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

JAN 28 1994

**Glenda Haage  
RIVERSIDE/TERRA CORP.  
600 Fourth Street  
Sicux City, IA. 51101**

**OFFICE OF  
PREVENTION, PESTICIDES AND  
TOXIC SUBSTANCES**

**Subject: Label Amendment Submission of 08/23/93 In Response to PR Notice 93-7  
EPA Reg. No. 9779-296  
SIMAZINE 4L**

**Dear Registrant:**

The labeling cited above and submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), as amended, is accepted subject to the comments reflected on the enclosed sheet. A copy of your proposed labeling stamped "ACCEPTED WITH COMMENTS" is enclosed.

**WHAT THIS ACCEPTANCE MEANS:**

Based on your certification, the Agency has accepted the labeling changes that are necessary to comply with the Worker Protection Standard (WPS) labeling requirements of 40 CFR part 156, subpart K, described in PR Notices 93-7 and 93-11. Any other labeling changes submitted in connection with this amendment application but not directly related to compliance with the WPS have not been reviewed or accepted by the Agency. If you wish to make such changes, you must submit a separate amendment application proposing them. If your product is currently suspended, the acceptance of this labeling amendment does not affect the suspension in any way.

**WHAT YOU NEED TO DO NEXT:**

By the next label printing make all the specified changes to your labeling. Send to EPA one (1) copy of the final printed labeling:

- BEFORE selling or distributing any product bearing the final printed labeling
- AND
- WITHIN one year from date of this acceptance.



**Recycled/Recyclable**  
Printed with Soy/Canola ink on paper that  
consists of at least 50% recycled fiber

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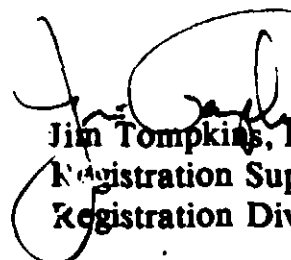
Submit the final printed labeling via the U.S. Postal Service to:

Document Processing Desk (FIN-LABEL)  
Office of Pesticide Programs (7505C)  
U.S. Environmental Protection Agency  
401 M Street, SW  
Washington, D.C. 20460-0001

Hand or courier deliveries of final printed labeling may be made to:

Document Processing Desk (FIN-LABEL)  
Office of Pesticide Programs  
Room 266A, Crystal Mall 2  
1921 Jefferson Davis Highway  
Arlington, VA 22202

Sincerely,



Jim Tompkins, Deputy Chief  
Registration Support Branch  
Registration Division (7505W)

Attachment

Riverside Trademark®

Simazine 4L

For control of most annual broadleaf and grass weeds

**ACTIVE INGREDIENT**

Simazine: 2-chloro-4,6-bis(ethylamino)-s-triazine.....41.9%

**INERT INGREDIENTS**.....58.1%

Total 100.0%

Simazine 4L contains 4 lbs. active ingredient per gallon.

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**~~STOP READ LABEL BEFORE USING.~~**

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**KEEP OUT OF REACH OF CHILDREN**

**CAUTION**

**STATEMENT OF PRACTICAL TREATMENT**

**IF SWALLOWED:** Drink 1 or 2 glasses of water. Induce vomiting by placing finger back of throat. Call a physician. Never give anything by mouth to an unconscious person.

**IF IN EYES:** Flush with plenty of water. Get medical attention, if irritation persists.

**IF INHALED:** Remove victim to fresh air. If not breathing, give artificial respiration, preferably mouth to mouth. Get medical attention.

**IF ON SKIN:** Remove by washing.

See additional PRECAUTIONARY STATEMENTS on side panel.

EPA Reg. No. 9779-296

EPA Est. No. 9779-AR-13

Manufactured For  
**RIVERSIDE/TERRA CORPORATION**  
Terra Centre, 600 Fourth Street, Sioux City, Iowa 51101  
Riverside Serves Agriculture. Agriculture Serves Everyone.

