

US ENVIRONMENTAL PROTECTION AGENCY OFFICE OF PESTICIDES PROGRAMS REGISTRATION DIVISION (TS-767) WASHINGTON, DC 20460	EPA REGISTRATION NO. 19713-252	DATE OF ISSUANCE NOV 20 1989
NOTICE OF PESTICIDE: <input checked="" type="checkbox"/> REGISTRATION <input type="checkbox"/> REREGISTRATION <i>(Under the Federal Insecticide, Fungicide and Rodenticide Act as amended)</i>	TERM OF ISSUANCE Conditional	
NAME OF PESTICIDE PRODUCT ...		
NAME AND ADDRESS OF REGISTRANT (Include ZIP code) 		
<p>NOTE: Changes in labeling formula differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Registration Division prior to use of the label in commerce. In any correspondence on this product always refer to the above U.S. EPA registration number.</p> <p>On the basis of information furnished by the registrant, the above named pesticide is hereby Registered/Reregistered under the Federal Insecticide, Fungicide, and Rodenticide Act.</p> <p>A copy of the labeling accepted in connection with this Registration/Reregistration is returned herewith.</p> <p>Registration is in no way to be construed as an indorsement or approval of this product by this Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.</p> <p>1. The product is a ...</p> <p>2. The product is a ...</p> <p>3. As a result of ...</p> <p>4. The product is a ...</p>		
<div style="border: 2px solid black; padding: 10px; display: inline-block;"> BEST AVAILABLE COPY </div>		
<input type="checkbox"/> ATTACHMENT IS APPLICABLE		
SIGNATURE OF APPROVING OFFICIAL <i>Joanne W. Miller</i>		DATE 11/20/89

EPA Form 8570-6 (Rev. 5-76)

PREVIOUS EDITION MAY BE USED UNTIL SUPPLY IS EXHAUSTED.

52597:1:CR-30:Ikeda:LMF-14:KENCO:11/17/89:01/03/90:DD:SW:VO:EK:DD:EK:DG

-2-

If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6(e). Your release for shipment of the product constitutes acceptance of these conditions.

A stamped copy of the label is enclosed for your records.

Joanne I. Miller
Acting Product Manager (23)
Fungicide-Herbicide Branch
Registration Division (H7505C)

Enclosure

SIMAZINE 90DF

Herbicide

For weed control in certain crops, ornamental plantings, on industrial sites, and around-the-farm

Active Ingredient:
Simazine: 2-chloro-4,6-bis (ethylamino)-
s-triazine 90%
Inert Ingredients: 10%
Total: 100%

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SIMAZINE 90DF is a water dispersible granule

Keep Out of Reach of Children.

Caution

See additional precautionary statements at end of booklet.

See directions for use inside booklet.

ACCEPTED
COMMENTS
in EPA Letter Dated:

NOV 20 1989

EPA Reg. Number 19713-MS-1
EPA Est. Number 19713-MS-1

DIRECTIONS FOR USE AND CONDITIONS OF SALE AND WARRANTY

IMPORTANT: Read the entire Directions for Use and the Conditions of Sale and Warranty before using this product

Conditions of Sale and Warranty

OUR RECOMMENDATIONS FOR USE of this product are based upon tests 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 Company and is accepted as such by the Buyer.



Manufactured by
Drexel Chemical Company
P.O. Box 9306 Memphis Tenn 38109 0306 U.S.A.

DIRECTIONS FOR USE

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

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 through any type of irrigation system.

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.

Reentry Statement

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

Because certain states may require more restrictive reentry 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. Oral warnings must be given if there is reason to believe that written warnings cannot be understood by workers. Written warnings must include the following information: "CAUTION. Area treated with SIMAZINE 90DF 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."

General Information

Apply this herbicide before weeds emerge or after removal of weed growth. SIMAZINE controls a wide variety of annual broadleaf and grass weeds when used at selective rates in agricultural crops and ornamental plantings. When used at higher nonselective rates in noncrop areas, it also controls many perennial broadleaf and grass weeds.

