

241-296

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF
PREVENTION, PESTICIDES AND
TOXIC SUBSTANCES

MAR 9 2009

Jeffrey H. Birk, Ph.D.
Regulatory Manager
BASF
26 Davis Drive
Research Triangle Park, NC 27709-3528

SUBJECT: Application for Pesticide Notification – Deletion of Several Tank Mix Recommendations,
Addition of Several Conifer Species and One Weed Controlled; Final Printed Label
Chopper® herbicide
EPA Reg. No. 241-296
Application Dated August 18, 2008

Dear Dr. Birk:

The Agency is in receipt of your Application for Pesticide Notification under Pesticide Registration Notice (PRN) 98-10 for the above product. The Registration Division (RD) has conducted a review of this request for its applicability under PRN 98-10 and finds that the actions requested fall within the scope of PRN 98-10. The label submitted with the application has been date-stamped "Notification" and will be placed in our records.

PLEASE NOTE: Final printed labels for the above product must be submitted as an amendment to Jim Tompkins, Product Manager (PM) 25 in the Herbicide Branch of RD, not as a Notification.

If you have any questions, please call me directly at 703-305-6249 or Terri Stowe of my staff at 703-305-6117.

Sincerely,

A handwritten signature in black ink, appearing to be "Linda Arrington".

Linda Arrington
Notifications & Minor Formulations Team Leader
Registration Division (7505P)
Office of Pesticide Programs

| | | | |
|--|---|--|-----------------------|
|  EPA | United States Environmental Protection Agency Washington, DC 20460 | <input type="checkbox"/> Registration <input type="checkbox"/> Amendment <input checked="" type="checkbox"/> Other | OPP Identifier Number |
|--|---|--|-----------------------|

Application for Pesticide - Section I

| | | |
|---|---|--|
| 1. Company/Product Number 241-296 | 2. EPA Product Manager James Tompkins | 3. Proposed Classification <input type="checkbox"/> None <input type="checkbox"/> Restricted |
| 4. Company/Product (Name) Chopper herbicide | PM# 25 | |
| 5. Name and Address of Applicant (Include ZIP Code) BASF 26 Davis Drive Research Triangle Park, NC 27709 <input type="checkbox"/> Check if this is a new address | | 6. Expedited Review. In accordance with FIFRA Section 3(c)(3) (b)(i), my product is similar or identical in composition and labeling to: <div style="text-align: right; font-weight: bold; font-size: 1.2em;">NOTIFICATION</div> EPA Reg. No. _____ MAR 9 2009 Product Name _____ |

Section - II

| | |
|--|---|
| <input type="checkbox"/> Amendment - Explain below. | <input checked="" type="checkbox"/> Final printed labels in response to Agency letter dated _____ |
| <input type="checkbox"/> Resubmission in response to Agency letter dated _____ | <input type="checkbox"/> "Me Too" Application. |
| <input checked="" type="checkbox"/> Notification - Explain below. | <input type="checkbox"/> Other - Explain below. |

Explanation: Use additional page(s) if necessary. (For section I and Section II.)

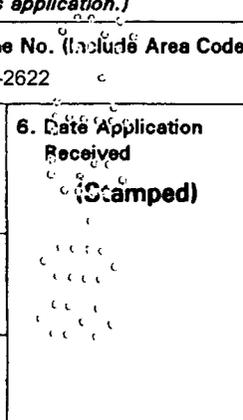
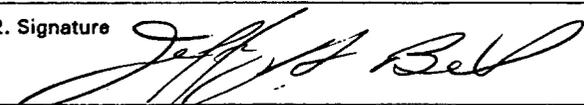
Notification of minor label changes and final print labeling for Chopper herbicide (241-296). This notification is consistent with the provisions of PR Notice 98-10 and EPA regulations at 40 CFR 152.46, and no other changes have been made to the labeling or the confidential statement of formula of this product. I understand that it is a violation of 18 U.S.C. Sec. 1001 to willfully make any false statement to EPA. I further understand that if this notification is not consistent with the terms of PR Notice 98-10 and 40 CFR 152.46, this product may be in violation of FIFRA and I may be subject to enforcement action and penalties under sections 12 and 14 of FIFRA.

This notification is not subject to a fee under PRIA. Contact Jeff Birk at 919-547-2622 (phone), 919-547-2850 (fax) or by Email at jeffrey.birk@basf.com

Section - III

| | | | | | |
|---|--|---|---|--|--|
| 1. Material This Product Will Be Packaged In: | | | | 2. Type of Container | |
| Child-Resistant Packaging <input type="checkbox"/> Yes <input type="checkbox"/> No | Unit Packaging <input type="checkbox"/> Yes <input type="checkbox"/> No | Water Soluble Packaging <input type="checkbox"/> Yes <input type="checkbox"/> No | | | |
| * Certification must be submitted If "Yes" Unit Packaging wgt. No. per container | | If "Yes" Package wgt No. per container | | <input type="checkbox"/> Metal <input type="checkbox"/> Plastic <input type="checkbox"/> Glass <input type="checkbox"/> Paper <input type="checkbox"/> Other (Specify) _____ | |
| 3. Location of Net Contents Information | | 4. Size(s) Retail Container | | 5. Location of Label Directions | |
| <input type="checkbox"/> Label <input type="checkbox"/> Container | | | | <input type="checkbox"/> _____ | |
| 6. Manner in Which Label is Affixed to Product | | | <input type="checkbox"/> Lithograph <input type="checkbox"/> Paper glued <input type="checkbox"/> Stenciled | | |
| | | | <input type="checkbox"/> Other _____ | | |

Section - IV

| | | |
|---|------------------------------------|--|
| 1. Contact Point (Complete items directly below for identification of individual to be contacted, if necessary, to process this application.) | | |
| Name Jeffrey H. Birk | Title Regulatory Manager | Telephone No. (Include Area Code) 919-547-2622 |
| Certification I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment both under applicable law. | | 6. Date Application Received (Stamped)  |
| 2. Signature  | | |
| 3. Title Regulatory Manager | | |
| 4. Typed Name Jeffrey H. Birk | 5. Date August 18, 2008 | |



The Chemical Company

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August 18, 2008

U.S. Environmental Protection Agency
Office of Pesticide Programs (7505P)
Document Processing Desk 7504P (NOTIF)
Room S-4900
One Potomac Yard
2777 S. Crystal Drive
Arlington, VA 22202
Attention: Mr. James Tompkins, (PM 25)

**RE: Notification, minor label changes and final print label:
Chopper herbicide; EPA Reg. No. 241-296**

Dear Mr. Tompkins:

BASF is hereby submitting a notification for minor label changes (deletion of several tank mix recommendations, addition of several conifer species and one weed controlled) and final print labeling for Chopper herbicide (EPA Reg. No. 241-296). No other substantive changes have been made to the labeling.