**NET CONTENTS**  
2-1/2 GALS.

ACCEPTED  
with COMMENTS  
In EPA Letter Dated

Under the Federal Insecticide, Fungicide, and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No. 9779-296

9779-296

**PRECAUTIONARY STATEMENTS**

**CAUTION**

**HAZARDS TO HUMANS AND DOMESTIC ANIMALS**

Causes moderate eye irritation. Harmful if inhaled or absorbed through the skin. Avoid breathing vapors or spray mist. Avoid contact with eyes, skin or clothing. ~~Wash thoroughly with soap and water after handling. Remove and wash contaminated clothing before reuse.~~

~~Applicators and other handlers must wear long-sleeved shirt and long pants, waterproof gloves, and shoes plus socks.~~

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

**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.~~

**ENVIRONMENTAL HAZARDS**

Do not apply directly to water or wetlands. Do not contaminate water when disposing of equipment washwaters. Simazine is a chemical which can travel (seep or leach) through soil and can contaminate ground water which may be used as drinking water. Simazine has been found in ground water as a result of agricultural use. Users are advised not to apply simazine where the water table (ground water) is close to the surface and where the soils are very permeable, i.e., well-drained soils such as loamy sands. Your local agricultural agencies can provide further information on the type of soil in your area and the location of ground water.

**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 through any type of irrigation system.

**FAILURE TO FOLLOW THE DIRECTIONS FOR USE AND PRECAUTIONS ON THIS LABEL MAY RESULT IN CROP INJURY, POOR WEED CONTROL, AND/OR ILLEGAL RESIDUES.**

~~Do not apply this product in such a manner as to directly or through drift expose workers or other persons except those knowingly involved in the application. The area being treated must be vacated by unprotected persons.~~

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

### AGRICULTURAL USE REQUIREMENTS

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

Do not 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.

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: coveralls, waterproof gloves, and 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 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.

Keep unprotected persons or pets out of treated areas until sprays have dried.

### REENTRY STATEMENT

~~Do not enter treated areas without protective clothing until sprays have dried. Protective clothing means, at least, a hat or other suitable head covering, a long sleeved shirt and long legged trousers or a coverall type garment (all of closely woven fabric covering the body, including the arms and legs), gloves, shoes and socks. Because certain states may require more restrictive re-entry intervals for various crops treated with this product, consult your State Department of Agriculture for further information.~~

### **NOTICE TO CROP OWNERS**

~~Written or oral warnings must be given to workers who are expected to be in an area or in an area about to be treated with this product. Oral warnings must be given to workers of areas or fields that may not be entered without specific protective clothing until sprays have dried, and appropriate actions to take in case of accidental exposure as described under PRECAUTIONARY STATEMENTS on this label. When oral warnings are given, warnings should be given in a language customarily understood by the workers. Oral warnings must be given if there is reason to believe that written warnings will not be understood by workers. Written warnings must contain the following information: "CAUTION. Area treated with Simazine 4L on (date of application). Do not enter without appropriate protective clothing until sprays have dried. In case of accidental exposure, flush eyes with plenty of water. Call physician if irritation persists. Do not eat, drink, or smoke and wash contaminated clothing before reuse."~~

### **STORAGE AND DISPOSAL**

**DO NOT CONTAMINATE WATER, FOOD, OR FEED BY STORAGE OR DISPOSAL**

#### **STORAGE**

Store in a dry location away from children, animals, foods, feeds, seeds, and other agricultural chemicals. Handle in accordance with information given under PRECAUTIONARY STATEMENTS. In the event of spillage or leakage, soak up with absorbent clay, sand, sawdust, or other absorbent material. Scrape up and dispose of in accordance with information given under DISPOSAL. Repack and relabel useable product in a sound container. In case of fire or other emergency, call at once by toll-free telephone to 800-424-9300.

#### **DISPOSAL**

**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:** Plastic Containers-Triple rinse (or equivalent). Then offer for recycling or reconditioning or puncture and dispose of in a sanitary landfill, or incineration, or, if allowed by state and local authorities, by burning. If burned, contain any resulting smoke. Metal Containers-Triple rinse (or equivalent). Then offer for recycling, reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedure approved by state and local authorities.

#### **GENERAL INFORMATION**

Simazine 4L is a herbicide that should be applied before weeds emerge or to prevent removal of weed growth. It controls a wide variety of annual broadleaf and grass weeds when used at selective rates in agricultural crops and ornamental plants. When used at higher, non-selective rates in crop areas, it also controls many broadleaf and grass weeds. Since Simazine 4L enters weeds mainly through the soil, rainfall or irrigation is needed to move it into the root zone. Very dry conditions and lack of rainfall following application may necessitate shallow cultivation.