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.

Since this product enters weeds primarily 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.

This product is noncorrosive to equipment, nonflammable, and has low electrical conductivity.

Annual Weeds Controlled

allysum	livehook bassia	ragweed
annual bluegrass	Flora's paintbrush	raffail fescue
annual morningglory	Florida pusley	redmaids
annual ryegrass	fox tails	Russian thistle
barnyardgrass	goosegrass	shepherdspurse
(watergrass)	groundsel	signposts
burclover	henbit	(Bracharia spp.)
carelessweed	junclerick	silver halgrass
carpetweed	knawel	smartweed
common chickweed	(German fluss)	spartanredies
crabgrass	common	speedwell
(Digitaria spp.)	lambquarters	tensymustard
downy brome	nightsicle	wild mustard
(cheatgrass)	pepperweed	wild oats
fall panicum	pigweed	witchgrass
holleneck	pineappleweed	yellow flower
klaree	prickly lettuce	pepperweed
fireweed	common purslane	

Following many years of continuous use of this product 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.

Application Procedures

Ground application: Use conventional ground sprayers equipped with nozzles that provide accurate and uniform application. Be certain that nozzles are uniformly spaced and the same size. Calibrate sprayer before use and recalibrate at the start of each season and when changing carriers. Unless otherwise specified, use a minimum of 20 gals. of spray mixture per acre.

Use a pump with capacity to (1) maintain 35-40 psi at nozzles, (2) provide sufficient agitation in tank to keep mixture in suspension, and (3) to provide a minimum of 20% bypass at all times. Use centrifugal pumps which provide propeller shear action for dispersing and mixing this product. The pump should provide a minimum of 10 gals./minute/100 gal. tank size circulated through a correctly positioned sparger tube or jets.

Use screens to protect the pump and to prevent nozzles from clogging. Screens placed on suction side of pump should be 16-mesh or coarser. Do not place a screen in the recirculation line. Use 50-mesh or coarser screens between the pump and boom, and where required, at the nozzles. Check nozzle manufacturer's recommendations.

For band applications, calculate amount to be applied per acre as follows:

$$\frac{\text{band width in inches}}{\text{row width in inches}} \times \text{broadcast rate per acre} = \text{amount needed per acre of field}$$

Aerial application: Use aerial application only where specified in the use directions. Apply in a minimum of 1 gal. of water for each 1-1.5 lbs. of herbicide applied per acre. Avoid application under conditions where uniform coverage cannot be obtained or where excessive spray drift may occur.

Avoid application to animals or humans. Flagmen and loaders should avoid inhalation of spray mist and prolonged contact with skin, and should wash thoroughly before eating and at the end of each day's operation.

Mixing procedures—all uses: (1) Be sure sprayer is clean and not contaminated with any other materials, or crop injury or sprayer clogging may result. (2) Fill tank 1/4 full with clean water, nitrogen solution or complete fluid fertilizer. (3) Start agitation. (4) Be certain that the agitation system is working properly and creates a rippling or rolling action on the liquid surface. (5) Pour product directly from bag into tank. (6) Continue filling tank until 90% full. Increase agitation if necessary to maintain surface action. (7) Add tank mix herbicide(s) after this product is thoroughly suspended. (8) Finish filling tank. Maintain agitation to avoid separation of materials. (9) Empty tank as completely as possible before refilling to prevent buildup of emulsifiable concentrate residue from possible tank mix herbicides. (10) If an emulsifiable concentrate film starts to build up in tank, drain it and clean with strong detergent solution or solvent. (11) Clean sprayer thoroughly immediately after use by flushing system with water containing a detergent.

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 alfalfa and 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 1/4 tsp. of a compatibility agent approved for this use (1/4 tsp. is equivalent to 2 pts. per 100 gals. spray). Cap and shake until mixed.
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 gals. 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 teaspoon to each jar.

