful if swallowed, inhaled, or absorbed through skin. Avoid contact with eyes, skin, or clothing. Avoid breathing mists or vapors. This product may cause skin sensitization reactions in some people.

### Personal Protective Equipment (PPE)

Some materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions for category E on an EPA chemical resistance category selections chart. Applicators and other handlers must wear:

- Coveralls
- Chemical-resistant gloves such as nitrile or butyl
- Shoes plus socks
- Protective eyewear

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exists, use detergent and hot water. Keep and wash PPE separately from other laundry.

**Engineering Controls:** When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection 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 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.

### Distributed for:



**Rainbow™**  
**Ecoscience**

Rainbow Treecare Scientific Advancements DBA:  
**Rainbow Ecoscience**  
11571 K-Tel Dr. Minnetonka, MN 55343  
1-877-272-6747  
[www.rainbowecoscience.com](http://www.rainbowecoscience.com)

## ENVIRONMENTAL HAZARDS

This pesticide is toxic to fish. Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment wash waters or rinsate.

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

Do not use or store near heat or open flame. Do not cut or weld container.

## 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.

Not intended for manufacturing or formulating.

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. WA).

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. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

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

## 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 apply to uses that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted-entry interval of 12 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, such as plants, soil, or water, is:

- Coveralls
- Chemical-resistant gloves
- Shoes plus socks
- Protective eyewear

**AGRICULTURAL USE REQUIREMENTS FOR FORESTRY USES:** For use of this product on forestry sites, follow PPE and Reentry restrictions in the "Agricultural Use Requirements" section of this label.

## USE REQUIREMENTS FOR AREAS OTHER THAN FORESTRY USES:

No worker Protection Standard worker entry restrictions or worker notification requirements apply when this product is applied to non-cropland.

## 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 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. Entry Restrictions for Non-WPS Uses: For applications to non-cropland areas, do not allow entry into areas until sprays have dried, unless applicator and other handler PPE is worn.

## STORAGE & DISPOSAL

Do not contaminate water, food, or feed by storage or disposal. Open dumping is prohibited.

**PESTICIDE STORAGE:** Store above 28° F or agitate before use.

**PESTICIDE DISPOSAL:** Pesticide, spray mixture, or rinse water that cannot be used according to label instructions must be disposed of according to applicable federal, state, or local procedures.

## CONTAINER DISPOSAL:

Nonrefillable container. Do not reuse or refill this container. Triple rinse or pressure rinse (or equivalent) promptly after emptying. Offer for recycling, if available or puncture and dispose of in a sanitary landfill, or incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke.

(non-refillable <5 gallons) 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 procedure two more times.

(non-refillable >5 gallons) 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.

## GENERAL INFORMATION

Sightline will control invasive and unwanted woody plants, vines, and broadleaf weeds in forests, industrial manufacturing and storage sites, rights of way such as electrical power lines, communication lines, pipelines, roadsides and railroads, fence rows, non-irrigation ditch banks, and around farm buildings. It is also effective in controlling invasive and unwanted woody plants and vines growing in landscape plantings and wooded areas of commercial and residential landscapes, parks, golf courses, airport grounds, and cemeteries. These sites may include grazed areas as well as establishment and maintenance of wildlife openings.

## GENERAL USE PRECAUTIONS AND RESTRICTIONS

- The maximum use rate for triclopyr is 1 lb ai/A and one application per year for range and pasture sites, including rights-of-way, fence rows, and any other area where grazing or harvesting is allowed. The maximum application rate for triclopyr on forestry sites is 6 lbs ai/A per year, and the maximum application rate on all other use sites is 8 lbs ai/A per year.
- The state of Arizona has not approved Sightline for use on plants grown for commercial production; specifically forests grown for commercial timber production, or on designated grazing areas.
- When applying this product in tank mix combination, follow all applicable use directions and precautions on each manufacturer's label.
- For use only by certified applicators approved by the State in which this product is applied.
- Not for use on residential lawns or turfgrass.
- 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.

- Do not apply this product using mist blowers unless a drift control additive, high viscosity inverting system, or equivalent is used to control spray drift.
- Sprays applied directly to Christmas trees may result in conifer injury. When treating unwanted vegetation in Christmas tree plantations, care should be taken to direct sprays away from conifers.
- Do not apply Sightline directly to, or otherwise permit it to come into contact with grapes, tobacco, vegetable crops, flowers, or other desirable broadleaf plants and do not permit spray mists containing it to drift onto them.
- It is permissible to treat non-irrigation ditch banks, seasonally dry wetland, 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, saltwater bays, or estuaries.

## CHEMIGATION

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

### AVOID 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. It is suggested that a continuous smoke column at or near the spray site or a smoke generator on the spray equipment be used to detect air movement, lapse conditions, or temperature inversion (stable air). If the smoke layers or indicates a potential of hazardous spray drift, do not spray.

**AERIAL APPLICATION (Helicopter Only):** For aerial application on rights-of-way or other areas near susceptible crops, use an agriculturally registered spray thickening drift control additive as recommended by the manufacturer or apply through 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 are made as drift-free as are mixtures containing an agriculturally registered thickening agent or applications made with the Microfoil boom or Thru Valve boom. If a spray thickening agent is used, follow all use recommendations and precautions on the product label. Do not use thickening agent with the Microfoil boom, Thru Valve boom, or other systems that cannot accommodate thick sprays.

Reference within this label to a particular piece of equipment produced or available from other parties provided without consideration for use by the reader at its discretion and subject to the reader's independent circumstances, evaluation, and expertise. Such reference by Rainbow Treecare Scientific Advancements is not intended as an endorsement of such equipment, shall not constitute a warranty (express or implied) of such equipment, and is not intended to imply that other equipment is not available and equally suitable. Any discussion of methods of use of such equipment does not imply that the reader should use the equipment other than is advised in directions available from the equipment's manufacturer. The reader is responsible for exercising its own judgment and expertise, or consulting with sources other than Rainbow Treecare Scientific Advancements in selecting and determining how to use its equipment.

