

pm 23 19713-60

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File



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

Barbara Brown
DREXEL CHEMICAL CO.
BOX 9306
MEMPHIS, TN 38109

MAR 14 1994

OFFICE OF
PREVENTION, PESTICIDES AND
TOXIC SUBSTANCES

Subject: Label Amendment Submission of 11/22/93 in Response to PR Notice 93-7
EPA Reg. No. 19713-60
DREXEL 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
contains at least 50% recycled fiber

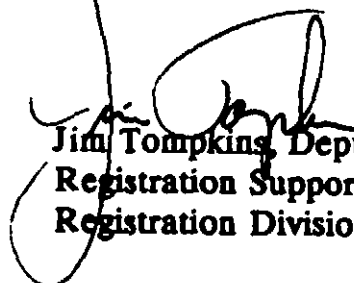
Submit the final printed labeling via the U.S. Postal Service to:

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

BARBARA BROWN
DREXEL CHEMICAL COMPANY

Comments for: EPA REG. NO. 19713-60
DREXEL SIMIZINE

The following specific comments pertain to your WPS labeling submission concerning the product cited above:

You must notify OCM if you shipped any product with the Serious errors.

Delete the crossed out statements on your proposed label. They are redundant statements or phrases.

Correct the typographical errors circled on your proposed label.

SIMAZINE 4L
Preemergence Control Of Many Annual Broadleaf Weeds
And Grasses In Agricultural And Ornamental Crops.

ACTIVE INGREDIENT:

Simazine: 2-chloro-4,6-bis(ethylamine)-
 s-triazine*..... 40.0%

INERT INGREDIENTS:..... 60.0%

TOTAL:..... 100.0%

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

KEEP OUT OF REACH OF CHILDREN
CAUTION

Shake Well Before Using

EPA Reg. No. 19713-273
 EPA Est. No. 19713-MS-1

Manufactured By:
 Drexel Chemical Company
 P.O. Box 9306
 Memphis, TN 38109
 REVISED: 02/94

ACCEPTED
 with COMMENTS
 in EPA Letter Dated

MAR 14 1994

Under the Federal Insecticide,
 Fungicide, and Rodenticide Act
 as amended, for the pesticide
 registered under EPA Reg. No.
19713-273-60

WPS DELETIONS/REVISIONS 10/93

STATEMENT OF PRACTICAL TREATMENT

IF SWALLOWED: Call a physician or Poison Control Center.
 Drink 1 or 2 glasses of water and induce vomiting by
 touching back of throat with finger. Do not induce vomiting
 or give anything by mouth to an unconscious person.
IF SPLASHED IN EYES: Immediately flush eyes with plenty of
 water for at least 15 minutes and get medical attention.
IF SPILLED ON SKIN: immediately-remove-contaminated
 clothing-~~including~~-shoes-and Wash skin with soap and
 plenty of water. If irritation develops, send for a
 physician.

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION: Harmful if swallowed. Avoid breathing of spray, contact with skin and eyes. Wear regular long-sleeved work clothing. Change to clean clothing daily. Wash hands and before eating. Wash thoroughly after handling. Do not apply this product in such a manner as to directly through drift expose workers or other persons. The area be treated must be vacated by unprotected persons.

PERSONAL PROTECTIVE EQUIPMENT

Applicators and other handlers must wear: Long-sleeved shirt and long pants and shoes plus socks.

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

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

USER SAFETY RECOMMENDATIONS

User 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.

ENVIRONMENTAL HAZARDS

Do not apply when weather conditions favor drift from areas treated. 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.

For terrestrial uses, do not apply directly to water or to areas where surface water is present, or to intertidal areas below mean high water mark. Do not contaminate water when disposing of equipment washwaters.

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.

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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 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
- Shoes plus socks
- Waterproof gloves

FARMWORKER-SAFETY-STATEMENTS

Do not enter treated areas without protective clothing until sprays have dried.