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

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

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 1/2 of the compatibility agent to the fertilizer and the other 1/2 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.

Rotational Crops and Perennial Crop Replanting

To avoid crop injury, observe the following precautions: (1) If rotating treated land the year following application, plant only corn, unless otherwise stated in this label. (2) If replanting perennial crops or if rotating land to crops other than corn, do not apply this product in the year preceding planting these crops.

Fruit and Nut Crops

Apply the spray to the orchard or vineyard floor avoiding contact with fruit, foliage, or stems. Recommended rates are based on broadcast treatment. For band applications or spot applications around fruit or nut trees, reduce the broadcast rate of this product and water per acre in proportion to the area actually sprayed.

Precautions (All fruit and nut crops): To avoid crop injury, (1) Apply only to orchards or groves where trees have been established 12 months or more unless specified differently. (2) Make only one application per year, except as noted otherwise. (3) Do not use on gravelly, sandy, or loamy sand soil. (4) Immediately following application, limit overhead sprinkler irrigation to 1/2 inch.

Almonds and Peaches (CA only)

Apply 1-2 lbs. per treated acre in a 2-4 ft band on each side of the tree row. Apply before weeds emerge in late fall or early winter. Weeds controlled by 1 lb. include burclover, common chickweed, wild mustard, and shepherds-purse. Apply only once per 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 almonds or peaches in treated soil for 12 months after treatment. (5) Do not apply on soil with less than 1% organic matter. (6) Do not treat areas where water will accumulate.

Apples, Pears, Sour Cherries

Apply 2-4 lbs. per acre.

Avocados

CA and FL only. Apply 2-4 lbs. per acre after final preparation of grove.

Blueberries and Caneberries (blackberries, boysenberries, loganberries, raspberries)

Apply 2-4 lbs. per acre in the spring or apply a split application of 2 lbs. per acre in the spring plus 2 lbs. per acre in the fall. Apply in a minimum of 40 gals. of water per acre.

On plantings less than 6 months old, use 1/2 the above rate.

To control quackgrass, apply 4 lbs. per acre in the fall or split the application applying 2 lbs. per acre in the fall plus 2 lbs. per acre in the spring, when quackgrass is actively growing.

Note: Do not apply when fruit is present, or illegal residues may result.

Cranberries

MA. Apply up to 4 lbs. per acre either before spring growth begins or in the fall after harvest.

Other areas. Apply 2 lbs. per acre before spring growth begins.

Filberts

Apply 2-4 lbs. per acre in the fall or apply a split application of 2 lbs. per acre in the fall plus 2 lbs. per acre in the spring.

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

Note: Do not apply when nuts are on the ground during the harvest period, or illegal residues may result.

Grapes

Apply 2-5 lbs. per acre any time between harvest and early spring.

Precaution: Do not use in vineyards established less than three years, or crop injury may occur.

WEST AVENUE

Grapefruit, Lemons, Oranges

AZ (Lemons and Oranges only): Apply a split application of 1.75 lbs. per acre in the spring plus 1.75 lbs. per acre in the fall.

CA: In grapefruit, lemons, and oranges, apply 2.2-4.4 lbs. per acre in a single application; or apply 2.2 lbs. per acre in the fall and 2.2 lbs. per acre in the spring.

Precaution: Do not use in the Imperial, Coachella, or Palo Verde valleys, or crop injury may occur.

FL (Grapefruit and Oranges only). (Ridge Areas) Apply only once per year. For control of weeds listed under General Information, apply 7-10.6 lbs. per acre in the spring, to also control milkweed vine, use 8-9-10.6 lbs. 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 3.5 lbs. 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.

TX (Grapefruit and Oranges only): Apply 4-4.5-3 lbs. per acre.

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

Macadamia Nuts

Apply 2-2.4 lbs. in 50 gals. of water per acre before harvest and just prior to weed emergence. Repeat application as necessary.

Note: Do not apply when nuts are on the ground during the harvest period, as illegal residues may result.