Enclosed please find:

- Application form 8570-1
- CD containing electronic copy of the label
- Certification with Respect to Label Integrity
- CD containing electronic copy of the final print label
- Certification with Respect to Label Integrity
- Chopper herbicide label
- Current Chopper herbicide label

No PRIA fee is required for this notification.

Thank you for your assistance with this matter. If you should have any questions, please feel free to call me at (919) 547-2622.

Regards,

Jeffrey H. Birk, Ph.D.
Regulatory Manager
Phone 919-547-2622
Mobile : 919-225-9220
Fax: 919-547-2850
Email: jeffrey.birk@basf.com

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Certification with Respect to Label Integrity

version: 9/11/02

I certify that the information (including, but not limited to, text, tables, and graphics) contained in the electronic file identified below by file name and submitted with this certification is the same information as that on the paper copies of these documents included with this submission.

| PROPOSED LABEL | | |
|--------------------|-----------------------|---|
| EPA Registration # | Date Submitted to EPA | Electronic file name |
| 241-296 | 8-18-08 | 000241-00296.20080818.NVA 2008-04-109-0240 |

I certify that the statements that I have made on this form are true, accurate, and complete. I acknowledge that any knowingly false or misleading statements may be punishable by fine or imprisonment or both under applicable law.



Signature

08/18/2008
Date

Jeffrey H. Birk
Name (typed)

Regulatory Manager
Title

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CHOPPER®

herbicide

NOTIFICATION

MAR 9 2009

For control of vegetation on forestry sites

Active Ingredient:

Isopropylamine salt of Imazapyr (2-[4,5-dihydro-4-methyl-4-(1-methylethyl)-5-oxo-1H-imidazol-2-yl]-3-pyridinecarboxylic acid)* 27.6%

Other Ingredients: 72.4%

Total: 100.0%

*Equivalent to 22.6% (2-[4,5-dihydro-4-methyl-4-(1-methylethyl)-5-oxo-1H-imidazol-2-yl]-3-pyridinecarboxylic acid) or 2 pounds acid per gallon.

EPA Reg. No. 241-296
U.S. Patent No. 4,798,619

EPA Est. No.

KEEP OUT OF REACH OF CHILDREN CAUTION/PRECAUCIÓN

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

See inside booklet for complete **First Aid, Precautionary Statements, Directions For Use and Conditions of Sale and Warranty.**

In case of an emergency endangering life or property involving this product, call day or night 1-800-832-HELP (4357).

Net Contents:

BASF Corporation
26 Davis Drive
Research Triangle Park, NC 27709

 **BASF**
The Chemical Company

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| FIRST AID | |
|---|--|
| If on skin or clothing: | <ul style="list-style-type: none"> • Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15 to 20 minutes. • Call a poison control center or doctor for treatment advice. |
| If in eyes: | <ul style="list-style-type: none"> • Hold eye open and rinse slowly and gently with water for 15 to 20 minutes. • Remove contact lenses, if present, after first 5 minutes, then continue rinsing eye. • Call a poison control center or doctor for treatment advice. |
| If inhaled: | <ul style="list-style-type: none"> • Move person to fresh air. • If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible. • Call a poison control center or doctor for further treatment advice. |
| HOT LINE NUMBER | |
| Have the product container or label with you when calling a poison control center or doctor or going for treatment. You may also contact BASF Corporation for emergency medical treatment information: 1-800-832-HELP (4357). | |

**PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS
CAUTION!**

Harmful if inhaled or absorbed through skin. Avoid breathing spray mist. Avoid contact with skin, eyes or clothing. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

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 **A** on an EPA chemical-resistance category selection chart.

Applicators and other handlers must wear:

- long-sleeved shirt and long pants
- chemical-resistant gloves, such as barrier laminate, butyl rubber or polyethylene.
- shoes plus socks

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

| USER SAFETY RECOMMENDATIONS |
|--|
| <p>Users should:</p> <ol style="list-style-type: none"> 1. Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet. 2. Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. 3. 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. |

PHYSICAL AND CHEMICAL HAZARDS

Spray solutions of **CHOPPER® herbicide** should be mixed, stored, and applied only in stainless steel, fiberglass, plastic, and plastic-lined steel containers.

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

ENVIRONMENTAL HAZARDS

DO NOT apply directly to water, or 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 washwaters or rinsate. This herbicide is phytotoxic at extremely low concentrations. Non-target plants may be adversely affected from drift.

DIRECTIONS FOR USE

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

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

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

| AGRICULTURAL USE REQUIREMENTS |
|--|
| <p>Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard. The requirements in this box apply to use on trees being grown for sale or other commercial use, or for commercial seed production, or for production of timber or wood products, or for research purposes.</p> <p>DO NOT enter or allow worker entry into treated areas during the restricted entry interval (REI) 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:</p> <ul style="list-style-type: none"> • coveralls • chemical-resistant gloves, such as barrier laminate, butyl rubber or polyethylene. • shoes plus socks |

NON-AGRICULTURAL USE REQUIREMENTS

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

Noncrop weed control is not within the scope of the Worker Protection Standard. See the GENERAL INFORMATION section of this label for a description of noncrop sites.

DO NOT enter treated areas without protective clothing until sprays have dried.

CHOPPER® herbicide may be used only in accordance with recommendations and restrictions in this leaflet label. Keep containers closed to avoid spills and contamination.