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. Written or oral warnings must be given to workers who are expected to be in a treated area or in an area about to be treated with this product. Oral warnings must inform 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 shall be given in a language customarily understood by workers. Written warnings must include the following information: CAUTION--Area treated with simazine on [date of application]. Do not enter without appropriate protective clothing until sprays have dried. In case of accidental exposure, flush eyes or skin with plenty of water. Call physician if irritation persists. Remove and wash contaminated clothing before reuse.

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CHEMIGATION

Apply this product only through sprinkler (including center pivot, lateral move, end tow, side (wheel) roll, traveler, big gun, solid set, or hand move) irrigation systems. Do not apply this product through any other type of irrigation system. Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from nonuniform distribution of treated water.

If you have questions about calibration, you should contact state Extension Service specialists, equipment manufacturers or other experts.

Do not connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system unless the pesticide label-prescribed safety devices for public water systems are in place.

A person knowledgeable of the chemigation system and responsible for its operation, or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.

Public water system means a system for the provision to the public of piped water for human consumption if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days out of the year.

Chemigation systems connected to public water systems must contain a functional, reduced-pressure zone, backflow preventer (RPZ) or the functional equivalent in the water supply line upstream from the point of pesticide introduction. As an option to the RPZ, the water from the public water system should be discharged into a reservoir tank prior to pesticide introduction. There shall be a complete physical break (air gap) between the outlet end of the fill pipe and the top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe.

The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.

The pesticide injection pipeline must contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.

The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops, or in cases where there is no water pump, when the water pressure decreases to the point where pesticide distribution is adversely affected.

Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

Do not apply when wind speed favors drift beyond the area intended for treatment.

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Do not apply when wind speed favors drift beyond the area intended for treatment.

Pre-emergence or Post-emergence:

Apply SIMAZINE 4L alone, or in tank mixtures with other herbicides on this label which are registered for center pivot application, with irrigation water. Apply either after planting before crop and weeds emerge, or after crop emergence, but before lay-by (20-30 inches) and before weeds exceed 1.5 inches in height. Apply at rates recommended on this label. Prepare mixture with minimum of 1 part water to 1 part product.

Injecting a larger volume of a more dilute slurry per hour will assure more accurate calibration of metering equipment. Maintain sufficient agitation to keep herbicide in suspension. Meter slurry into irrigation water during entire period. Apply in 1/2 to 1 inch of water. Use the lower water volume on coarser textured soils, the higher volume on finer textured soils. More than 1 inch water may reduce weed control by moving herbicide below the effective zone in the soil. Inject dilute slurry into system through positive displacement pump.

Precautions:

1. Apply only through irrigation systems containing anti-siphon and check valves to prevent contamination of well during shutdown and overflow of solution.
2. Inject ahead of any right angle turn in the main line to insure adequate mixing.
3. Chemical injection pumps and water pumps must have interlocking controls to insure simultaneous shutoff.
4. Application when drift may occur from windy conditions, when system joints and connections are leaking, or when nozzles are not providing uniform distribution may cause crop injury.
5. Where sprinkler distribution patterns do not overlap sufficiently, unacceptable weed control may result. Where sprinkler distribution patterns overlap excessively, crop injury may result.

GENERAL INFORMATION

SIMAZINE 4L is a herbicide that should be applied before weeds emerge or following removal of weed growth. It controls a wide variety of annual broadleaf and grass weeds when used at selective rates in agricultural and ornamental crops. When used at higher, nonselective rates in noncrop areas, it also controls many perennial broadleaf weeds and grasses. 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.

Simazine Herbicide enters weed mainly through their roots; moisture is needed to move it into the root zone. Very dry soil conditions and lack of rainfall following application may necessitate shallow cultivation, or rotary hoeing. SIMAZINE 4L is noncorrosive to equipment and nonflammable.

Annual Weeds Controlled

alyssum	Flora's paintbrush	ragweed
Amaranthus spp.	Florida pusley	rattail fescue
annual bluegrass	foxtails	redmaids
annual morningglory	goosegrass	russian thistle
annual ryegrass	groundsel	shepherdspurse
barnyardgrass	henbit	shieldcress
Brachiaria spp.	junglerice	silver hairgrass
burclover	knawel	smartweed
carelessweed	lambsquarters	spanishneedles
carpetweed	mustard	speedwell
common chickweed	nightshade	tansymustard
crabgrass	peppergrass	wild mustard
downy brome	pigweed	wild oats
fall panicum	pineapple weed	wiregrass
fiddleneck	prickly lettuce	witchgrass
filaree	purslane	yellow flower
fireweed	*quackgrass	pepperweed
fivehook bassia		

*See specific use directions.