Olives

Apply 2-2.4 lbs. per acre following grove preparation in the fall. Repeat annually in midwinter.

Peaches, Plums, Sweet Cherries

Apply 1.75-4.4 lbs. per acre. Apply in late fall to early spring prior to weed emergence.

Precautions: To avoid crop injury, (1) Peaches: use only in AR, LA, MO, OK, TX, and states east of the Miss. River. For CA, see specific directions in the section "Almonds and Peaches (CA only)". (2) Plums and sweet cherries: use only in MO and states east of the Miss. River except TN.

Pecans

Apply 2-2.4 lbs. per acre before weeds emerge in the spring.

Precautions: To avoid crop injury, (1) Do not use west of the Pecos River in TX or in NM, AZ, or CA. (2) Do not make applications to transplanted trees that have been established less than two years in the grove.

Note: Do not apply when nuts are on the ground, or illegal residues may result. Do not allow animals to graze treated areas.

Strawberries

Oregon and Washington: For control of chickweed, groundsel, mustard, and shepherds-purse, apply broadcast 1.1 lbs. 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.

Precautions: To avoid crop injury, (1) Make only one application per growing season. (2) Do not apply within 4 months after transplanting.

Walnuts

Apply 2-2.4 lbs. per acre. Leveling and furrowing operations after application will lessen effectiveness of weed control.

Note: Do not apply when nuts are on the ground, or illegal residues may result.

Tank Mixture with Ametryn 80W for Grapefruit and Oranges

Use in grapefruit and oranges in FL and TX for control of weeds listed in the following directions and under General Information. Apply the rates given below in a minimum of 40 gals. of water per acre thoroughly covering existing vegetation, but avoiding contact with citrus fruit, foliage, or stems. Apply when weeds have resumed active growth in the spring, but before they exceed 4 inches in height (except as noted for vines). Observe all precautions and limitations on the labeling of this product and Ametryn 80W.

FL (Ridge Area): Apply 4-4.4 lbs. of this product plus 5 lbs. of Ametryn 80W per acre, controls milkweed vine when applied either pre-emergence or on vines up to 24 inches tall.

FL (Bedded Areas): Apply 3.5 lbs. of this product plus 6 lbs. of Ametryn 80W per acre; controls balsamapple when applied either pre-emergence or on vines up to 12 inches tall.

TX: Apply 3-5-4 lbs. of this product plus 2-3 lbs. of Ametryn 80W per acre plus 2 qts. nonionic surfactant, such as \star , per 100 gals. of spray mixture (add surfactant to spray tank last); controls buffelgrass, marivevine (ivy freebina), Texas panicum, sandbur, and sunflower, and gives top-kill of johnsongrass. Use 4.4 lbs. of this product per acre for longer residual control; use 3 lbs. of Ametryn 80W per acre for control of heavy weed growth and for top-kill of johnsongrass; use the higher rate of both products for control of marivevine. \star Surf-Ac 820.

Precautions (All areas): To avoid injury, (1) Do not use in nurseries, or around trees that have been established in the grove less than two years, except in FL. (2) Do not use in nurseries, or where trees are under stress from freeze damage for one year after the freeze. (3) Apply only once per year.

Note (All areas): Do not apply within 30 days before harvest, or illegal residues may result. Do not graze treated areas.

Tank Mixture with Bromacil 80W for Grapefruit and Oranges (Florida Only)

Use in grapefruit and oranges in FL for control of balsamapple, black nightshade, carpetweed, crabgrass, cudweed, dayweed, Florida pusley, horseweed, pepperweed, pigweed, poorjoe, ragweed, rattlebox, spanishneedles and sandbur, and for partial control of bermudagrass, bahiagrass, pangolagrass, paragrass, and torpedograss. Apply 3-5-7 lbs. of this product plus 3-4 lbs. of bromacil 80W per acre beneath trees in a minimum of 40 gals. of water per acre before or soon after weed growth begins. Use the lower rates for light weed infestations or all applications in bedded citrus areas. Use the higher rates for heavy weed infestations only in ridge grown citrus areas. Temporary yellowing of citrus leaves may occur following treatment.