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**Simazine controls most annual broadleaf and grass weeds such as:**

<b>Alyssum</b>	<b>Lambsquarters</b>
<b>Amaranthus</b>	<b>Mustard</b>
<b>Annual Bluegrass</b>	<b>Nightshade</b>
<b>Annual Morningglory</b>	<b>Pepperweed</b>
<b>Annual Ryegrass</b>	<b>Pigweed</b>
<b>Barnyardgrass (Watergrass)</b>	<b>Pineappleweed</b>
<b>Brachiaria spp.</b>	<b>Prickly Lettuce</b>
<b>Burclover</b>	<b>Purslane</b>
<b>Carelessweed</b>	<b>Ragweed</b>
<b>Carpetweed</b>	<b>Rattail Fescue</b>
<b>Common Chickweed</b>	<b>Redmaids</b>
<b>Crabgrass (Digitaria spp.)</b>	<b>Russian Thistle</b>
<b>Downy Brome (Cheat)</b>	<b>Sheperdspurse</b>
<b>Fall Panicum</b>	<b>Shieldscrees</b>
<b>Fiddleneck</b>	<b>Signalgrass (Brachiaria spp.)</b>
<b>Filaree</b>	<b>Silver Hairgrass</b>
<b>Fireweed</b>	<b>Smartweed</b>
<b>Fivehook Bassia</b>	<b>Spanish Needles</b>
<b>Flora's Paintbrush</b>	<b>Speedwell</b>
<b>Florida Pusley</b>	<b>Tansymustard</b>
<b>Foxtails</b>	<b>Wild Mustard</b>
<b>Goosegrass</b>	<b>Wild Oats</b>
<b>Groundsel</b>	<b>Wiregrass</b>
<b>Henbit</b>	<b>Witchgrass</b>
<b>Junglerice</b>	<b>Yellow Flower Pepperweed</b>
<b>Knawel (German Moss)</b>	

Where a range of application rates is given, use the low rate on coarser textured soil and soil lower in organic matter; use the high rate on finer textured soil and soil higher in organic matter.

To avoid spray drift, do not apply under windy conditions. Avoid spray overlap, as crop injury may result.

SIMAZINE 4L is a flowable formulation to be mixed with water and applied as a spray. Add SIMAZINE 4L to the spray tank during or after filling. Sufficient hydraulic (jet) or mechanical agitation should be provided during mixing and application to keep the material in suspension.

FOLLOWING MANY YEARS OF CONTINUOUS USE OF SIMAZINE AND CHEMICALLY RELATED PRODUCTS, BIOTYPES OF SOME OF THE WEEDS LISTED ON THIS LABEL HAVE BEEN REPORTED WHICH CANNOT BE EFFECTIVELY CONTROLLED BY THIS AND RELATED HERBICIDES. WHERE THIS IS KNOWN OR SUSPECTED AND WEEDS CONTROLLED BY THIS PRODUCT ARE EXPECTED TO BE PRESENT ALONG WITH

RESISTANT BIOTYPES, WE RECOMMEND THE USE OF THIS PRODUCT IN REGISTERED COMBINATIONS OR IN SEQUENCE WITH OTHER REGISTERED HERBICIDES WHICH ARE NOT TRIAZINES. IF ONLY RESISTANT BIOTYPES ARE EXPECTED TO BE PRESENT, USE A REGISTERED NON-TRIAZINE HERBICIDE. CONSULT WITH YOUR STATE AGRICULTURAL EXTENSION SERVICE FOR SPECIFIC RECOMMENDATIONS.

**Compatibility test:** To determine the tank mix compatibility of SIMAZINE 90DF with liquid fertilizer, crop oil, spreaders, or recommended pesticides, use this test method. Nitrogen solutions or complete fluid fertilizers may replace all or part of the water in the spray in corn. Since liquid fertilizers can vary, even within the same analysis, check compatibility each time before use. Be especially careful when using complete suspension or fluid fertilizers as serious compatibility problems are more apt to occur. Commercial application equipment may improve compatibility in some instances. Check compatibility using this procedure:

1. Add 1 pint of fertilizer to each of 2 one-quart glass jars with tight lids.
2. To one of the jars add ¼ teaspoon of a compatibility agent approved for this use (¼ teaspoon is equivalent to 2 pints per 100 gallons spray). Cap and shake until mixed. Examples of compatibility agents include Compex<sup>®</sup>, Unite<sup>®</sup>, and Riverside Buffet.
3. To both jars add the appropriate amount of herbicide(s). If more than one herbicide is used, add them separately with dry herbicides first, flowables next, and emulsifiable concentrates last. After each addition, cap and shake until thoroughly mixed. The appropriate amount of herbicides for this test follows (assuming a spray volume of 25 gallons per acre):

**Dry herbicides:** For each pound per acre add 1.5 teaspoons to each jar.  
Fluff up wettable powder products before measuring.