STORAGE AND DISPOSAL

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

PESTICIDE STORAGE: DO NOT store below 10° F.

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

CONTAINER DISPOSAL

Nonrefillable Container. DO NOT reuse or refill this container. Triple rinse or pressure rinse container (or equivalent) promptly after emptying; then offer for recycling, if available, or reconditioning, if appropriate, or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures approved by state and local authorities.

Triple rinse containers small enough to shake (capacity ≤ 5 gallons) 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.

Triple rinse containers too large to shake (capacity > 5 gallons) 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 mix tank and continue to drain for 10 seconds after the flow begins to drip.

Hold container upside down over application equipment or mix tank, or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

Refillable Container. Refill this container with pesticide only. **DO NOT** reuse this container for any other purpose. Triple rinsing the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller.

Triple rinse as follows: To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10% full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times.

When this container is empty, replace the cap and seal all openings that have been opened during use; return the container to the point of purchase or to a designated location. This container must only be refilled with a pesticide product. **DO NOT** reuse the container for any other purpose. Prior to refilling, inspect carefully for damage such as cracks, punctures, abrasions, worn-out threads and closure devices. Check for leaks after refilling and before transport. **DO NOT** transport if this container is damaged or leaking. If the container is damaged, or leaking, or obsolete and not returned to the point of purchase or to a designated location, triple rinse emptied container and offer for recycling, if available, or dispose of container in compliance with state and local regulations.

In Case of Spill

In case of large-scale spillage regarding this product, call:
CHEMTREC 1-800-424-9300
BASF Corporation 1-800-832-HELP (4357)

IMPORTANT

DO NOT use on food or feed crops. **DO NOT** apply to the inside of ditches used to transport irrigation water. Keep from contact with fertilizers, insecticides, fungicides, and seeds to prevent unintentional exposure of desirable vegetation to **CHOPPER**. **DO NOT** apply or drain or flush equipment on or near sensitive desirable plants, or on areas where their roots may extend, or in locations where the chemical may be washed or moved into contact with their roots. **DO NOT** use on Christmas trees. Thoroughly clean application equipment after use. Flush tank, pump, hoses, and boom with several changes of water after removing nozzle tips and screens (clean these parts separately).

GENERAL INFORMATION

CHOPPER is an aqueous formulation that is readily mixable with water, diesel oil, or recommended seed oils and penetrating oils. For foliar applications, **CHOPPER** may be mixed with water as the spray carrier or an emulsion carrier may be prepared by mixing **CHOPPER** into water and

then adding a suitable seed oil at 12 to 50%, by volume. **CHOPPER® herbicide** is to be mixed with water or a penetrating oil and applied as a spray to cut stumps.

CHOPPER should be mixed with a penetrating oil for application to the basal area of brush and trees. Adequate agitation should be maintained with all **CHOPPER** emulsion mixtures to prevent phase separation. Prior to actual tank mixing with other products, herbicides and carrier oils, compatibility testing in small containers is recommended! **CHOPPER** is recommended for vegetation control in forestry sites. Roadsides contiguous with the treated area may be included.

CHOPPER is recommended for control of vegetation in forestry site preparation, in directed applications for conifer release and for mid-rotation release using understory broadcast applications.

CHOPPER is also recommended for the control of undesirable vegetation along non-irrigation ditch banks and for the establishment and maintenance of wildlife openings, except in the state of California. See use directions for CUT STUMP TREATMENTS, TREE INJECTION TREATMENTS, FRILL OR GRIDLE TREATMENTS, THINLINE BASAL AND STEM APPLICATIONS, LOW VOLUME BASAL BARK TREATMENTS and LOW VOLUME FOLIAR APPLICATIONS.

CHOPPER may be applied on forestry sites that contain areas of temporary surface water caused by the collection of water between planting beds, in equipment ruts, or in other depressions created by forest management activities, except in the states of California and New York. It is permissible to treat drainage ditches, intermittent drainage, intermittently flooded low lying sites, seasonally dry flood plains, and transitional areas between upland and lowland sites when no water is present, except in the states of California and New York. Only the edge of drainage ditches can be treated for drainage ditches that contain water. It is also permissible to treat marshes, swamps, and bogs after water has receded, as well as seasonally dry flood deltas, except in the states of California and New York.

DO NOT make applications to natural or man-made bodies of water such as lakes, reservoirs, ponds, streams, rivers and canals.

SYMPTOMOLOGY:

CHOPPER is readily absorbed through foliage, bark and roots and is translocated rapidly throughout the plant, with accumulation in meristematic regions. Treated plants stop growing soon after herbicide application. Chlorosis first appears in the youngest leaf tissue. In perennials, the herbicide is translocated into the roots, thus preventing resprouting. Chlorosis and tissue necrosis may not be apparent in some species for several weeks after application. Woody plants, brush, and trees may not display the full extent of herbicide control until several months following application.

MANAGING OFF-TARGET MOVEMENT

The following information is provided as general guidance for managing off-target movement. Specific use recommendations for **CHOPPER** may differ depending on the

application technique used and the vegetation management objective.

Spray Drift: 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.

Spray drift from applying this product may result in damage to sensitive plants adjacent to the treatment area. Only apply this product when the potential for drift to these and other adjacent sensitive areas (e.g. residential areas, bodies of water, known habitat for threatened or endangered species, or non-target crops) is minimal. **DO NOT** apply when the following conditions exist that increase the likelihood of spray drift from intended targets: high or gusty winds, high temperatures, low humidity, temperature inversions.

To minimize spray drift, the applicator should be familiar with and take into account the following drift reduction advisory information. Additional information may be available from state enforcement agencies or the Cooperative Extension on the application of this product.

The best drift management strategy and most effective way to reduce drift potential are to apply large 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 airstream produces larger droplets than other orientations and is recommended practice. Significant deflection from the 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. **DO NOT** use nozzles producing a mist droplet spray.

Application Height: Making applications at the lowest possible height (aircraft, ground driven spray boom) that is safe and practical reduces exposure of droplets to evaporation and wind.

Swath Adjustment: When applications are made with a crosswind, the swath will be displaced downwind.