Precautions: To avoid crop injury, (1) Do not use in nurseries or where trees are under stress from freeze damage for one year after the freeze. (2) Do not use on soil with less than 1% organic matter or on poorly drained soil. (3) Do not treat trees planted in irrigation furrows. (4) Do not treat diseased trees such as those with foot rot. (5) Do not use in groves interplanted with other trees or desirable plants, nor in home grapefruit or orange plantings, or in areas where roots of other valuable plants or trees may extend. (6) Treated areas may be planted to citrus trees one year after application. (7) Do not rotate to other crops within two years after application.

Note: Apply only once per year and avoid contact with foliage and fruit with spray or mist, or illegal residues may result.

Tank Mixture with Gramoxone[®]

This tank mix is effective in the following fruit and nut crops for kill of existing vegetation and for residual control of the annual broadleaf and grass weeds claimed for this product applied alone. This combination is also effective for top-kill and suppression of perennial weeds.

Use this tank mix on these crops:

almonds (CA only)	grapefruit (CA, FL ² & TX only)	oranges ²
apples	grapes	peaches ³
avocados (CA & FL ¹ only)	lemons (AZ & CA only)	pears
cherries (sour and sweet ⁴)	macadamia nuts	pecans
hiberts	olives	plums ⁴
		walnuts

Apply the rate given under the appropriate crop on this label plus 1.5-2.5 qts. Gramoxone[®] in 50-200 gals. (30-50 gals. for peaches) of water per acre to the orchard floor avoiding contact with fruit, foliage, or stems. Add a nonionic surfactant, such as \star , at 0.5 pt. per 100 gals. of spray. Apply when weeds are succulent and new growth is 1-6 inches tall. For mature woody weeds or difficult to control perennial weeds, re-treat or spot treat with Gramoxone if regrowth occurs. \star Surf-Ac 820.

Add this product to the spray tank first (refer to Mixing procedures section of this label), then add Gramoxone, and add the surfactant last. Provide constant agitation during mixing and application to keep the mixture in suspension.

Precautions: To avoid crop injury, (1) Apply the tank mix only once per year. (2) Use a shield for young trees or vines.

Refer to the labels of both products for further directions, specific weeds controlled, and precautions and limitations of each crop.

¹ In avocados in Florida, this tank mix also controls balsamapple vine, rattle amaranth, and at the higher rate of each herbicide, it suppresses coral vine.

² In grapefruit and oranges in Florida, apply 3.5 lbs. of this product per acre in bedded areas and 7-10.6 lbs. per acre in ridge areas.

³ Limited to CA, AR, LA, MO, OK, TX, and states east of the Miss. River. As appropriate, refer to the sections "Almonds and Peaches (CA only)" or "Peaches, Plums, Sweet Cherries" for rate of this product and other information.

⁴ Limited to MO and states east of the Miss. River except TN.

⁵ Based on a product containing 1.5 lbs. Gramoxone cation per gallon.

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Tank Mixture with Roundup[®]

This tank mixture is effective in grape vineyards and in the following bearing or nonbearing tree crops for control of existing vegetation and for residual control of the annual broadleaf and grass weeds claimed for this product applied alone. This combination is also effective for partial control of perennial weeds contacted by the spray mixture during application. Use this tank mixture on these crops:

almonds** (CA only)	grapefruit* (CA, FL ¹ and TX)	peaches**
apples*	grapes*	pears*
avocados* (CA and FL only)	lemons* (AZ and CA)	pecans**
cherries (sour and sweet ³)	macadamia nuts**	plums** ³
filberts**	oranges* (AZ, CA, FL ¹ and TX)	walnuts**

Use the appropriate rate given elsewhere on this label for SIMAZINE applied alone to the crop being treated. Add to the spray tank 1-5 qts. of Roundup per acre depending on weeds present and their growth stage. Also add an agriculturally approved nonionic surfactant at 0.5% by volume of spray solution. Apply the mixture in 10-40 gals. of water per acre as a postemergence spray to the weeds at the appropriate weed growth stage given on the Roundup label.