**Spray Drift Management:** Avoiding Spray drift at the application site is the responsibility of the applicator. The interaction 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. The following drift management requirements must be followed to avoid off-target drift movement from aerial applications:

1. The distance of the outer most nozzles on the boom must not exceed 3/4 the length of the wingspan or rotor.
2. Nozzles must always point backward parallel with the air stream and never be pointed downwards more than 45 degrees.

Where states have more stringent regulations, they shall be observed.

The applicator should be familiar with and take into account the information covered in the Aerial Drift Reduction Advisory Information.

**Information on Droplet Size:** The most effective way to reduce drift potential is to apply large droplets. The best drift management strategy is to apply the largest droplets that provide sufficient coverage and control. Applying larger droplets reduces drift potential, but will not prevent drift if applications are made improperly, or under unfavorable environmental conditions (See Wind, Temperature and Humidity, and Temperature Inversions).

### Controlling Droplet Size:

- **Volume** – Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets.
- **Pressure** – Do not exceed the nozzle manufacturer's recommended pressures. For many nozzle types lower pressure produces larger droplets. When higher flow rates are needed, use higher flow rate nozzles instead of increasing pressure.
- **Number of Nozzles** – Use the minimum number of nozzles that provide uniform coverage.
- **Nozzle Orientation** – Orienting nozzles so that the spray is released parallel to the air stream produces larger droplets than other orientations and is the recommended practice. Significant deflection from horizontal will reduce droplet size and increase drift potential.
- **Nozzle Type** – Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles. Solid stream nozzles oriented straight back produce the largest droplets and the lowest drift.

**Boom Length** – For some use patterns, reducing the effective boom length to less than 3/4 of the wingspan or rotor length may further reduce drift without reducing swath width.

**Application Height** – Applications should not be made at a height greater than 10 feet above the top of the largest plants unless a greater height is required for aircraft safety. Making applications at the lowest height that is safe reduces exposure of droplets to evaporation and wind.

**Swath Adjustment** – When applications are made with a crosswind, the swath will be displaced downward. Therefore, on the up and downwind edges of the field, the applicator must compensate for this displacement by adjusting the path of the aircraft upwind. Swath adjustment distance should increase, with increasing drift potential (higher winds, smaller drops, etc.).

**Wind** – Drift potential is lowest between speeds of 2 – 10 mph. However, many factors, including droplet size and equipment type determine drift potential at any given speed. Application should be avoided below 2 mph due to variable wind direction and high inversion potential. **NOTE:** Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they affect spray drift.

**Temperature and Humidity** – When making applications in low relative humidity, set up equipment to produce larger droplets to compensate for evaporation. Droplet evaporation is most severe when conditions are both hot and dry.

**Temperature Inversions** – Applications should not occur during a temperature inversion because drift potential is high. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions due to the light variable winds common during inversions. Temperature inversions are characterized by increasing temperatures with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog; however, if fog is not present, inversions can also be identified by the movement of smoke from a ground source of 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.

**Sensitive Areas** – The pesticide should only be applied when the potential for drift to adjacent sensitive areas (e.g. residential areas, bodies of water, known habitat for threatened or endangered species, non-target crops) is minimal (e.g. when wind is blowing away from the sensitive areas).

**GROUND EQUIPMENT:** To aid in reducing spray drift potential when making ground applications near susceptible crops or other desirable broadleaf plants, Sightline should be applied through large droplet producing equipment, such as the Radiarc sprayer or in thickened spray mixtures using an agriculturally registered drift control additive, or high viscosity invert systems. When using a spray thickening or inverting additive, follow all use directions and precautions on the product label. With ground equipment, spray drift can be reduced by keeping the spray boom as low as possible; by applying 20 gallons or more of spray per acre; and by spraying when wind velocity is low. Do not apply with nozzles that produce a fine droplet spray. Keep 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. Select nozzles and pressures which provide adequate plant coverage, but minimize the production of fine spray particles.

**HIGH VOLUME LEAF-STEM TREATMENT:** To minimize spray drift, keep sprays no higher than brush tops and keep spray pressures low enough to provide coarse spray droplets. A spray thickening agent may be used to reduce spray drift.

### GRAZING AND HAYING RESTRICTIONS

- Maximum single application rate is 1 quart (1 lb. ai) per acre on any area that may be grazed or harvested.
- One application allowed per year.
- Do not graze lactating dairy cattle until the next year following application.
- Do not graze or harvest green forage from treated area for 14 days after treatment.
- Withdraw livestock from grazing treated grass or consumption of treated hay at least 3 days before slaughter. This restriction applies to grazing during the season following treatment or hay harvested during the season following treatment.

### PLANTS CONTROLLED BY SIGHTLINE

#### Woody Plants controlled

Alder	Chinquapin	Madrone	Sweetbay
Arrowwood	Choke Cherry	Maples	Magnolia
Ash	Cottonwood	Mulberry	Sweetgum
Aspen	Crataegus	Oaks	Sycamore
Bear Clover (bearmat)	(Hawthorn)	Persimmon	Tanoak
Beech	Dogwood	Pine	Thimbleberry
Birch	Douglas Fir	Poison Ivy	Tree-of-heaven
Blackberry	Elderberry	Poison Oak ( <i>Ailanthus</i> )	
Blackgum	Elm	Poplar	Tulip Poplar
Boxelder+	Gallberry	Salmonberry	Wax myrtle
Brazilian Pepper	Gorse	Salt-bush	Wild Rose
Buckthorn	Hazel	( <i>Braccharis</i> spp.)	Willow
Cascara	Hickory	Salt-cedar+	Winged Elm
Ceanothus	Hornbeam	Sassafras	
Cherry	Kudzu++	Scotch Broom	
	Locust	Sumac	

+ For best control, use either a basal bark or cut stump treatment.

++For complete control, retreatment may be necessary.