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 under conditions where uniform coverage cannot be obtained or where excessive spray drift may occur. Avoid

~~application-directly-to-animals-or-humans--Although-it-is unnecessary-for-flagmen-or-loaders-to-wear-protective-clothing---equipment-care-should-be-taken-to-avoid-inhalation-of-dust-or spray-mist-or-prolonged-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.

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MIXING INSTRUCTIONS

Mix Simazine 4L with water and apply as a spray. Pour Simazine 4L into the tank during or after filling. Hydraulic(jet) or mechanical agitation is recommended during mixing and application to keep material in suspension. All return lines to the tank must discharge below liquid level and agitation should not be so violent as to cause air bubbles to form in the liquid. Wash sprayer thoroughly after use.

GROUND APPLICATION

Where the amount of water is not specified, apply Simazine 4L in 20-40 gals. of water per acre.

AERIAL APPLICATION

Use a minimum of one gal. of water for each quart of Simazine 4L applied per acre, unless otherwise specified.

BAND TREATMENT

The amount of Simazine 4L needed for band treatment may be calculated by the formula:

<u>band width in inches</u>	X	broadcast rate	=	amount needed
row width in inches		per acre		per acre

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, unless specified differently. Make only one application per year, except as noted otherwise. Recommended rates are based on broadcast treatment. For band applications or spot applications around trees in fruit or nut planting, reduce the broadcast rate of Simazine 4L and water per acre in proportion to the area actually sprayed.

Precaution: Do not apply to sandy soils.

ALMONDS (CA ONLY)

Apply 1-2 qts. of SIMAZINE 4L per treated acre in a 2- to 4-ft. band on each side of the tree row. Apply before weeds emerge in late fall or early winter. Weeds controlled by 1 qt. of Simazine 4L include Burclover, common chickweed, wild mustard, and shepherdspurse. Apply only once each year.

PRECAUTIONS: To avoid crop injury, 1) Do not treat trees established in the grove less than 3 years; 2) Do not treat the Mission (Texas) variety of almonds; 3) Do not apply to almond trees propagated on plum rootstocks; 4) Do not replant almond in treated soil for 12 months after treatment; 5) Do not apply on soil with less than 1% organic matter; 6) Do not treat trees where water will accumulate.

APPLES, PEARS, SOUR CHERRIES

Apply 2-4 qts. per acre.

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AVOCADOS (California only)

Apply 2-4 qts. per acre after final preparation of grove.

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 planting less than 6 months old use the above rates. Do not apply when fruit is present.

QUACKGRASS CONTROL

Apply 4 qts. per acre in the fall or split the application applying 2 qts. per acre in the fall plus 2 qts. per acre in the spring, when quackgrass is actively growing.

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.

Do not apply when nuts are on the ground during the harvest period. Do not use on sandy soil.

Note: If trees are planted on a hillside, excessive soil erosion may result from the elimination of weeds.

GRAPES

Apply 2-4.8 qts. per acre any time between harvest and early spring. Do not use in vineyards established less than three years.

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.

FLORIDA (Grapefruit and Oranges only): (Ridge Areas) Apply only 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. Complete control of milkweed vine may require repeat application over a period of 2-3 years. (Bedded Areas) Apply 3.2 qts. per acre in bedded areas to control balsam apple vine and other weeds. Apply prior to periods of major weed seed germination in soil where moisture conditions are good. Apply only once per year.

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TEXAS (Grapefruit and Oranges only): Apply 4-4.8 qts. per acre. **Note (All Areas):** Do not use in nurseries. Do not apply to bedded grapefruit, lemons or oranges except for Florida grapefruit and oranges. 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 application as necessary. Do not apply when nuts are on the ground during the harvest period.