Add SIMAZINE to the spray tank first, then add Roundup. Provide constant agitation during mixing and application to keep the mixture in suspension. Refer to Application Procedures section of this label for further directions.

Precaution: To avoid crop injury, take extreme care to avoid contact of herbicide solution, spray, drift, or mist with foliage or green bark of trunk, branches, suckers, fruit, or other parts of trees or vines. Observe precautions on both the SIMAZINE and Roundup labels for each crop involved.

Refer to the labels of both herbicides for further directions, specific weeds controlled, precautions and limitations on each crop.

* Allow a minimum of 14 days between last application and harvest.

** Allow a minimum of 21 days between last application and harvest of these crops.

¹ In grapefruit and oranges in Florida, apply 3.5 lbs. of this product per acre in bedded areas and 7-10.6 lbs. per acre in ridge areas.

² Limited to CA, AR, LA, MO, OK, TX, and states east of the Mississippi River. For CA, see specific directions in the section "Almonds and Peaches (CA only)".

³ Plums and sweet cherries, limited to MO and states east of the Mississippi River except TN.

Tank Mixture with Surlan[®]

Use this tank mix in the following crops for preemergence control of all weeds claimed on both labels:

almonds	cherries	lemons	pecans
apples	filberts	oranges	plums
avocados	grapes	peaches	English
caneberries	grapefruit	pears	walnuts

Apply the SIMAZINE 90DF rate given under the appropriate crop on this label plus 2.67-5.33 lbs. of Surlan 75W or 2-4 qts. of Surlan A.S. in 20-40 gals. of water per acre. Refer to the Surlan 75W or Surlan A.S. label for complete tank mix directions. Observe all precautions and limitations on the SIMAZINE and Surlan labels.

Field and Forage Crops

Corn

Nitrogen solutions or complete fluid fertilizers may replace all or part of the water as a carrier in the spray. Determine the physical compatibility of this product with fertilizer before use. Refer to the General Information section of this label for a compatibility test. 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. Best results will be obtained when this product is applied within 2 weeks before planting. Under dry weather conditions, preplant applications may give better weed control. If weeds develop, particularly under relatively dry conditions, a shallow cultivation will generally result in better weed control.

Soil texture	Broadcast [*] rate per acre
Coarse-textured soil: Sand, silt, and loam that is low in organic matter	2.2 lbs.
Medium-textured soil: Soil containing a moderate amount of clay and organic matter	2.6 lbs.
Fine-textured soil: Loam that is high in organic matter and clay (including dark prairie soils of Corn Belt)	3.3 lbs.
Organic soil: Peat, muck, and high-organic clay	4.4 lbs.

*For calculation of band treatment rate, see the General Information section.

To control quackgrass, apply 3-4.4 lbs. per acre in the fall. Plow two to three weeks later, or if erosion is a problem, delay plowing until spring.

Precautions: (1) Do not apply more than 4.4 lbs. per acre to corn per year. (2) Do not rotate to any crop except corn until the following year or injury may occur. (3) After harvest, plow and thoroughly till the soil in fall or spring to minimize possible injury to spring-seeded rotational crops, regardless of the rate used. (4) If more than 3.3 lbs. 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 preplant incorporated in corn in the High Plains and Intermountain areas of the West (including central and western KS, western NE, western OK, and the Panhandle of TX) 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 this product to control weeds in corn only when corn is to follow corn or when a crop of untreated corn is to precede another rotational crop. (7) In western MN and eastern parts of the Dakotas, NE, and KS, do not plant soybeans following corn treated with this product if more than 2.2 lbs. per acre (or equivalent rate in a band) was applied or injury may occur. (8) Injury may occur to soybeans planted in north-central and northwest IA, south-central and southwest MN, northeast NE, southeast SD, and other areas the year following application on soils having a calcareous surface layer. (9) Do not plant sugar beets, tobacco, vegetables (including dry beans), spring-seeded small grains, or small-seeded legumes and grasses the year after an application, or injury may occur.