#### Annual and Perennial Broadleaf Weeds Controlled

Black Medic	Curly Dock	Matchweed	Sweet Clover
Bull Thistle	Dandelion	Mustard	Vetch
Burdock	Field Bindweed	Oxalis	Wild Carrot (Queen Anne's Lace)
Canada Thistle	Goldenrod	Plantain	Wild Lettuce
Chicory	Ground Ivy	Purple Loosestrife	Wild Violet
Clover	Lambsquarters	Ragweed	Yarrow
Creeping Beggarweed	Lepedezia	Smartweed	

**Table 1 (Maximum Application Rate)**

The following table is a guide for the proper rate of Sightline without exceeding the maximum use rates listed below:

Spray Volume Per Acre	Quarts of Sightline Per 100 Gallons of Spray (Not to exceed allowable maximum use rates)
400	2
300	2.7
200	4
100	8
50	16
20	40
10	80

\*Do not graze or harvest for forage. The maximum use rate for triclopyr is 1 lb ai/A and one application per year for range and pasture sites, including rights-of-way, fence rows, and any other area where grazing or harvesting is allowed. The maximum application rate for triclopyr on forestry sites is 6 lbs ai/A per year, and the maximum application rate on all other use sites is 8 lbs ai/A per year.

### FOREST AND RIGHTS-OF-WAY APPROVED USES

#### FOLIAR APPLICATIONS

Apply 1 to 8 quarts per acre of Sightline to control broadleaf weeds and woody plants. Always use in sufficient water to give thorough coverage of the plants to be controlled.

Mix spray components in the following order:

- 1) Water
- 2) Spray thickening agent (if used)
- 3) Surfactant (if used)
- 4) Additional herbicide (if used)
- 5) Sightline

Mix and apply under moderate and continuous agitation.

Before using any recommended tank mixtures, read the directions and all use precautions on both labels.

Optimal control is achieved when woody plants and weeds are actively growing. On difficult to control species such as ash, blackgum, choke cherry, elm, maples, oaks, pines, or winged elm or when applying late summer when the plants are mature and during drought conditions, use the higher label rates.

When using Sightline in combination with 2, 4-D low volatile ester herbicides, generally the higher rates should be used for satisfactory brush control.

Apply higher rates when target brush is tall (approximately 10-15 feet in height) or when the brush foliage exceeds 60% of the area to be treated. Application of lower rates may cause re-sprouting the following year.

For easy to control brush species or reduced foliage, lower rates may be effective. Consult State or Local Extension personnel for such information.

**Restrictions for Foliar Applications:** Do not graze or harvest for forage and limited to 6 lbs. ai/A per year for forestry applications and 8 lbs. ai/A per year for all other uses.

## FOLIAR TREATMENT WITH GROUND EQUIPMENT

### High Volume Foliar Treatment

To control woody plants, apply 1 to 3 quarts of Sightline per 100 gallons of spray mixture. Sightline may be tank mixed with labeled rates of 2,4-D low volatile ester herbicide, Tordon<sup>\*</sup> 101 herbicide, or Tordon<sup>\*</sup> K herbicide and diluted to make 100 gallons of spray. Apply at a volume of 100 to 400 gallons of total spray per acre depending on foliage density of woody plants. Coverage should be made to thoroughly wet all foliage and root collars but not to create runoff.

### Low Volume Foliar Treatment

To control susceptible woody plants, apply up to 20 quarts of Sightline in 10 to 100 gallons of finished spray. The spray concentration of Sightline and total spray volume per acre should be adjusted depending on the size and foliage density of target woody plants and type of spray equipment used. Regardless of spray volume uniform coverage of target plant foliage (including stems and root collars) is essential for optimal control (see "General use Precautions" and "Restrictions"). When making low volume applications a surfactant is recommended. Delivery rate of spray nozzles to height and density of woody plants is important. When treating tall, dense brush, a spray gun that can deliver up to 2 gallons per minute at 40 – 60 psi may be required. Application equipment with spray tips that deliver less than 1 gallon of spray per minute (Such as backpack sprayers) may only be appropriate for short, low to moderate density brush.

**Tank Mixing:** As a low volume foliar spray, up to 12 quarts of Sightline may be applied in a tank mix combination with labeled rates of Tordon<sup>\*</sup> K or Tordon<sup>\*</sup> 101 Mixture in 10 to 100 gallons of finished spray.

## BROADCAST APPLICATIONS WITH GROUND EQUIPMENT

Make application using equipment that will assure thorough and uniform coverage at spray volumes applied.

### Woody Plant Control

**Foliage Treatment:** Apply 4 to 8 quarts of Sightline in enough water to make 5 or more gallons per acre of total spray, or Sightline at 1-1/2 to 3 quarts may be combined with labeled rates of 2,4-D low volatile ester, Tordon<sup>\*</sup> 101 Mixture, or Tordon<sup>\*</sup> K in sufficient water to make 5 or more gallons per acre of total spray.

### Broadleaf Weed Control

Apply 1 to 4 quarts of Sightline in a total volume of 5 or more gallons per acre as a water spray mixture. Apply at any time weeds are actively growing. Sightline at 1/4 to 3 quarts may be tank mixed with labeled rates of 2,4-D amine or low volatile ester, Tordon<sup>\*</sup> K, or Tordon<sup>\*</sup> 101 Mixture to improve the spectrum of activity. For higher viscosity spray mixtures to minimize drift or runoff potential, Sightline can be mixed with diesel oil or other inverting agent. If an inverting agent is used, read and follow the use directions and precautions on the product label.

## AERIAL APPLICATION (HELICOPTER ONLY)

Apply using suitable drift control (See "General Use Precautions").

### Foliage Treatment (Utility and Pipeline Rights-of-Way)

Apply 1 quart of Sightline alone, or tank mix 1 quart Sightline with labeled rates of 2,4-D low volatile ester, Tordon<sup>\*</sup> 101 Mixture, or Tordon<sup>\*</sup> K and apply in a total spray volume of 10 to 30 gallons per acre. Apply the higher rates and volumes when plants are dense or under drought conditions.

## BASAL BARK AND DORMANT BRUSH TREATMENTS

For control of susceptible woody plants in forests, and in non-crop areas such as industrial manufacturing and storage sites, rights of way such as electrical power lines, communication lines, pipelines, roadsides and railroads, fence rows, non-irrigation ditch banks, and around farm buildings use Sightline in oil or in oil-water mixtures. Acceptable oils are either commercially available basal oil, or other oils or diluents cleared for use on growing crops. Do not use other oils or diluents unless recommended by the oil or diluent's manufacturer. Follow the use directions and precautions on the product label prepared by the oil or diluent's manufacturer.