OLIVES

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

PEACHES, PLUMS, SWEET CHERRIES

Apply 1.6-4 qts. per acre. Apply in late fall to early spring prior to weed emergence.

PEACHES: Use only in Ark., La., Mo., Okla., Tex., and the states east of the Mississippi.

PLUMS AND SWEET CHERRIES: Use only in Mo. and states east of the Mississippi River except Tenn. Do not apply to sandy or gravelly soil.

PECANS

Apply the appropriate rate in the following table before weeds emerge in the spring.

Soil Texture	Rate Per Acre
Sand, loamy sand	DO NOT USE
Sandy loam	4 pts.
Loam or clay soil low in organic matter	4 to 5.6 pts.
Clay soil high in organic matter	5.6 to 8 pts.

Do not use west of the Pecos River in Texas or in New Mex., Ariz., or Ca. Do not make applications to transplanted trees that have been established less than two years in the groves as injury may occur. Do not apply when nuts are on the ground. Do not allow animals to graze treated areas.

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.

Note: Make only one application per growing season. Do not apply within 4 months after transplanting.

WALNUTS

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

SIMAZINE 4L HERBICIDE PLUS PARAQUAT CL TANK MIX COMBINATION

APPLES, PEACHES, PEARS

SIMAZINE 4L plus Paraquat CL tank-mix combination is effective in apple, peach and pear orchards for kill of existing vegetation and for residual control of the annual broadleaf weeds and grasses 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. Add nonionic surfactant at the rate of 5 pts. per 100 gals. Apply when the weeds and grasses are succulent and the new growth is from 1-6 inches tall. 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. Since Simazine enters weeds mainly through their roots, rainfall or irrigation is needed to move into the root zone.

Broadcast* Rate per Acre		
Crop	Simazine 4L	Paraquat CL
Apples	2 to 4 qts.	1 to 2 qts.
Pears	2 to 4 qts.	1 to 2 qts.
Peaches**	1.6 to 4 qts.	1 to 2 qts.

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.

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

**Do not apply to peaches on sandy or gravelly soils. Use on peaches only in Arkansas, Louisiana, Missouri, Oklahoma, Texas, and states east of the Mississippi River.

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FIELD AND FORAGE 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. Use 10-40 gals. of spray mixture per acre. **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 seedbed 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.

Note: Under dry weather conditions, preplant applications may give better weed control than pre-emergence.

Soil Texture	Broadcast* rate per acre
Coarse textured soil: Sand silt, and loam that is low in organic matter.	4 pts.
Medium texture soil: Soil containing a moderate amount of clay and organic matter	4.8 pts.
Fine textured soil: Loam that is high in organic matter and clay (including dark prairie soils of Corn Belt)	6 pts.
Organic soil: Peat, muck, and high-organic clay	8 pts.

QUACKGRASS CONTROL

Broadcast 6-8 pts. 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 area. If weeds develop, particularly under relatively dry conditions, a shallow cultivation will generally result in better weed control.

Note:

1. Do not apply more than 8 pts. of Simazine 4L per acre to corn in any one year.
2. Land treated with Simazine 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 crops, regardless of rate used.
4. If more than 6 pts. of Simazine 4L is used per acre (or equivalent rate in a band), a crop of untreated corn should precede the next rotational crop.

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5. Do not apply Simazine 4L preplant incorporated for weed control 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 rotate to soybeans following corn treated with Simazine if more than 4 pints of Simazine 4L per acre (or equivalent rate in a band) was 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: Apply the tank-mix combination of SIMAZINE 4L plus Atrazine 4L 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. Apply in 10-40 gals. of water per acre.

PREPLANT: Apply the tank mixture as a broadcast treatment in the spring after plowing either 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 2 weeks before planting.

PREEMERGENCE: Apply the tank mixture during or shortly after planting but prior to crop and weed emergence.