**Liquid herbicides:** For each pint per acre add 0.5 teaspoons to each jar.

For a spray volume other than 25 gallons per acre, change the teaspoons added to each jar as follows:

$$\frac{25 \text{ gallons} \times \text{no. teaspoons given above}}{\text{desired gallons spray volume per acre}} = \text{teaspoons to add to each jar}$$

4. After adding all ingredients, put lids on and tighten. Shake jars vigorously one minute. Let the mixtures stand 15 minutes and then look for separation, large flakes, precipitates, grease, gels, medium to heavy oily film on the jar, or other signs of incompatibility. Determine if the compatibility agent is needed in the spray mixture by comparing the two jars. If either mixture separates, but can be remixed readily, the mixture probably can be sprayed as long as good agitation is used. If the mixtures are incompatible, test the following methods of improving compatibility: (A) slurry the dry herbicide(s) in water before addition, or (B) add ½ of the compatibility agent to the fertilizer and the other ½ to the emulsifiable concentrate or flowable herbicide before addition to the mixture. If still incompatible, do not use the materials mixed in the same spray tank.



## EQUIPMENT

**GROUND APPLICATION:** Use conventional spray equipment with 80° fan-type nozzles. Screens in nozzles as well as those in suction and inline strainers should be no finer than 50 mesh. Use hydraulic or mechanical agitation during mixing and application to maintain a uniform suspension. Use a pump with capacity to maintain 35-40 psi at the nozzles. If hydraulic agitation is used, the pump should also provide sufficient agitation in the tank to keep the mixture in suspension. Wash sprayer thoroughly with clean water immediately after use.

**AERIAL APPLICATION:** Use aerial application only where specified in the use directions. Screens in nozzles as well as those in suction and inline strainers should be no finer than 50-mesh. ~~Avoid application directly to animals or humans. Care should be taken to avoid inhalation of spray mist, or contact with skin. Flagmen and loaders should wash thoroughly before eating and at the end of each day's operation.~~ Wash sprayer thoroughly with clean water immediately after use. Do not apply when weather conditions favor drift from areas treated. Apply this product only as specified on this label. Do not use on any crop in Kern County, California.

Add Simazine 4L directly to the spray tank partially filled with clear water. Add any tank mix ingredients, and then add remainder of water. Provide constant agitation during mixing to keep mixture in suspension. Agitation should not be so violent as to cause air bubbles to form in the mixture. For ground application where the amount of water is not specified, apply SIMAZINE 4L in 20-40 gals. of water per acre. For aerial application, use a minimum of one gallon of water for each 1 qt. of SIMAZINE 4L per acre, unless specified differently.

## FRUIT AND NUT CROPS

Apply the spray to the orchard or vineyard floor avoiding contact with fruit, foliage, or stems. Make application only to orchards or groves where trees have been established one year or more. Make only one application per year, except as noted otherwise. Recommended rates are based on broadcast treatment. For band applications around trees in fruit and nut plantings, reduce the broadcast rate of SIMAZINE 4L and water per acre in proportion to the areas actually sprayed.

**APPLES, PEARS, SOUR CHERRIES:** Apply 2-4 qts. per acre.

**AVOCADOS (California and Florida only):** Apply 2-4 qts. per acre after final preparation in grove. Do not apply to sandy soil.

**BLUEBERRIES AND CANEBERRIES (Blackberries, boysenberries, loganberries, raspberries):** Apply 2-4 qts. per acre in the spring or apply a split application of 2 qts. per acre in the spring plus 2 qts. per acre in the fall. Apply in a minimum of 40 gals. of water per acre. On plantings less than 6 months old, use ½ of the above rate. To control quackgrass, apply 4 qts. per acre in the fall or split the application applying 2 qts. per acre in the fall and 2 qts. per acre in the spring, when quackgrass is actively growing. Do not apply when fruit is present or illegal residues may result.

**CRANBERRIES (Massachusetts):** Apply up to 4 qts. per acre either before spring growth begins or in the fall after harvest. Other areas: Apply 2 qts. per acre before spring growth begins.

**FILBERTS (Oregon and Washington only):** Apply 2-4 qts. per acre in the fall or apply a split application of 2 qts. per acre in the fall plus 2 qts. per acre in the spring. If trees are planted on a hillside, excessive soil erosion may result from the elimination of weeds. Do not use on sandy soil. Do not apply when nuts are on the ground during the harvest period or illegal residues may result.

**GRAPES:** Apply 2-8 qts. per acre any time between harvest and early spring. Do not use in vineyards established less than three years, or crop injury may result.