Therefore, on the up and downwind edges of the field, the applicator must compensate for this displacement by adjusting the path of the application equipment (e.g. aircraft, ground) upwind. Swath adjustment distance should increase with increasing drift potential (higher wind, smaller droplets, etc.).

Wind: Drift potential is lowest between wind speeds of 3 to 10 mph. However, many factors, including droplet size and equipment type, determine drift potential at any given speed. Application should be avoided below 3 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: Drift potential is high during a temperature inversion. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain in a concentrated cloud, which 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 or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.

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

Aerial Application Methods and Equipment: Use 2 or more gallons of water per acre. The actual minimum spray volume per acre is determined by the spray equipment used. Use adequate spray volume to provide accurate and uniform distribution of spray particles over the treated area and to avoid spray drift.

Managing spray drift from aerial applications:

Applicators must follow these requirements to avoid off-target drift movement: 1) boom length - the distance of the outermost nozzles on the boom must not exceed 3/4 the length of the wingspan or rotor, 2) nozzle orientation - nozzles must always point backward parallel with the air stream and never be pointed downward more than 45 degrees, and 3) application height - without compromising aircraft safety, applications should be made at a height of 10 feet or less above the crop canopy or tallest plants. Applicators must follow the most restrictive use cautions to

avoid drift hazards, including those found in this labeling as well as applicable state and local regulations and ordinances.

Ground Application (Broadcast): Use 5 or more gallons of water per acre. The actual minimum spray volume per acre is determined by the spray equipment used. Use adequate spray volume to provide accurate and uniform distribution of spray particles over the treated area and to avoid spray drift.

CONIFER SITE PREPARATION TREATMENTS

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

| Crop Species | Rate (ozs/A) |
|--|--------------|
| Loblolly Pine (<i>Pinus taeda</i>) | 48 - 80 |
| Loblolly X Pitch Hybrid | 48 - 80 |
| Longleaf Pine (<i>Pinus palustris</i>) | 48 - 80 |
| Shortleaf Pine (<i>Pinus echinata</i>) | 48 - 80 |
| Virginia Pine (<i>Pinus virginiana</i>) | 48 - 80 |
| Slash Pine (<i>Pinus elliotii</i>) | 40 - 64 |
| Douglas Fir (<i>Pseudotsuga menziesii</i>) | 24 - 48 |
| Incense Cedar (<i>Libocedrus decurrens</i>) | 24 - 48 |
| Larch (<i>Larix</i> spp.) | 24 - 48 |
| Western Hemlock (<i>Tsuga heterophylla</i>) | 24 - 48 |
| Western Red Cedar (<i>Thuja plicata</i>) | 24 - 48 |
| Coast Redwood (<i>Sequoia sempervirens</i>) | 24 - 48 |
| California Red Fir (<i>Abies magnifica</i>) | 24 - 40 |
| California White Fir (<i>Abies concolor</i>) | 24 - 40 |
| Jack Pine (<i>Pinus banksiana</i>) | 24 - 32 |
| Lodgepole Pine (<i>Pinus contorta</i>) | 24 - 32 |
| Pitch Pine (<i>Pinus rigida</i>) | 24 - 32 |
| Ponderosa Pine (<i>Pinus ponderosa</i>) | 24 - 32 |
| Red Pine (<i>Pinus resinosa</i>) ² | 24 - 32 |
| Sugar Pine (<i>Pinus lambertiana</i>) | 24 - 32 |
| White Pine (<i>Pinus strobus</i>) | 24 - 32 |
| Black Spruce (<i>Picea mariana</i>) ¹ | 24 - 32 |
| Red Spruce (<i>Picea rubens</i>) | 24 - 32 |
| White Spruce (<i>Picea glauca</i>) ¹ | 24 - 32 |

¹ **DO NOT** plant seedlings of black spruce (*Picea mariana*) or white spruce (*Picea glauca*) on sites that have been site prepared with a broadcast application of **CHOPPER** or into the treated zone of spot or banded site preparation applications for three months following treatment or injury may occur.

² **DO NOT** plant seedlings of Red Pine (*Pinus resinosa*) on sites that have been site prepared with a broadcast application of **CHOPPER** or into the treated zone of spot or banded site preparation applications for six months following treatment or injury may occur.

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

For tracts to be planted with loblolly, loblolly x pitch hybrid, longleaf pine, shortleaf pine, Virginia pine and slash pine, **CHOPPER® herbicide** may be applied at a rate of 64 oz per acre on areas that have little to no resprouting vegetation because of recent management activities such as harvesting, mechanical shearing, burning piling or bedding. Applications must be made after September 1.

MIXING and APPLICATION INSTRUCTIONS for SITE PREPARATION:

Apply the recommended rate of **CHOPPER** per acre in 5 to 20 gallons total spray carrier for helicopter applications or 5 to 40 gallons total spray carrier for mechanical or backpack ground spray applications. Enhanced brownout for burning and improved control of brush and grasses may be obtained by application of **CHOPPER** in 12 to 50% oil:water (volume:volume) emulsion carrier. Methylated or ethylated seed oils containing at least 50% esterified seed oil by volume are recommended. Mix **CHOPPER** into the water portion of the carrier thoroughly, then add the oil and mix thoroughly again to obtain a uniform emulsion. Use the higher label rates of **CHOPPER** and higher spray volumes when controlling particularly dense or multi-layered canopies of hardwood stands, or difficult to control species. Make applications during the growing season; beginning in the spring after full leaf expansion of the target weed or brush has occurred and complete applications before leaf drop in the fall.

Tank mixes may be necessary for chemical control of conifers and other species tolerant to **CHOPPER** in certain cases. Observe all precautions and restrictions on the product labels. Always follow the most restrictive label. Combinations with other products labeled for forest site preparation may kill certain plants such as legume's and blackberry which are desirable for wildlife habitat.

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

HELICOPTER SPRAY EQUIPMENT

All precautions should be taken to minimize or eliminate spray drift. Applications should not be made under gusty conditions. The use of controlled droplet booms and nozzle configurations is recommended.