**Restrictions for Basal Bark and Dormant Brush Treatments:** Do not graze or harvest for forage and limited to 6 lbs. ai/A per year for forestry applications and 8 lbs. ai/A per year for all other uses.

### Oil Mixture Sprays

Add Sightline to the required amount of oil in the spray tank or mixing tank and mix thoroughly. If the mixture stands over 4 hours, re-agitation is required.

**Oil Mixtures of Sightline and Tordon<sup>\*</sup> K:** Tordon<sup>\*</sup> K and Sightline may be used in tank mix combination for basal bark treatment of woody plants. Due to inherent incompatibility of these formulations, a stable mixture can only be achieved when mixed together directly in oil after first combining each product with a compatibility agent. A stable tank mixture for application purposes can be made by following these steps:

- a) Prepare a 1:1 mixture of Tordon<sup>\*</sup> K and propylene glycol (1 part Tordon<sup>\*</sup> K to 1 part propylene glycol). Mix equal volumes of the two materials and agitate until thoroughly mixed. Use of propylene glycol is necessary to prevent an invert emulsion from forming when further mixing occurs.
- b) Prepare a 5:1 mixture of diluent oil and Sightline (5 parts oil to 1 part Sightline). Use commercially available basal oil, or other oil or diluent cleared for use on growing crops. Agitate until thoroughly mixed.
- c) When ready to apply, combine the premixed Tordon<sup>\*</sup> K plus propylene glycol and Sightline plus oil mixtures in the desired ratio. Agitate while mixing and agitate periodically during application to maintain a uniform spray mixture. Combine only enough of the mixtures for immediate use. Do not store the final mixture.

**Note:** The final mixture will separate if left unagitated for any period of time (approximately 15 to 30 minutes) but can be easily remixed. If applied by backpack sprayer, agitation can be accomplished by sloshing or shaking during application. Tordon<sup>\*</sup> K is not registered for use in the states of California and Florida.

### Oil-Water Mixture Sprays

First, premix the Sightline, oil and surfactant in a separate container. Do not allow any water or mixtures containing water to get into the Sightline or the premix. Fill the spray tank about half full with water, then slowly add the premix with continuous agitation and complete filling the tank with water. Continue moderate agitation.

**Note:** If the premix is put in the tank without any water, the first water added may form a thick "invert" (water in oil) emulsion which will be hard to break.

### Basal Bark Treatment

For control of susceptible woody plants with stems less than 6 inches in basal diameter, mix 1 to 5 gallons of Sightline in enough oil to make 100 gallons of spray mixture. Apply with a low pressure (20 – 40 psi) knapsack sprayer or power spraying equipment. Spray the basal parts of brush and tree trunks to a height of 12 to 15 inches from the ground. Thorough wetting of this zone is needed for good control. Spray to the point of runoff. Brush or trees with older or rough bark may require more spray than smooth young bark. Apply at any time of year, including the winter, unless snow or water prevents spraying to the ground line.

### Paint on Application

For control of susceptible woody plants, mix 20 to 25 gallons of Sightline in enough oil to make 100 gallons of mixture. Apply with a brush to area of stem or trunk of unwanted plant nearest to the ground. Cover at 6" to 12" of main stem or trunk up to 1/2 inch in diameter, and 5" more for every additional half inch in diameter. Wet bark thoroughly, but not to the point of runoff. Apply all the way around stem if possible, and treat all suckers and shoots. Do not allow contents to run off or drip onto ground or other plants. If dripping or contact occurs, isolate and remove affected area immediately. Solution may be added to cut stems, but do not allow to drip.

### Low Volume Basal Bark Treatment

For susceptible woody plants with stems less than 6 inches in basal diameter, mix 20 to 30 gallons of Sightline in enough oil to make 100 gallons of spray mixture. Apply with a low pressure backpack or knapsack sprayer and a solid cone or flat fan nozzle. Spray the basal parts of brush tree trunks in a manner which thoroughly wets the lower 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 unless snow or water prevents spraying to the ground line or when stem surfaces are saturated with water.

**Sightline Plus Tordon\* K in Oil Tank Mix:** Sightline and Tordon\* K may be applied as a low volume basal bark treatment to improve control of certain woody species such as ash, elm, maple, poplar, aspen, hickory, oak, oceanspray, birch, hickory, pine, tanoak, cherry, locust, sassafras, and multiflora rose.

#### **Streamline Basal Bark Treatment (Southern States)**

For control of suppression of susceptible woody plants for conifer release, mix 20 to 30 gallons of Sightline in enough oil to make 100 gallons of spray mixture. Apply as a directed spray with a backpack or knapsack sprayer. 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 spray at bark that is approximately 1 to 2 feet 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 a point approximately 4 feet above ground. Vary spray mixture concentration with size and susceptibility of the species being treated. Optimum results are obtained when applications are made to young growing stems which have not developed the thicker bark of slower growing trees in older stands. This technique is not recommended for scrub and live oak species, including blackjack, turkey, post, live, bluejack, and laurel oaks, or bigleaf maple. 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 if snow or water prevents spraying at the desired height above ground level.

#### **Low Volume Stem Bark Band Treatment (North Central and Lake States)**

To control susceptible woody plants with stems less than 6 inches in basal diameter, mix 20 to 30 gallons of Sightline in enough oil to make 100 gallons of spray mixture. Apply with a backpack or knapsack sprayer using low pressure and solid cone or flat fan nozzle. Apply the spray in a 6 to 10 inch wide band that completely encircles the stem. Spray in a manner that completely wets the bark, but not to the point of runoff. The treatment band may be positioned at any height up to the first major branch. For best results apply the band as low as possible. Spray mixture concentration should vary with size and susceptibility of species to be treated. Applications may be made at any time, including winter months.

#### **Thinline Basal Bark Treatment**

To control susceptible woody plants with stems less than 6 inches in diameter, apply Sightline either undiluted or mixed at 50-75% v/v with oil in a thin stream to all sides of the lower stems. The stream should be directed horizontally to apply a narrow band around each stem or clump. Use a minimum of 2 to 15 milliliters of Sightline or oil mixture with Sightline to treat single stems and from 25 to 100 milliliters to treat clumps of stems. Use an applicator metered or calibrated to deliver the small amounts required.