**GRAPEFRUIT, LEMONS, ORANGES (Arizona--Lemons and Oranges only):** Apply a split application of 1.6 qts. per acre in the spring plus 1.6 qts. per acre in the fall.

California: Apply 2-4 qts. per acre in a single application; or apply 2 qts. per acre in the fall and 2 qts. per acre in the spring. Do not use in the Imperial, Coachella, or Palo Verde Valleys, or crop injury may occur.

Florida (Grapefruit and oranges only): Apply once per year. For control of weeds listed under GENERAL INFORMATION, apply 6.4-9.6 qts. per acre in the spring; to control milkweed vine, use 8-9.6 qts. per acre either preemergence or before vines are 12 inches tall.

Texas (Grapefruit and Oranges only): Apply 4-4.8 qts. per acre.

Precautions (All Areas): 1) Do not use in nurseries. 2) Do not apply to bedded grapefruit, lemons, or oranges. 3) To avoid possible injury, do not apply to trees under stress from freeze damage for one year after the freeze.

**MACADAMIA NUTS:** Apply 2-4 qts. in 50 gals. of water per acre before harvest and just prior to weed emergence. Repeat applications as necessary. Do not apply when nuts are on the ground during the harvest period, as illegal residues may result.

**OLIVES:** Apply 2-4 qts. per acre following grove preparation in the fall. Repeat annually in midwinter.

**PEACHES, PLUMS, SWEET CHEFRIES:** Apply 2-4 qts. per acre. Apply in late fall to early spring prior to weed emergence. Do not apply to sand or gravelly soil. For peaches, use only in Arkansas, Louisiana, Missouri, Oklahoma, Texas and the states east of the Mississippi River. For plums and sweet cherries, use only in Missouri and states east of the Mississippi River except Tennessee.

**STRAWBERRIES (Oregon and Washington):** For control of chickweed, groundsel, mustard, and shepherdspurse, apply broadcast 1 qt. per acre. In fields where overhead irrigation is used to activate this product, apply after harvest at time of bed renovation. In fields where overhead irrigation is not available, apply during early October through November. To avoid crop injury, make only 1 application per growing season. Do not apply within 4 months after transplanting.

**WALNUTS:** Apply 2-4 qts. per acre. Do not apply to sandy soil. Leveling and furrowing operations after application will lessen effectiveness of weed control. Do not apply when nuts are on the ground or illegal residues may result.

**SIMAZINE 4L PLUS GRAMOXONE SUPER\* TANK MIX COMBINATION FOR WEED CONTROL IN APPLES, PEACHES, AND PEARS**

SIMAZINE 4L plus Gramoxone Super\* tank mix combinations are effective in apple, peach and pear orchards for killing existing vegetation and for residual control of the annual broadleaf and grass weeds listed under General Information. This combination is also effective for top kill and suppression of perennial weeds. Apply the rates shown in the following table as a tank mix in 50-200 gals. of water per acre to the orchard floor avoiding contact with fruit, foliage or stems. Apply when the weeds and grasses are succulent and the new growth is from 1-6 inches tall. Since SIMAZINE enters weeds mainly through their roots, rainfall or irrigation is needed to move it into the root zone.

Crop	Broadcast* SIMAZINE 4L	Rate Per Acre Gramoxone Super*
Apples, Pears	2-4 qts.	1-2 qts.
Peaches**	1.6-4 qts.	1-2 qts.

\*For band applications or spot applications around trees, reduce the broadcast rate and the amount of water in proportion to the area actually sprayed.

\*\*Do not apply to peaches on sandy or gravelly soil. Use on peaches only in Arkansas, Louisiana, Missouri, Oklahoma, Texas and states east of the Mississippi River. In the table above, use the low rate on coarse-textured soil and low organic matter soil. Use the high rate on fine textured soil and high organic matter soil. Make only one application per year. Make applications only in orchards or groves where trees have been established one year or more. Do not spray under windy conditions and use a shield for young trees. Do not allow animals to graze treated areas.

**SIMAZINE 4L PLUS GRAMOXONE SUPER\* TANK MIX COMBINATION FOR WEED CONTROL IN ALMONDS**

SIMAZINE 4L plus Gramoxone Super\* tank mix combinations are effective on almonds for killing existing vegetation and for residual control of the annual broadleaf and grass weeds listed under General Information. This combination is also effective for top kill and suppression of perennial weeds. Apply the rate shown in the following table as a tank mix in 50-200 gals. of water per acre to the orchard floor avoiding contact with nuts, foliage or stems. Apply when the weeds and grasses are succulent and the new growth is from 1-6 inches tall. Since SIMAZINE 4L enters weeds mainly through their roots, rainfall or irrigation is needed to move it into the root zone.