IMPORTANT: DO NOT make applications by fixed wing aircraft. Maintain adequate buffer zones. Thoroughly clean application and mixing equipment, including landing gear, immediately after use. Prolonged exposure of this product to uncoated steel (except stainless steel) surfaces may result in corrosion and failure of the exposed part.

HARDWOOD SITE PREPARATION TREATMENTS

For site preparation prior to planting hardwood species in the southeast and gulf coast states (Virginia to Texas), use **CHOPPER** at a rate of 48 oz per acre and spray before the end of July. Application in an emulsion carrier with a

minimum of 12% oil is recommended. **DO NOT** plant hardwood seedlings before January of the year following site preparation or injury may occur.

DIRECTED FOLIAR APPLICATIONS FOR CONIFER RELEASE

CHOPPER may be applied as a directed spray using water or oil emulsion carrier for control and suppression of labeled brush and weed species. Directed spray applications may be made using low carrier volumes (generally 10 gallons total spray per acre or less) in labeled conifer stands of all ages by targeting the unwanted vegetation and avoiding direct application to the conifer. Ensure that the maximum labeled rates per acre listed for the conifer species are not exceeded.

Use directed foliar applications of CHOPPER for release of the following conifers from hardwood competition:

| Crop Species | Rate (fl ozs/Acre) |
|---|--------------------|
| Loblolly Pine (<i>Pinus taeda</i>) | 24 - 40 |
| Loblolly X Pitch Hybrid | 24 - 40 |
| Virginia Pine (<i>Pinus virginiana</i>) | 24 - 40 |
| Longleaf Pine (<i>Pinus palustris</i>) | 24 - 32 |
| Pitch Pine (<i>Pinus rigida</i>) | 24 - 32 |
| Shortleaf Pine (<i>Pinus echinata</i>) | 24 - 32 |
| Slash Pine (<i>Pinus elliotii</i>) | 24 - 32 |
| Coast Redwood (<i>Sequoia sempervirens</i>) | 16 - 32 |
| Incense Cedar (<i>Libocedrus decurrens</i>) | 16 - 32 |
| Western Red Cedar (<i>Thuja plicata</i>) | 16 - 32 |
| White Pine (<i>Pinus strobus</i>) | 16 - 32 |
| Douglas Fir (<i>Pseudotsuga menziesii</i>) | 16 - 24 |
| Lodgepole Pine (<i>Pinus contorta</i>) | 16 - 24 |
| Black Spruce (<i>Picea mariana</i>) | 12 - 24 |
| Jack Pine (<i>Pinus banksiana</i>) | 12 - 24 |
| Red Spruce (<i>Picea rubens</i>) | 12 - 24 |
| White Spruce (<i>Picea glauca</i>) | 12 - 24 |

For applications directed to the foliage of undesirable brush mix 2 to 10% **CHOPPER** in water. For brush species with thick leaf cuticles or difficult to control species use oil emulsion carrier containing 12 to 50%, by volume, recommended oil diluent. Apply the spray solution or emulsion to at least 2/3's of each hardwood crown using backpack sprayers or hand held equipment. **DO NOT** spray to the point of runoff and avoid spraying the conifers for best results. For low volume foliar applications to control big leaf maple a 5% by volume **CHOPPER** solution or emulsion is recommended.

Some minor conifer growth inhibition may be observed when release treatments are made during periods of active conifer growth. To minimize potential conifer height growth inhibition, release treatments may be made late in the growing season after formation of final conifer resting buds. To prevent possibility of conifer injury, **DO NOT** apply **CHOPPER** when conifers are under stress from drought,

diseases, animal or winter injury, or other stresses reducing conifer vigor.

Injury may occur to non-target or desirable hardwoods if they extend from the same root system as treated stems, or their root systems are grafted to those of the treated tree, or if their roots extend into the soil near treated trees.

BAG AND BROADCAST APPLICATIONS FOR CONIFER RELEASE

In Douglas-fir and Ponderosa pine stands, broadcast applications of **CHOPPER® herbicide** up to 32 oz per acre are permissible when the trees are covered by bags prior to the application. The bags must prevent the spray mix from contacting the conifer foliage. For improved control of brush species, particularly evergreens, add a suitable seed oil at 5 to 12 % by volume. On sites with coarse textured soils (e.g. decomposed granite, pumice, sandy or rocky sites) or low levels of soil organic matter (generally 5% or less) significant conifer growth inhibition and mortality is possible. **DO NOT** use this treatment on these types of sites if conifer growth inhibition and mortality cannot be tolerated.

LATE ROTATION VEGETATION CONTROL IN WESTERN CONIFERS

In California, the Pacific Northwest and Inland Northwest, broadcast aerial applications of **CHOPPER** up to 48 oz per acre are permissible in conifer stands that are targeted for harvesting the year following treatment. Use a minimum spray volume of 15 gallons per acre. For improved control of brush species, particularly evergreens, add a suitable seed oil at 5 to 12 % by volume. Significant conifer injury or mortality must be expected. **DO NOT** use this treatment if conifer injury or mortality cannot be tolerated.

UNDERSTORY BROADCAST APPLICATIONS FOR MID-ROTATION RELEASE

CHOPPER may be applied as a broadcast application below the conifer canopy to control understory brush and suppress trees for labeled species. Ground spray machinery or hand held equipment may be used to broadcast **CHOPPER** in water or oil emulsion carrier below the crop tree canopy in a manner as to minimize spray contact by the live crown of crop trees.