#### **Dormant Stem Treatment**

Dormant stem treatments will control susceptible woody plants and vines with stems less than 2 inches in diameter. Plants with stems greater than 2 inches in diameter may not be controlled and resprouting may occur. This treatment method is best suited for sites with dense, small diameter brush. Dormant stem treatments of Sightline can also be used as a chemical side-trim for controlling lateral branches of larger trees that encroach onto roadside, utility or other rights-of-way.

Mix 4 to 8 quarts of Sightline in 2 to 3 gallons of crop oil concentrate or other recommended oil and add this mixture to enough water to make 100 gallons of spray solution. Use continuous adequate agitation. Apply with Radiarc, OC or equivalent nozzles, or handgun using 70 to 100 gallons of spray per acre to achieve thorough coverage of stems. Sightline may be mixed with 4 quarts of Weedone 170 herbicide to improve the control of black cherry and broaden the spectrum of herbicidal activity. In western states, apply anytime after woody plants are dormant. In other areas apply anytime within 10 weeks of bud break, generally February through April. Do not apply to wet or saturated bark as poor control may result.

#### **Cut Stump Treatment**

To prevent resprouting of cut stumps of susceptible species, mix 20 to 30 gallons of Sightline in enough oil to make 100 gallons of spray mixture. Apply with a low pressure backpack or knapsack sprayer using a solid cone or flat fan nozzle. Spray the root collar area, sides of the stump, and the outer portion of the cut surface including the cambium until thoroughly wet, but not to the point of runoff. Spray mixture concentration should be modified to allow for differences in size and susceptibility of species treated. Apply at any time, including in winter, unless snow or water prevent spraying to the ground line.

#### **Treatment of Cut Stumps in Western States**

To control resprouting of salt-cedar and other Tamarix species, bigleaf maple, tanoak, Oregon myrtle, and other susceptible species, apply undiluted Sightline to wet the cambium and adjacent wood around the entire circumference of the cut stump. Treatment may be applied throughout the year; however, control may be reduced with treatment during periods of moisture stress as in late summer. Use an applicator which can be calibrated to deliver the small amounts of material required.

**Note:** All basal bark and dormant brush treatment methods may be used to treat susceptible woody species on range and permanent pasture land provided that no more than 1.5 quarts of Sightline are applied per acre. Large plants or species requiring higher rates of Sightline may not be completely controlled.

### **LANDSCAPE AND WOODED AREAS**

#### **FOLIAR APPLICATIONS**

Apply 0.75 to 4.4 oz per 1000 ft<sup>2</sup> of Sightline to control woody plants. Always use in sufficient water to give thorough coverage of the plants to be controlled.

Mix spray components in the following order:

- 1) Water
- 2) Spray thickening agent (if used)
- 3) Surfactant (if used)
- 4) Additional herbicide (if used)
- 5) Sightline

Mix and apply under moderate and continuous agitation.

Before using any recommended tank mixtures, read the directions and all use precautions on both labels.

Optimal control is achieved when woody plants and weeds are actively growing. On difficult to control species such as ash, blackgum, choke cherry, elm, maples, oaks, pines, or winged elm or when applying late summer when the plants are mature and during drought conditions, use the higher label rates.

When using Sightline in combination with 2, 4-D low volatile ester herbicides, generally the higher rates should be used for satisfactory brush control.

Apply higher rates when target brush is tall (approximately 10-15 feet in height) or when the brush foliage exceeds 60% of the area to be treated. Application of lower rates may cause re-sprouting the following year.

For easy to control brush species or reduced foliage, lower rates may be effective. Consult State or Local Extension personnel for such information.

#### **Restrictions for Foliar Applications:**

- Do not graze or harvest for forage
- Do not apply more than 6 lbs. ai/A per year for forestry applications and 8 lbs. ai/A per year for all other uses.
- Not for use on residential lawns or turfgrass
- For use only by licensed applicators

#### **FOLIAR TREATMENT WITH GROUND EQUIPMENT**

##### **High Volume Foliar Treatment**

To control woody plants, apply 8 to 24 oz of Sightline per 25 gallons of spray mixture. Sightline may be tank mixed with labeled rates of 2,4-D low volatile ester herbicide, Tordon\* 101 herbicide, or Tordon\* K herbicide and diluted to make 25 gallons of spray. Apply at a volume of 2.3 to 9 gallons of total spray per 1000 ft<sup>2</sup> depending on foliage density of woody plants. Coverage should be made to thoroughly wet all foliage and root collars but not to create runoff.

### **Low Volume Foliar Treatment**

To control susceptible woody plants, apply up to 1 quart of Sightline in 1/2 to 5 gallons of finished spray. The spray concentration of Sightline and total spray volume per 1000 ft<sup>2</sup> should be adjusted depending on the size and foliage density of target woody plants and type of spray equipment used. Regardless of spray volume uniform coverage of target plant foliage (including stems and root collars) is essential for optimal control (see "General use Precautions" and "Restrictions"). When making low volume applications a surfactant is recommended. Delivery rate of spray nozzles to height and density of woody plants is important. When treating tall, dense brush, a spray gun that can deliver up to 2 gallons per minute at 40 – 60 psi may be required. Application equipment with spray tips that deliver less than 1 gallon of spray per minute (Such as backpack sprayers) may only be appropriate for short, low to moderate density brush.

**Tank Mixing:** As a low volume foliar spray, up to 3 quarts of Sightline may be applied in a tank mix combination with labeled rates of Tordon\* K or Tordon\* 101 Mixture in 2.5 to 2 gallons of finished spray.

### **BROADCAST APPLICATIONS WITH GROUND EQUIPMENT**

Make application using equipment that will assure thorough and uniform coverage at spray volumes applied.

#### **Woody Plant Control**

**Foliage Treatment:** Apply 4 to 8 quarts of Sightline in enough water to make 5 or more gallons per acre of total spray, or Sightline at 1-1/2 to 3 quarts may be combined with labeled rates of 2,4-D low volatile ester, Tordon\* 101 Mixture, or Tordon\* K in sufficient water to make 5 or more gallons per acre of total spray.