**PRE-PLANT AND PRE-EMERGENCE
BROADCAST* RATES PER ACRE**

Soil Texture	Simazine 4L	Atrazine 4L
Sand, loamy sand, sandy loam	2 pts.	2 pts.
Silt loam and clay loam low in organic matter	2.4 pts.	2.4 pts.
Silt loam and clay loam with medium to high organic matter and clay (including dark prairie soils of the Corn Belt)	3 pts.	3 pts.

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*For Calculation of pre-emergence band treatment rate see Information Section.

Note:

1. If weeds develop, a shallow cultivation will generally result in better weed control.
2. Following harvest of the treated crop, plow (moldboard or disk-plow) and thoroughly till the soil in fall or spring to minimize possible injury to spring-seed rotational crops, regardless of the rate used.
3. Do not plant any crop except corn until the following year, as injury may occur.
4. Do not plant sugar beets, tobacco, vegetables (including dry beans), spring-seeded small grains, or small-seeded legumes and grasses the year following application or injury may occur.

Refer to the Atrazine 4L label for further directions, limitations and cautions.

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 over the sugarcane to provide continuing control of germinating weeds.

Note:

1. Do not apply more than one 2-4 pts. application over the plants or more than two interline-directed applications.
2. Do not apply after "close-in."
3. Total application should not exceed 10 qts. per acre rop cycle.

Do not feed or graze treated forage to livestock.

NURSERIES, CHRISTMAS TREE PLANTINGS, SHELTER BELTS

NURSERIES (see list below)

Apply 4-6 pts. in at least 25 gals. of 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.

QUACKGRASS CONTROL:

Apply 8 pts. per acre in the fall or apply a split application of 4 pts. per acre in the fall and 4 pts. per acre in early spring, after quackgrass begins growth.

Caution:

1. Do not use Simazine on seedbeds or cutting beds.
2. Do not apply to Christmas tree or shelter belt transplants less than three years of age.
3. Do not apply more than once a year, except as directed for quackgrass control.

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Apply Simazine 4L to these species of trees and shrubs, (as recommended above.)

American elm	caragana	Mugho pine	red spruce
Austrian pine	cotoneaster	Norway spruce	Russian olive
aborvitae	dogwood	Oregon grape	Scotch pine
balsam fir	Douglas fir	(Mahania spp.)	Siberian elm
barberry	Fraser fir	red cedar	white cedar
blue spruce	hemlock	red oak	white pine
boxelder	honey locust	red pine	white spruce
bush honeysuckle	juniper	(Norway pine)	yew (Taxus spp)

TURF GRASSES FOR SOD

ST. AUGUSTINE, CENTIPEDE, ZOYSIA GRASS:

Apply 2-4 qts. per acre, according to soil texture as indicated below.

Soil Texture	Rate Per Acre	Old Beds	New Beds
Muck or Peat	4 qts.	within 2 days after lifting of sod	3-4 days after sprigging or plugging
Sandy soil	2 qts.	within 2 days after lifting of sod	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.

CAUTION

1. Do not apply within 30 days before cutting or lifting.
2. Do not use north of North Carolina.

TURFGRASS FOR FAIRWAYS, LAWNS, SOD PRODUCTION* AND SIMILAR AREAS

*In states other than Florida

Bermudagrass, Centipedegrass, St Augustinegrass, and Zoysia Grass
Apply after October 1 prior to emergence of winter annual weeds for control of bluegrass, burclover, carpet burweed, chickweed, corn speedwell, henbit, hop clover, and spurweed. Simazine 4L will control annual bluegrass even if it is emerged at the time of treatment. For control of summer annual weeds listed in the General Information portion of this label, also apply Simazine 4L in late winter before weeds emerge. Apply in a minimum of 15 gallons of water per acre or 1 gallon per 1,000 sq. ft. Where annual bluegrass is the major weed, use 1 qt. per acre (22 ml or 0.75 fl. oz. per 1,000 sq. ft.). Use 2 qts. per acre (44 ml or 1.5 fl. oz. per 1,000 sq. ft.) for control of other weeds named above. Do not exceed 1 qt. per treatment on newly sprigged turfgrass or on hybrid bermudagrass such as Tiflawn, Tifway, and Ormond.