**ALMONDS:** For use in California only.

Crop	Broadcast SIMAZINE 4L	Rate per acre Gramoxone Super *
Almonds*	1-2 qts.	1-2 qts.

\* Do not apply to almonds when nuts are on the ground during the harvest period. Do not treat trees established in the grove less than 3 years. Do not treat Mission variety almonds. Do not apply to almond trees propagated on plum rootstocks. Do not replant almonds in treated soil. Do not apply on gravelly, sand or loamy soil or on soil with less than 1% organic matter. Do not treat areas where water will accumulate.

**PECANS:** Apply the rate in the following table before weeds emerge in the spring.

Soil Texture	Rate per acre
Sandy, loamy sand	Do not use
Loam or clay soil low in organic matter	2-3 qts.
Clay soil high in organic matter	3 qts. - 1 gal.

Do not use west of the Pecos River in Texas or in New Mexico, Arizona or California. Do not make applications to transplanted trees that have been established less than two years in the grove as injury may occur. Do not apply when nuts are on the ground or illegal residues may result. Do not allow animals to graze treated areas.

#### FIELD CROPS

**CORN:** Nitrogen solutions or complete liquid fertilizers may replace all or part of the water as a carrier for Simazine 4L. Do not apply after corn has emerged as there is danger of liquid fertilizers causing crop injury. Preemergence: Apply before weeds and corn emerge. Use the appropriate rate in the table below. Preplant: Apply in the spring after plowing at the appropriate rate in the table below. Apply before, during or after final seed-bed preparation. If soil is tilled or worked after application, avoid deep incorporation of SIMAZINE 4L. Best results will be obtained when SIMAZINE 4L is applied within 2 weeks before planting. Under dry weather conditions, preplant applications may give better weed control.

Soil Texture	Broadcast rate per acre
Coarse-textured soil: Sand, silt, and loam that is low in organic matter	2 qts.
Medium-textured soil: Soil containing a moderate amount of clay and organic matter	2.4 qts.
Fine-textured soil: Loam that is high in organic matter and clay (including dark prairie soils of Corn Belt)	3 qts.
Organic soil: Peat, muck and high organic clay	4 qts.

To control quackgrass: Apply 3-4 qts. per acre in the fall. Plow two to three weeks later, or if erosion is a problem, delay plowing until spring. Do not plant any crop except corn in the spring following treatment. Do not graze treated areas. If weeds develop, particularly under relatively dry conditions, a shallow cultivation will generally result in better weed control.

Precautions: 1) Do not apply more than 4 qts. of SIMAZINE 4L to corn in any one year. 2) Land treated with SIMAZINE 4L should not be planted to any crop except corn until the following year as injury may occur. 3) After harvest of a treated crop, plow and thoroughly till the soil in fall or spring to minimize possible injury to spring-seeded rotational crop, regardless of the rate used. 4) If more than 3 qts. of SIMAZINE 4L is used per acre (or equivalent rate in a band), a crop of untreated corn should precede the next rotational crop. 5) Do not apply SIMAZINE 4L preplant incorporated in corn in the High Plains and intermountain areas of the West (including central and western Kansas, western Nebraska, western Oklahoma, and the panhandle of Texas) where rainfall is sparse and erratic or where irrigation is required. 6) In the High Plains and intermountain areas of the West where rainfall is sparse and erratic or where irrigation is required, use SIMAZINE 4L to control weeds in corn only when corn is to follow corn, or a crop of untreated corn is to precede another rotational crop. 7) In western Minnesota and eastern parts of the Dakotas, Nebraska, and Kansas, do not plant soybeans following corn treated with SIMAZINE 4L if more than 2 qts. of SIMAZINE 4L per acre (or equivalent rate in a band) were applied, as injury may occur. 8) Do not plant sugar beets, tobacco, vegetables (including dry beans), spring-seeded small grains, or small seeded legumes and grasses the year after SIMAZINE 4L application, as injury may occur.

**SIMAZINE 4L PLUS ATRAZINE 4L TANK MIX COMBINATION FOR WEED CONTROL IN CORN:** The tank mix combination of SIMAZINE 4L plus ATRAZINE 4L may be applied either before, during or after planting corn but before weeds emerge to control early germinating annual weeds and late competing grasses. One application will control most annual broadleaf and grass weeds including fall panicum, crabgrass, barnyardgrass, foxtail, velvetleaf, carpetweed, morningglory, lambsquarters, pigweed and ragweed. Preplant Application: Apply the tank mixture as broadcast treatment in

the spring after plowing earlier before, during or after final seedbed preparation. If soil is tilled or worked after application, avoid deep incorporation of SIMAZINE 4L plus ATRAZINE 4L. Best results will be obtained when the tank mix is applied within two weeks before planting. Preemergence Application: Apply the tank mixture during or shortly after planting but prior to crop and weed emergence.