### **BASAL BARK AND DORMANT BRUSH TREATMENTS**

For the control of invasive and unwanted woody plants and vines growing in landscape plantings and wooded areas of commercial and residential landscapes, parks, golf courses, airport grounds, and cemeteries use Sightline in oil or in oil-water mixtures. Acceptable oils are either commercially available basal oil, or other oils or diluents cleared for use on growing crops. Do not use other oils or diluents unless recommended by the oil or diluent's manufacturer. Follow the use directions and precautions on the product label prepared by the oil or diluent's manufacturer.

#### **Restrictions for Basal Bark and Dormant Brush Treatments:**

- Do not graze or harvest for forage and limited to 6 lbs. ai/A per year for forestry applications and 8 lbs. ai/A per year for all other uses.
- Not for use on residential lawns or turfgrass
- For use only by licensed applicators

#### **Oil Mixture Sprays**

Add Sightline to the required amount of oil in the spray tank or mixing tank and mix thoroughly. If the mixture stands over 4 hours, re-agitation is required.

**Oil Mixtures of Sightline and Tordon\* K:** Tordon\* K and Sightline may be used in tank mix combination for basal bark treatment of woody plants. Due to inherent incompatibility of these formulations, a stable mixture can only be achieved when mixed together directly in oil after first combining each product with a compatibility agent. A stable tank mixture for application purposes can be made by following these steps:

- a) Prepare a 1:1 mixture of Tordon\* K and propylene glycol (1 part Tordon\* K to 1 part propylene glycol). Mix equal volumes of the two materials and agitate until thoroughly mixed. Use of propylene glycol is necessary to prevent an invert emulsion from forming when further mixing occurs.
- b) Prepare a 5:1 mixture of diluent oil and Sightline (5 parts oil to 1 part Sightline). Use a commercially available basal oil, or other oil or diluent cleared for use on growing crops. Agitate until thoroughly mixed.
- c) When ready to apply, combine the premixed Tordon\* K plus propylene glycol and Sightline plus oil mixtures in the desired ratio. Agitate while mixing and agitate periodically during application to maintain a uniform spray mixture. Combine only enough of the mixtures for immediate use. Do not store the final mixture.

**Note:** The final mixture will separate if left unagitated for any period of time (approximately 15 to 30 minutes) but can be easily remixed. If applied by backpack sprayer, agitation can be accomplished by sloshing or shaking during application. Tordon\* K is not registered for use in the states of California and Florida.

#### **Oil-Water Mixture Sprays**

First, premix the Sightline, oil and surfactant in a separate container. Do not allow any water or mixtures containing water to get into the Sightline or the premix. Fill the spray tank about half full with water, then slowly add the premix with continuous agitation and complete filling the tank with water. Continue moderate agitation.

**Note:** If the premix is put in the tank without any water, the first water added may form a thick "invert" (water in oil) emulsion which will be hard to break.

#### **Basal Bark Treatment**

For control of susceptible woody plants with stems less than 6 inches in basal diameter, mix 1 to 5 quarts of Sightline in enough oil to make 25 gallons of spray mixture. Apply with a low pressure (20 – 40 psi) knapsack sprayer or power spraying equipment. Spray the basal parts of brush and tree trunks to a height of 12 to 15 inches from the ground. Thorough wetting of this zone is needed for good control. Spray to the point of runoff. Brush or trees with older or rough bark may require more spray than smooth young bark. Apply at any time of year, including the winter, unless snow or water prevents spraying to the ground line.

#### **Paint on Application**

For control of susceptible woody plants, mix 4 to 5 gallons of Sightline in enough oil to make 25 gallons of mixture. Apply with a brush to area of stem or trunk of unwanted plant nearest to the ground. Cover at 6" to 12" of main stem or trunk up to 1/2 inch in diameter, and 5" more for every additional half inch in diameter. Wet bark thoroughly, but not to the point of runoff. Apply all the way around stem if possible, and treat all suckers and shoots. Do not allow contents to run off or drip onto ground or other plants. If dripping or contact occurs, isolate and remove affected area immediately. Solution may be added to cut stems, but do not allow to drip.

#### **Low Volume Basal Bark Treatment**

For susceptible woody plants with stems less than 6 inches in basal diameter, mix 2 to 3 gallons of Sightline in enough oil to make 10 gallons of spray mixture. Apply with a low pressure backpack or knapsack sprayer and a solid cone or flat fan nozzle. Spray the basal parts of brush tree trunks in a manner which thoroughly wets the lower 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 unless snow or water prevents spraying to the ground line or when stem surfaces are saturated with water.

**Sightline Plus Tordon\* K in Oil Tank Mix:** Sightline and Tordon\* K may be applied as a low volume basal bark treatment to improve control of certain woody species such as ash, elm, maple, poplar, aspen, hackberry, oak, oceanspray, birch, hickory, pine, tanoak, cherry, locust, sassafras, and multiflora rose.

#### **Streamline Basal Bark Treatment (Southern States)**

For control of suppression of susceptible woody plants for conifer release, mix 2 to 3 gallons of Sightline in enough oil to make 10 gallons of spray mixture. Apply as a directed spray with a backpack or knapsack sprayer. 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 spray at bark that is approximately 1 to 2 feet 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 a point approximately 4 feet above ground. Vary spray mixture concentration with size and susceptibility of the species being treated. Optimum results are obtained when applications are made to young growing stems which have not developed the thicker bark of slower growing trees in older stands. This technique is not recommended for scrub and live oak species, including blackjack, turkey, post, live, bluejack, and laurel oaks, or bigleaf maple. 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 if snow or water prevents spraying at the desired height above ground level.

### **Low Volume Stem Bark Band Treatment (North Central and Lake States)**

To control susceptible woody plants with stems less than 6 inches in basal diameter, mix 2 to 3 gallons of Sightline in enough oil to make 10 gallons of spray mixture. Apply with a backpack or knapsack sprayer using low pressure and solid cone or flat fan nozzle. Apply the spray in a 6 to 10 inch wide band that completely encircles the stem. Spray in a manner that completely wets the bark, but not to the point of runoff. The treatment band may be positioned at any height up to the first major branch. For best results apply the band as low as possible. Spray mixture concentration should vary with size and susceptibility of species to be treated. Applications may be made at any time, including winter months.