Ensure that maximum labeled rates per acre listed for crop species below are not exceeded.

| Crop Species | Maximum Rate (fl oz/Acre) |
|---|---------------------------|
| Loblolly Pine (<i>Pinus taeda</i>) | 64 |
| Loblolly X Pitch Hybrid | 64 |
| Virginia Pine (<i>Pinus virginiana</i>) | 64 |
| Longleaf Pine (<i>Pinus palustris</i>) | 32 |
| Pitch Pine (<i>Pinus rigida</i>) | 32 |
| Shortleaf Pine (<i>Pinus echinata</i>) | 32 |
| Slash Pine (<i>Pinus elliottii</i>) | 32 |

CUT STUMP TREATMENTS

Mix 8.0 to 16.0 fluid ounces of **CHOPPER** in 1 gallon of water*, diesel oil, or a penetrating oil. **CHOPPER** may be tank mixed with **Garlon® 3A**, **Garlon® 4**, **Tordon® K**,

Escort® or **Roundup®** to control labeled species. Spray or brush the **CHOPPER** solution onto the cambium area of the freshly cut stump surface. Insure that the **CHOPPER** solution thoroughly wets the cambium area (the wood next to the bark) of the stump. The use of a surfactant or penetrating agent may improve uptake through partially callused cambiums. Applications can be made anytime during the year except during periods of heavy sap flow in the spring. **DO NOT** over apply causing puddling.

***Note:** Use water as a diluent only when temperatures are sufficient to prevent freezing or add antifreeze (ethylene glycol) according to label directions to prevent freezing.

TREE INJECTION TREATMENTS

No Worker Protection Standard worker entry restrictions or worker notification requirements apply when this product is directly injected into agricultural plants.

Mix 8.0 to 12.0 fluid ounces of **CHOPPER** in 1 gallon of water*. Using standard injection equipment, apply 1 ml. of **CHOPPER** solution at each injection site around the tree with no more than 1 inch intervals between cut edges. Insure that the injector completely penetrates the bark at each site.

***Note:** Use water as a diluent only when temperatures are sufficient to prevent freezing or add antifreeze (ethylene glycol) according to label directions to prevent freezing.

FRILL OR GIRDLE TREATMENTS

Mix 8.0 to 12.0 fluid ounces of **CHOPPER** in 1 gallon of water*, diesel oil, or a penetrating oil. Using a hatchet, machete, or similar tool, make cuts through the bark and completely around the tree with no more than 2 inch intervals between cut edges. Spray or brush the **CHOPPER** solution into each cut until thoroughly wet.

***Note:** Use water as a diluent only when temperatures are sufficient to prevent freezing or add antifreeze (ethylene glycol) according to label directions to prevent freezing.

THINLINE BASAL AND STEM APPLICATIONS

CHOPPER may be applied as a thinline basal or arcing application to the stems of susceptible species such as big leaf maple (*Acer macrophyllum*), willow (*Salix* spp.) and Eucalyptus (*Eucalyptus* spp.) with a stem ground line diameter of 3 inches or less. Mix 24 to 48 ounces of **CHOPPER** in 1 gallon of diesel oil or penetrating oil. Maintain uniform mixtures with frequent agitation. Direct a thin line of the spray solution to the stems beginning a few feet from the ground and descending toward the base of the tree making a zig-zag motion. **DO NOT** over apply causing puddling.

LOW VOLUME BASAL BARK TREATMENTS

Mix 8.0 to 12.0 fluid ounces of **CHOPPER** in 1 gallon of diesel oil or a penetrating oil. To control mixed brush species with up to 4 inch stem diameter at breast height, spray to wet the lower 12 to 18 inches of the stem with the **CHOPPER** oil mixture (include the root collar area). **DO NOT** over apply causing dripping or puddling. Maintain uniform mixtures with frequent agitation.

LOW VOLUME FOLIAR APPLICATIONS

CHOPPER® herbicide may be applied as a low volume foliar application. Mix 3 to 5% **CHOPPER** in water and adjuvant or in a penetrating oil. For small brush spray down on the crown to cover approximately 70% of the plant foliage. For larger brush insure coverage on as much of the crown as possible and spray at least two sides of the plant. may be tank mixed with other labeled herbicides. Use a tank mix of 3 to 5% **CHOPPER** plus 15 to 20% **Garlon 4** in basal oil to control black locust, honey locust, hackberry, elms and other species listed on manufacturer's labels. Use the higher rate of **CHOPPER** (5%) in areas containing sassafras, oak, hickory, cherry, and maples or in the southern 2/3's of the U.S. A tank mix of 3% **CHOPPER** + **Garlon® 4** or **CHOPPER** is effective in the Northeastern U.S.

SPRAY SOLUTION MIXING GUIDE FOR LOW VOLUME FOLIAR APPLICATIONS

| AMOUNT OF SPRAY SOLUTION BEING PREPARED | DESIRED CONCENTRATION (fluid volume) | | | |
|---|--------------------------------------|-------------|--------------|--------------|
| | CHOPPER | | Garlon 4 | |
| | 3% | 5% | 15% | 20% |
| 1 gallon | 3.8 oz | 6.4 oz | 19.2 oz | 25.6 oz |
| 3 gallons | 11.5 oz | 19.2 oz | 57.6 oz | 76.8 oz |
| 4 gallons | 15.4 oz | 25.6 oz | 76.8 oz | 102.4 oz |
| 5 gallons | 19.2 oz | 32.0 oz | 96.0 oz | 1.0 gallon |
| 50 gallons | 1.5 gallons | 2.5 gallons | 7.5 gallons | 10.0 gallons |
| 100 gallons | 3.0 gallons | 5.0 gallons | 15.0 gallons | 20.0 gallons |

INVERT EMULSIONS

CHOPPER can be applied as an invert emulsion carrier. The carrier is a thick invert water-in-oil spray emulsion designed to minimize spray drift and spray run-off, resulting in more herbicide on the target foliage. The spray emulsion may be formed in a single tank (batch mixing) or injected (in-line mixing). Consult the invert chemical label for proper mixing directions. **DO NOT** exceed 3 quarts/Acre of **CHOPPER**.

WEEDS CONTROLLED

CHOPPER will provide postemergence control and some residual control of the following target vegetation species. Degree of control is both species and rate dependent.