Soil	Preplant and preemergence broadcast rate in 10-40 gals. of water per acre	
	SIMAZINE 4L	ATRAZINE 4L
Coarse textured soil: Sand, loamy sand, sandy loam	1 qt.	1 qt.
Medium textured soil: Silt loam and clay loam low in organic matter	1.2 qts.	1.2 qts.
Fine textured soil: Silt loam and clay loam with medium to high organic matter and clay (including dark prairie soils of the Corn Belt)	1.5 qts.	1.5 qts.

**SUGARCANE:** Apply 2-4 qts. per acre at planting or after harvest if ratoon crop is to be grown, but before weeds or sugarcane emerge. SIMAZINE 4L may also be applied interline-directed or over the sugarcane to provide continuing control of germinating weeds. Do not apply more than one 2-4 qts. application over the plants or more than two interline-directed applications. Do not apply after "close-in". Total applications should not exceed 10 qts. per acre crop cycle. Do not feed or graze treated foliage to livestock.

#### NURSERIES, CHRISTMAS TREE PLANTINGS AND SHELTER BELTS

**NURSERIES** (See list below): Apply 2-3 qts. in at least 25 gals. water per acre in fall or spring at least one year after transplanting.

**CHRISTMAS TREE PLANTINGS AND SHELTER BELTS** (See list below): Remove weed growth before application. Apply 2-4 qts. in at least 25 gals. of water per acre after transplanting. Use the same rate for annual maintenance applications. For quackgrass control apply 4 qts. per acre in the fall or apply a split application of 2 qts. per acre in the fall plus 2 qts. per acre in early spring after quackgrass begins growth. In California, Oregon, and Washington do not apply to Christmas trees or shelterbelts sooner than one year after transplanting. Do not use SIMAZINE 4L on seedbeds or cutting beds. Do not apply to Christmas tree or shelter belt transplants less than three years of age. Do not apply more than once a year, except as directed for quackgrass control.

Apply SIMAZINE 4L to these species of trees and shrubs, as recommended above:

American elm	lodgepole pine (shore pine)
Austrian pine	Monterey pine*
arborvitae	Mugho pine
balsam fir	Norway spruce
barberry	oleander*
Bishop pine*	Oregon grape (Mahonia spp.)
blue spruce	palm* (2 qts./A)
bottle brush*	Pieris spp. (max. 3.2 qts./A)
boxelder	red cedar
bush honeysuckle	Scotch pine
caragna	Siberian elm
carob*	red spruce
cotoneaster	Russian olive
dogwood	red oak
Douglas fir	red pine (Norway pine)
eucalyptus	white cedar
Fraser fir	white fir
hemlock	white pine
holly (Ilex spp.)	white spruce
honey locust	yew (Taxus spp.)
juniper	
knobcane pine*	

\*For California only

#### TURF GRASSES FOR SOD (FLORIDA ONLY)

St. Augustine, Centipede, and Zoysia Grass: Apply 2-4 qts. per acre according to soil texture as indicated below.

Muck or peat	4 qts.	Old beds: within 2 days after lifting of sod
		New beds: 3-4 days after sprigging or plugging
Sandy soil	2 qts.	Old beds: within 2 days after lifting of sod
		New beds: 7-10 days after sprigging or plugging

Apply an additional 2 qts. on muck or peat, or 1 qt. on sandy soil if weed growth recurs.

Precautions: To avoid crop injury, (1) Do not apply within 30 days prior to cutting or lifting. (2) Do not apply in combination with surfactants or other spray additives. (3) Use only on turfgrass reasonably free of infestations of insects, nematodes, and diseases. (4) On newly sprigged turfgrass, temporary slowing of growth may follow

application.

**TURFGRASS FOR FAIRWAYS, LAWNS, SOD PRODUCTION\*, AND SIMILAR AREAS**  
 \*In states other than Florida. For use on turfgrass for sod in Florida, see "Turfgrass for Sod (Florida only)" section above.