### **Thinline Basal Bark Treatment**

To control susceptible woody plants with stems less than 6 inches in diameter, apply Sightline either undiluted or mixed at 50-75% v/v with oil in a thin stream to all sides of the lower stems. The stream should be directed horizontally to apply a narrow band around each stem or clump. Use a minimum of 2 to 15 milliliters of Sightline or oil mixture with Sightline to treat single stems and from 25 to 100 milliliters to treat clumps of stems. Use an applicator metered or calibrated to deliver the small amounts required.

### **Dormant Stem Treatment**

Dormant stem treatments will control susceptible woody plants and vines with stems less than 2 inches in diameter. Plants with stems greater than 2 inches in diameter may not be controlled and resprouting may occur. This treatment method is best suited for sites with dense, small diameter brush. Dormant stem treatments of Sightline can also be used as a chemical side-trim for controlling lateral branches of larger trees that encroach onto roadside, utility or other rights-of-way.

Mix 1 to 2 quarts of Sightline in 2 to 3 quarts of crop oil concentrate or other recommended oil and add this mixture to enough water to make 25 gallons of spray solution. Use continuous adequate agitation. Apply at a rate of 1.6 to 2.3 gallons of spray per 1000 ft<sup>2</sup> to achieve thorough coverage of stems. Sightline may be mixed with 4 quarts of Weedone 170 herbicide to improve the control of black cherry and broaden the spectrum of herbicidal activity. In western states, apply anytime after woody plants are dormant. In other areas apply anytime within 10 weeks of bud break, generally February through April. Do not apply to wet or saturated bark as poor control may result.

### **Cut Stump Treatment**

To prevent resprouting of cut stumps of susceptible species, mix 2 to 3 gallons of Sightline in enough oil to make 10 gallons of spray mixture. Apply with a low pressure backpack or knapsack sprayer using a solid cone or flat fan nozzle. Spray the root collar area, sides of the stump, and the outer portion of the cut surface including the cambium until thoroughly wet, but not to the point of runoff. Spray mixture concentration should be modified to allow for differences in size and susceptibility of species treated. Apply at any time, including in winter, unless snow or water prevent spraying to the ground line.

### **Treatment of Cut Stumps in Western States**

To control resprouting of salt-cedar and other Tamarix species, bigleaf maple, tanoak, Oregon myrtle, and other susceptible species, apply undiluted Sightline to wet the cambium and adjacent wood around the entire circumference of the cut stump. Treatment may be applied throughout the year; however, control may be reduced with treatment during periods of moisture stress as in late summer. Use an applicator which can be calibrated to deliver the small amounts of material required.

**Note:** All basal bark and dormant brush treatment methods may be used to treat susceptible woody species on range and permanent pasture land provided that no more than 1.5 quarts of Sightline are applied per acre. Large plants or species requiring higher rates of Sightline may not be completely controlled.

## **FOREST MANAGEMENT APPLICATIONS**

Optimal control for broadcast applications of Sightline is achieved using spray volumes that allow thorough plant coverage. Recommended spray volumes are usually 25 gallons per acre by air or 10 to 100 gallons per acre by ground depending upon equipment. When using spray volumes less than 50 gallons per acre, the addition of an agriculturally labeled non-ionic surfactant as described under "Directions for Use" will help assure more complete coverage of foliage. Application systems or

additives designed to minimize drift by producing larger droplets may require higher spray volumes to maintain brush control.

**Restrictions for Forest Management Applications:** Do not graze or harvest for forage and limited to 6 lbs. ai/A per year for forestry applications and 8 lbs. ai/A per year for all other uses.

**Plant Back Interval for Conifers:** Conifers planted less than 1 month after treatment with Sightline at less than 4 quarts per acre or less than 2 months after treatment at 4 to 8 quarts per acre may suffer injury. When tank mixtures of herbicides are used for forest site preparation, labels for all products in the mixture should be consulted and the longest recommended waiting period observed.

### **Broadcast Treatments for Forest Site Preparation (Not For Conifer Release)**

#### **Southern States Including Alabama, Arkansas, Delaware, Florida, Georgia, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, and Virginia:**

To control susceptible woody plants and broadleaf weeds, apply Sightline at a rate of 4 to 6 quarts per acre. To broaden the spectrum of woody plants and broadleaf weeds controlled, apply 2 to 4 quarts per acre of Sightline in tank mix combination with labeled rates of Tordon® 101 Mixture or Tordon® K. Tordon® 101 Mixture and Tordon® K are not registered for use in the states of California and Florida. Where grass control is also desired, Sightline, alone or in combination with Tordon® K or Tordon® 101 Mixture, may be tank mixed with labeled rates of other herbicides registered for grass control in forests. Use of tank mix products must be in accordance with the most restrictive of label limitations and precautions. No label application rates should be exceeded.

Do not tank mix with any product containing a label prohibition against such mixing.

#### **In Western, Northeastern, North Central, and Lake States (States Not Listed Above As Southern States):**

To control susceptible woody plants and broadleaf weeds, apply Sightline at a rate of 3 to 6 quarts per acre. To broaden the spectrum of woody plants and broadleaf weeds controlled, apply 1.5 to 3 quarts per acre of Sightline in a tank mix combination with labeled rates of Tordon® 101 Mixture, Tordon® K, or 2,4-D low volatile ester. Tordon® 101 Mixture and Tordon® K are not registered for use in the states of California and Florida. Where grass control is also desired, Sightline, alone or in tank mix combination with Tordon® 101 Mixture or Tordon® K, may be applied with labeled rates of other herbicides registered for grass control in forests. When applying tank mixes, follow applicable use directions and precautions on each product label.

#### **Applications for Site Preparation in Southern Coastal Flatwoods:**

To control susceptible broadleaf weeds and woody species such as gallberry and wax-myrtle, and for partial control of saw-palmetto, apply 2 to 4 quarts per acre of Sightline. To broaden the spectrum of species controlled to include fetterbush, staggerbush, titi, and grasses, apply 2 to 3 quarts per acre of Sightline in tank mix combination with labeled rates of Arsenal Applicator's Concentrate herbicide. Where control of gallberry, wax-myrtle, broadleaf weeds, and grass is desired, 2 to 3 quarts of Sightline may be applied in tank mix combination with labeled rates of Accord herbicide.