GRASSES

The species of annual and perennial grasses controlled by **CHOPPER** include the following:

- Annual bluegrass (*Poa annua*)
- Bahiagrass (*Paspalum notatum*)
- Barnyardgrass (*Echinochloa crus-galli*)
- Beardgrass (*Andropogon* spp.)
- Bermudagrass (*Cynodon dactylon*)
- Big bluestem (*Andropogon gerardii*)
- Broadleaf signalgrass (*Brachiaria platyphylla*)
- Canada bluegrass (*Poa compressa*)
- Cattail (*Typha* spp.)
- Cheat (*Bromus secalinus*)

- Cogongrass (*Imperata cylindrica*)¹
- Crabgrass (*Digitaria* spp.)
- Crowfootgrass (*Dactyloctenium aegyptium*)
- Dallisgrass (*Paspalum dilatatum*)
- Downy brome (*Bromus tectorum*)
- Fall panicum (*Panicum dichotomiflorum*)
- Feathertop (*Pennisetum villosum*)
- Fescue (*Festuca* spp.)
- Foxtail (*Setaria* spp.)
- Giant reed (*Arundo donax*)
- Goosegrass (*Eleusine indica*)
- Guineagrass (*Panicum maximum*)
- Italian ryegrass (*Lolium multiflorum*)
- Itchgrass (*Rottboellia exaltata*)
- Johnsongrass (*Sorghum halepense*)
- Junglerice (*Echinochloa colonum*)
- Kentucky bluegrass (*Poa pratensis*)
- Lovegrass (*Eragrostis* spp.)
- Orchardgrass (*Dactylis glomerata*)
- Panicum* spp.
- Paragrass (*Brachiaria mutica*)
- Phragmites (*Phragmites australis*)
- *Pinegrass (*Calamagrostis rubescens*)
- Prairie cordgrass (*Spartina pectinata*)
- Prairie threeawn (*Aristida oligantha*)
- Quackgrass (*Agropyron repens*)
- Reed canary grass (*Phalaris arundinacea*)
- Saltgrass (*Distichlis stricta*)
- Sand dropseed (*Sporobolus cryptandrus*)
- Sandbur (*Cenchrus* spp.)
- Smooth brome (*Bromus inermis*)
- Sprangletop (*Leptochloa* spp.)
- Timothy (*Phleum pratense*)
- Torpedograss (*Panicum repens*)
- Vaseygrass (*Paspalum urvillei*)
- Wild barley (*Hordeum* spp.)
- Wild oats (*Avena fatua*)
- Wirestem muhly (*Muhlenbergia frondosa*)
- Witchgrass (*Panicum capillare*)
- Woolly cupgrass (*Eriochloa villosa*)

*Chopper is not registered for use on pinegrass in California.
¹ Use minimum of 48 oz per acre.

BROADLEAF WEEDS

The species of annual and perennial broadleaf weeds controlled by **CHOPPER** include the following:

- Arrowwood (*Pluchea sericea*)
- Broom snakeweed (*Gutierrezia sarothrae*)
- Bull Thistle (*Cirsium vulgare*)
- Burclover (*Medicago* spp.)
- Burdock (*Arctium* spp.)
- Camphorweed (*Heterotheca subaxillaris*)
- Carolina geranium (*Geranium carolinianum*)
- Carpetweed (*Mullugo verticillata*)
- Chickweed, mouseear (*Cerastium vulgatum*)
- Clover (*Trifolium* spp.)
- Cocklebur (*Xanthium strumarium*)
- Common chickweed (*Stellaria media*)
- Common ragweed (*Ambrosia artemisiifolia*)

- Cudweed (*Gnaphalium* spp.)
- Dandelion (*Taraxacum officinale*)
- Desert camelthorn (*Alhagi pseudalhagi*)
- Diffuse knapweed (*Centaurea diffusa*)
- Dock (*Rumex* spp.)
- Dogfennel (*Eupatorium capillifolium*)
- Fiddleneck (*Amsinckia intermedia*)
- Filaree (*Erodium* spp.)
- Fleabane (*Erigeron* spp.)
- Giant ragweed (*Ambrosia trifida*)
- Goldenrod (*Solidago* spp.)
- Gray rabbitbrush (*Chrysothamnus nauseosus*)
- Henbit (*Lamium alexicaule*)
- Hoary vervain (*Verbena stricta*)
- Horseweed (*Conyza canadensis*)
- Indian mustard (*Brassica juncea*)
- Japanese bamboo/knotweed (*Polygonum cuspidatum*)
- Knotweed, prostrate (*Polygonum aviculare*)
- Kochia (*Kochia scoparia*)
- Lambsquarters (*Chenopodium album*)
- Little mallow (*Malva parviflora*)
- Milkweed (*Asclepias* spp.)
- Miners lettuce (*Montia perfoliata*)
- Mullein (*Verbascum* spp.)
- Nettleleaf goosefoot (*Chenopodium murale*)
- Oxeye daisy (*Chrysanthemum leucanthemum*)
- Pepperweed (*Lepidium* spp.)
- Pigweed (*Amaranthus* spp.)
- Plantain (*Plantago* spp.)
- Pokeweed (*Phytolacca americana*)
- Primrose (*Oenothera kunthiana*)
- Puncturevine (*Tribulus terrestris*)
- Purple loosestrife (*Lythrum salicaria*)
- Purslane (*Portulaca* spp.)
- Pusley, Florida (*Richardia scabra*)
- Rocket, London (*Sisymbrium irio*)
- Rush skeletonweed (*Chondrilla juncea*)
- Russian knapweed (*Centaurea repens*)
- Russian thistle (*Salsola kali*)
- Saltbush (*Atriplex* spp.)
- Shepherd's purse (*Capsella bursa-pastoris*)
- Silverleaf nightshade (*Solanum elaeagnifolium*)
- Smartweed (*Polygonum* spp.)
- Sorrell (*Rumex* spp.)
- Sowthistle (*Sonchus* spp.)
- Spurge, annual (*Euphorbia* spp.)
- Stinging nettle (*Urtica dioica*)
- Sunflower (*Helianthus* spp.)
- Sweet clover (*Melilotus* spp.)
- Tansymustard (*Descurainia pinnata*)
- Texas thistle (*Cirsium texanum*)
- Velvetleaf (*Abitilon theophrasti*)
- Western ragweed (*Ambrosia psilostachya*)
- Wild carrot (*Daucus carota*)
- Wild lettuce (*Lactuca* spp.)
- Wild parsnip (*Pastinaca sativa*)
- Wild turnip (*Brassica campestris*)
- Woollyleaf bursage (*Ambrosia grayi*)
- Yellow starthistle (*Centaurea solstitialis*)
- Yellow woodsorrel (*Oxalis stricta*)