**Bermudagrass, Centipedegrass, St. Augustinegrass, and Zoysia Grass**

Apply Simazine 4L after September 1 (after October 1 for annual bluegrass) before emergence of winter annual weeds. Simazine 4L will control annual bluegrass, burclover, lawn burweed, common and mouseear chickweed, corn speedwell, henbit, hop clover, spurweed, and parsley-piert. Simazine 4L will also control these weeds soon after emergence. For control of summer annual weeds listed in the General Information section of this label, apply Simazine 4L in late winter before the weeds emerge. Apply in a minimum of 15 gallons of water per acre.

Irrigate with  $\frac{1}{2}$  inch of water if rainfall does not occur within 10 days after preemergence treatment.

Where annual bluegrass is the major weed, use 1 qt./A (22 ml or 0.75 fl. oz. per 1,000 sq. ft.). Use 2 qts./A (22-44 ml or 0.75-1.5 fl. oz. per 1,000 sq. ft.) for control of other weeds. However, do not exceed 1 qt./A per treatment on newly sprigged turfgrass or on hybrid bermudagrass such as Tiflawn, Tifway, and Ormond.

For control of summer annuals which emerge after the initial application, apply an additional 1 qt./A at least 30 days after the initial application, but not after June 1. However, do not make more than two applications per year.

**Precautions:** On newly sprigged turfgrass, hybrid bermudagrass, nondormant bermudagrass, or nondormant zoysia grass, temporary slowing of growth and yellowing may occur following application. To avoid turf injury, (1) Use only on turfgrass reasonably free of infestations of insects, nematodes, and diseases. (2) Do not use on golf greens. (3) Do not use north of NC (except may be used in the Virginia Coastal Plains) or west of Highway 281 in Texas and Oklahoma. (4) Do not use on muck or alkaline soils. (5) Do not apply over the rooting area of trees or ornamentals not listed on this label. (6) Do not seed or overseed with desirable turfgrass within 4 months before or 6 months after treatment. (7) Do not apply this product on newly seeded grasses until they have overwintered and have a well-developed rhizome system. (8) Do not exceed 2 qts. product/A within 12 months of seeding grasses.

**Note:** Do not graze or feed turf clippings to animals or illegal residues may result.

#### VEGETABLE CROPS

**ASPARAGUS (Established):** Apply 2-4 qts. per acre to beds established one year or more. Apply once per year either after disking in the spring before weeds emerge, or following harvest after removal of existing weed growth. Spring application must be made at least three days before first cutting. In Washington and Oregon only, do not use on sand, loamy sand, or gravelly areas of fields as crop injury may occur. Do not allow irrigation water to stand or to form pools in the field as injury may occur.



**ARTICHOKES:** Apply 2-4 qts. per acre as directed spray after the last fall tillage. Do not apply to sandy soil. Apply only once per year.

#### **NONSELECTIVE WEED CONTROL ON NONCROPLAND**

Do not use this product for nonselective weed control on land to be cropped or on adjacent desirable trees, shrubs, or plants or in greenhouses, as injury may occur. Best results are obtained when SIMAZINE 4L is applied before weeds emerge. If weed growth has begun and removal is not feasible, include a contact or translocation herbicide in the spray. SIMAZINE 4L can be used to provide long-term weed control on industrial sites, highway medians and shoulders, railroad rights-of-way, parking yards, petroleum tank farms, and in noncrop areas of farms, such as around buildings, equipment and fuel storage areas, along fences, roadsides and lanes. Multiple applications may be made where it is feasible. Use at least 1 gallon of water for 25.6 oz. of Simazine 4L; use more water if practical for both ground and aerial applications. To control annual broadleaf and grass weeds (including barnyard grass, cheat, crabgrass, lambsquarters, foxtail, ragweed, puncturevine, and turkey mallow), apply 4.8-10 qts. per acre. To control most annual and perennial broadleaf and grass weeds (including quackgrass, bluegrass, redtop, burdock, Canada thistle, orchard grass, purpletop, smooth brome, dogfennel, and plantain), apply 2.5-4.4 gallons per acre. To control hard-to-kill perennial weeds (including bullthistle and sowthistle), apply 4.4 gallons per acre. For residual control in regions of high rainfall and long growing season, apply 4.4 gallons per acre.

**NOTICE:** Seller warrants that the product conforms to its chemical description and is reasonably fit for the purposes stated on the label when used in accordance with the directions under normal conditions of use, but neither this warranty nor any other warranty of merchantability or fitness for a particular purpose, express or implied, extends to the use of this product contrary to label instructions, or under abnormal conditions, or under conditions not reasonably foreseeable to seller, and buyer assumes the risk of any such use.