These treatments may be broadcast during site preparation of flat planted or bedded sites or, on bedded sites, applied in bands over the top of beds. For best results, make applications in late summer or fall. Efficacy may not be satisfactory when applications are made in early season prior to August. **Note:** Do not apply after planting pines.

#### **Applications for Conifer Release**

**Note:** Application for conifer release may cause temporary damage and growth suppression where contact with conifers occurs; however, injured conifers should recover and grow normally. Over-the-top spray applications kill pines.

### **Directed Sprays**

To release conifers from competing hardwoods and brush such as red maple, sugar maple, striped maple, sweetgum, red and white oaks, ash, hickory, alder, birch, aspen, pin cherry, *Ceanothus* spp., blackberry, chinquapin, and poison oak, mix 4 to 20 quarts of Sightline in enough water to make 100 gallons of spray mixture. This spray should be directed onto foliage of competitive hardwoods using knapsack or backpack sprayers with flat fan nozzles or equivalent any time after the hardwoods and brush have reached full leaf size, but before autumn coloration. The majority of treated hardwoods and brush should be less than 6 feet in height to ensure adequate spray coverage. Care should be taken to direct spray solutions away from conifer foliage, particularly foliage of desirable pines. Refer to "Table 1" to determine proper mixing rate, spray volume and maximum application rate.

### **Broadcast Applications for Mid-Rotation Understory Brush Control in Southern Coastal Flatwoods Pine Stands (Ground Equipment Only)**

To control susceptible species such as gallberry and wax-myrtle and broadleaf weeds, apply 2 to 4 quarts per acre of Sightline. To include control of fetterbush, staggerbush, and titi, apply 2 to 3 quarts per acre of Sightline in tank mix combination with labeled rates of Arsenal Applicator's Concentrate. Saw-palmetto will be partially controlled by use of Sightline at 4 quarts per acre or by mixtures Sightline at 2 to 3 quarts per acre in tank mix combination with either Arsenal Applicator's Concentrate or Escort herbicide.

These mixtures should be broadcast applied over target understory brush species. To prevent injury to pines, direct applications below the pine foliage. Sprays should be applied in 30 or more gallons per acre of total volume. For optimum results, make applications in late summer or fall. Reduced control may occur when applications are made in early season prior to August.

### **Broadcast Applications for Conifer Release in the Pacific Northwest and California**

**On Dormant Conifers Before Bud Swell (Excluding Pines):** To control or suppress deciduous hardwoods such as vine maple, bigleaf maple, alder, scotch broom, or willow before leaf-out or evergreen hardwoods such as madrone, chinquapin, and *Ceanothus* spp., use Sightline at 1 to 2 quarts per acre. Diluents used may be diesel or fuel oil. Alternately, water plus 1 to 2 gallons per acre of diesel oil or a suitable surfactant or oil substitute at manufacturer's recommended rates may be used.

### **On Conifer Plantations (Excluding Pines) After Hardwoods Begin Growth and Before Conifer Bud Break ("Early Foliar" hardwood stage):**

Use Sightline at 1.0 to 1.5 quarts alone or plus 2,4-D low volatile ester in water carrier to provide no more than 3 pounds acid equivalent per acre from both products. After bud break, these sprays may cause more serious injury to the crop trees. Use of a surfactant may cause unacceptable injury to conifers especially after bud break.

### **On Conifer Plantations (Excluding Pines) After Conifers Harden Off in Late Summer and While Hardwoods Are Still Growing Actively:**

Use Sightline at rates of 1.0 to 1.5 quarts per acre alone or plus 2,4-D low volatile ester to provide no more than 3 pounds acid equivalent per acre from both products. Treat as soon after conifer bud hardening as possible so that hardwoods and brush are actively growing. Use of oil, oil substitute, or surfactant may cause unacceptable injury to conifers.

### **Broadcast Applications for Conifer Release in the Eastern United States**

To release spruce, fir, red pine, and white pine from competing hardwoods such as red maple, sugar maple, alder, birch (white, yellow, and grey), aspen, ash, pin cherry, and *Rubus* spp. and perennial and annual broadleaf weeds, use Sightline at rates of 1.5 to 3.0 quarts per acre alone or plus 2,4-D amine or low volatile ester to provide no more than 4 pounds acid equivalent per acre from both products. Applications should be made in late summer or early fall after conifers have formed their overwintering buds and hardwoods are in full leaf and prior to autumn coloration.

### **Broadcast Applications for Conifer Release in the Lake State Region**

To release spruce, fir, and red pine from competing hardwoods such as aspen, birch, maple, cherry, willow, oak, hazel and *Rubus* spp. and perennial and annual broadleaf weeds, use Sightline at rates of 1.5 to 3.0 quarts per acre. Applications should be made in late summer or early fall after conifers have formed their overwintering buds and hardwoods are in full leaf and prior to autumn coloration.

## **CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY**

**Notice:** Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before buying or using this product. If the terms are not acceptable, return the product at once, unopened, and the purchase price will be refunded.

The Directions for Use of this product should be followed carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Tree injury, ineffectiveness or other unintended consequences may result because of such factors as manner of use or application, weather or tree conditions, presence of other materials or other influencing factors in the use of the product, which are beyond the control of RAINBOW ECOSCIENCE or seller. To the extent consistent with applicable law, all such risks shall be assumed by Buyer and User, and Buyer and User agree to hold RAINBOW ECOSCIENCE and seller harmless for any claims relating to such factors.

RAINBOW ECOSCIENCE warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use, subject to the inherent risks referred to above, when used in accordance with directions under normal use conditions. This warranty does not extend to the use of the product contrary to label instructions, or under abnormal conditions or under conditions not reasonably foreseeable to or beyond the control of Seller or RAINBOW ECOSCIENCE, and Buyer and User assume the risk of any such use. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, RAINBOW TREECARE MAKES NO WARRANTIES OR MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS STATED ABOVE.

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