VINES AND BRAMBLES

The species of vines and brambles controlled by **CHOPPER® herbicide** include the following:

- Field bindweed (*Convolvulus arvensis*)
- Hedge bindweed (*Calystegia sepium*)
- Honeysuckle (*Lonicera* spp.)¹
- Morningglory (*Ipomoea* spp.)
- Poison ivy (*Rhus radicans*)
- Redvine (*Brunnichia cirrhosa*)
- Trumpet creeper (*Campsis radicans*)
- Virginia creeper (*Parthenocissus quinquefolia*)
- Wild buckwheat (*Polygonum convolvulus*)
- Wild grape (*Vitis* spp.)
- Wild rose (*Rosa* spp.)¹
 - Including Multiflora rose (*Rosa multiflora*)
 - Macartney rose (*Rosa bracteata*)

¹ Use higher labeled rates.

WOODY BRUSH AND TREES

The species of woody brush and trees controlled by **CHOPPER** include the following:

- Alder (*Alnus* spp.)
- American beech (*Fagus grandifolia*)
- Ash (*Fraxinus* spp.)¹
- Aspen (*Populus* spp.)
- Australian pine (*Casuarina equisetifolia*)⁵
- Autumn olive (*Elaeagnus umbellata*)
- Bald cypress (*Taxodium distichum*)⁴
- Bigleaf maple (*Acer macrophyllum*)¹
- Birch (*Betula* spp.)
- Black locust (*Robinia pseudoacacia*)⁵
- Black oak (*Quercus kelloggii*)
- Blackgum (*Nyssa sylvatica*)²
- Boxelder (*Acer negundo*)
- Brazilian peppertree (*Schinus terebinthifolius*)
- Ceanothis (*Ceanothis* spp.)
- Cherry (*Prunus* spp.)^{1,2}
- Chinaberry (*Melia azedarach*)
- Chinese tallow-tree (*Sapium sebiferum*)
- Chinquapin (*Castanopsis chrysophylla*)⁴
- Cottonwood (*Populus* spp.)
- Cypress (*Taxodium* spp.)
- Dogwood (*Cornus* spp.)¹
- Elderberry (*Sambucus* spp.)⁵
- Elm (*Ulmus*)⁵
- Eucalyptus (*Eucalyptus* spp.)
- Hawthorn (*Crataegus* spp.)
- Hazel (*Corylus cornuta*)⁵
- Hickory (*Carya* spp.)¹
- Holly (*Ilex* spp.)^{1,4}
 - Including Gallberry (*Ilex glabra*)
 - Tall gallberry (*Ilex coriacea*)
 - Yaupon (*Ilex vomitoria*)
- Honeylocust (*Gleditsia triacanthos*)⁵
- Huckleberry (*Gaylussacia* spp.)
- Lyonia* spp.
 - Including Fetterbush (*Lyonia lucida*)
 - Staggerbush (*Lyonia mariana*)

- Madrone (*Arbutus menziesii*)
- Manzanita, greenleaf (*Arctostaphylos patula*)⁴
- Maple (*Acer* spp.)
- Melaleuca (*Melaleuca quinquenervia*)
- Mulberry (*Morus* spp.)^{1,3}
- Oak (*Quercus* spp.)^{1,3}
- Persimmon (*Diospyros virginiana*)²
- Poison oak (*Rhus diversiloba*)
- Popcorn-tree (*Sapinum sebiferum*)
- Poplar (*Populus* spp.)²
- Privet (*Ligustrum vulgare*)
- Red alder (*Alnus rubra*)
- Red maple (*Acer rubrum*)
- Saltcedar (*Tamarix pentandra*)
- Sassafras (*Sassafras albidum*)
- Scotch broom (*Cytisus scoparius*)⁵
- Sourwood (*Oxydendrum arboreum*)²
- Sumac (*Rhus* spp.)
- Sweetbay magnolia (*Magnolia virginiana*)^{1,4}
- Sweetgum (*Liquidambar styraciflua*)
- Sycamore (*Platanus occidentalis*)
- Tanoak (*Lithocarpus densiflorus*)^{1,4,5}
- TiTi (*Cyrilla racemiflora*)^{1,4,6}
- Tree of heaven (*Ailanthus altissima*)
- Vaccinium* spp.
 - Including Blueberry (*Vaccinium* spp.)
 - Sparkleberry (*Vaccinium arboreum*)
- Waxmyrtle (*Myrica californica*)^{1,4}
 - (*Myrica cerifera*)^{1,4}
- Willow (*Salix* spp.)
- Yellow-poplar (*Liriodendron tulipifera*)¹

- ¹ Use higher labeled rates.
- ² Best control with applications prior to formation of fall leaf color.
- ³ The degree of control may be species dependent.
- ⁴ Oil emulsion carrier is recommended.
- ⁵ Tank mix with **Garlon® 4** as a basal or cut stump treatment
- ⁶ Suppression only

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Conditions of Sale and Warranty

The **Directions For Use** of this product reflect the opinion of experts based on field use and tests. The directions are believed to be reliable and must be followed carefully. However, it is impossible to eliminate all risks inherently associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or use of the product in a manner inconsistent with its labeling, all of which are beyond the control of BASF CORPORATION ("BASF") or the Seller. To the extent consistent with applicable law, all such risks shall be assumed by the Buyer.

BASF warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes referred to in the **Directions For Use**, subject to the inherent risks, referred to above.

To the extent consistent with applicable law, BASF makes no other express or implied warranty of fitness or merchantability or any other express or implied warranty.

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To the extent consistent with applicable law, BASF and the Seller disclaim any liability for consequential, special or indirect damages resulting from the use or handling of this product.

BASF and the Seller offer this product, and the Buyer and User accept it, subject to the foregoing **Conditions of Sale and Warranty** which may be varied only by agreement in writing signed by a duly authorized representative of BASF.

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