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For continued summer annual weed control, apply another 1 qt. per acre at least 3 days after the previous application, but not after April 15. Do not make more than two applications per year. Note: On newly sprigged turfgrass and hybrid bermudagrass, temporary slowing of growth and yellowing may occur following application. Use only on turfgrass reasonably free of infestation of insects, nematodes, and diseases. Do not use on golf greens. Do not use north of North Carolina (except may be used in Virginia Coastal Plains) or west of the high rainfall areas of eastern Oklahoma and eastern Texas. Do not use on muck or alkaline soils. Do not apply over the rooting area of trees or ornamentals not listed on this label. Do not over seed with desirable turfgrass within 4 months before or 6 months after treatment. Do not apply to newly seeded bermudagrass until it has overwintered and has a well-developed rhizome system. Do not exceed 2 qts./A within 12 months of seeding bermudagrass.

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 3 days before first cutting.

CAUTION: (Washington and Oregon only)

1. Do not use on sand, loamy sand, or gravelly areas on fields; crop injury may result.
2. Do not allow irrigation water to stand or to form pools in the fields, as injury may occur.

ARTICHOKES: Apply 2-4 qts. per acre as a directed spray after the last fall tillage.

CAUTION:

1. Do not apply to sandy soil.
2. Apply only once per year.

NONSELECTIVE WEED CONTROL ON NONCROP LAND

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 translocated 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, limberyards, petroleum tank farms, and in noncrop areas on farms, such as around buildings, equipment and fuel storage areas, along fences, roadsides, and lanes. Aerial applications may be made where it is feasible.

Use at least 1 gal. of water for each 1 qt. of Simazine 4L; use more water if practical for both ground and aerial applications.

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TO CONTROL ANNUAL BROADLEAF AND GRASS WEEDS (including barnyardgrass, cheat, crabgrass, lambsquarters, foxtail, ragweed, puncturevine, and turkey mullein): Apply 4.8 to 10 qts. per acre.

TO CONTROL MOST ANNUAL AND MANY PERENNIAL BROADLEAF AND GRASS WEEDS (including quackgrass, bluegrass, redtop, burdock, Canada thistle, orchardgrass, purple top, smooth brome, dogfennel, and plantain): Apply 2.5 to 5 gals. per acre.

TO CONTROL HARD-TO-KILL PERENNIAL WEEDS (including bull thistle and sow thistle): Apply 5 to 10 gals. per acre.

For longer residual control in regions of high rainfall and a long growing season, apply 5 to 10 gals. per acre.

STORAGE AND DISPOSAL

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

STORAGE INSTRUCTIONS:

Storage should be under lock and key and secure from access by unauthorized persons and children. Storage should be in a cool dry area away from any heat or ignition source. Do not stack over 2 pallets high. Move containers by handles or in cases. Do not move containers from one area to another unless they are securely sealed. Keep container tightly sealed when not in use. Keep away from any puncture source. Avoid storage near water supplies, food, feed and fertilizer to avoid cross contamination. Store in original containers only. If the contents are leaking or material is spilled, follow these steps:

1. Contain spill, absorb with a material such as a saw dust, clay granules or dirt.
2. Collect and place in suitable containers for disposal.
3. Wash area with water and soap to remove remaining pesticide.
4. Follow washing with clean water rinse.
5. Do not allow run-off to enter sewer or contaminate water supplies.
6. Dispose of wastes as indicated below:

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: METAL: Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities. **PLASTIC:** 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, stay out of smoke.

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WARRANTY-CONDITION OF SALE:

OUR RECOMMENDATIONS FOR USE of this product are based upon test believed reliable. Follow directions carefully. Timing and method of application, weather and crop conditions, mixtures with other chemicals not specifically recommended, and other influencing factors in the use of this product are beyond the control of the seller. Buyer assumes all risks of use, storage and handling of this material not in strict accordance with directions given herewith. In no case shall Drexel or the Seller be liable for consequential, special or indirect damages resulting from the use or handling of this product when such use and/or handling is not in strict accordance with directions given herewith. The foregoing is a condition of sale by Drexel Chemical and is accepted as such by the Buyer.

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