Note: Do not graze treated areas, or illegal residues may result.

Tank Mixtures on Corn

ATRAZINE: Use this product in a preplant or preemergence tank mixture with Atrazine 90DF, Atrazine 80D, or Atrazine 4L for control of many annual weeds, including carpenterweed, crabgrass, fall panicum, foxtail, lambsquarters, morningglory, pigweed, ragweed, and velvetleaf.

Apply at the rates given below. Use the 1:1 ratio for most weeds and the 2:1 ratio for expected heavy infestations of crabgrass and fall panicum.

Soil texture	Broadcast: Lb. per acre			
	1:1 Ratio		2:1 Ratio	
	SIMAZINE 90DF	ATRAZINE 80D	SIMAZINE 90DF	ATRAZINE 80D
Sand, loamy sand, sandy loam	1.1 lbs.	1.25 lbs.	1.5 lbs.	0.83 lb.
Loam, silt loam, silt, clay loam, sandy clay loam, silty clay loam, sandy clay, or silty clay with low organic matter	1.33 lbs.	1.5 lbs.	1.8 lbs.	1 lb.
Loam, silt loam, silt, clay loam, sandy clay loam, silty clay loam, sandy clay, or silty clay with medium to high organic matter, and clay (including dark prairie soils of the Corn Belt)	1.6 lbs.	1.8 lbs.	2.1 lbs.	1.2 lbs.

*When using Atrazine 4L or 90DF, U.S. equivalent rates: One lb. of Atrazine 80D equals 0.8 qt. of Atrazine 4L or 0.9 lb. of Atrazine 90DF.

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Turfgrasses for Sod (Florida Only)

St. Augustinegrass, Centipedegrass, and Zoysia Grass
Apply 2.2-4 lbs. per acre, according to soil texture as indicated below.

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

If weeds regrow, apply an additional 2.2 lbs. on muck or peat, or 1.1 lbs. on sandy soil.

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 new, 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 "Turfgrasses for Sod (Florida only)" section above.

Bermudagrass, Centipedegrass, St. Augustinegrass, and Zoysia Grass

Apply this product after October 1 before emergence of winter annual weeds for control of annual bluegrass, burclover, carpet burweed, chickweed, corn speedwell, henbit, hop clover and spurweed. This product will control annual bluegrass even if it is emerged at time of treatment. For control of summer annual weeds listed in the General Information section of this label, also apply this product in late winter before the weeds emerge. Apply in a minimum of 15 gals. of water per acre or 1 gal. per 1,000 sq. ft.

Where annual bluegrass is the major weed, use 1.1 lbs. of this product per acre (0.4 oz. per 1,000 sq. ft.). Use 2.2 lbs. per acre (0.8 oz. per 1,000 sq. ft.) for control of the other weeds named above. Do not exceed 1.1 lbs. per acre per treatment on newly sprigged turfgrass or on hybrid bermudagrass such as Tiflawn, Tifway, and Ormond.

For continued summer annual weed control, apply another 1.1 lbs. per acre at least 30 days after the previous application, but not after April 15. However, do not make more than two applications of this product per year.

Precautions: On newly sprigged turfgrass and hybrid bermudagrass, temporary slowing of growth and yellowing may occur following application. To avoid turf injury, (1) Use only on turfgrass reasonably free of infestation of insects, nematodes, and diseases. (2) Do not use on golf greens. (3) Do not use north of NC (except may be used in Virginia Coastal Plains) or west of the high rainfall areas of eastern OK and eastern TX. (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 overseed with desirable turfgrass within 4 months before or 6 months after treatment. (7) Do not apply this product to newly seeded bermudagrass until it has overwintered and has a well-developed rhizome system. Do not exceed 2.2 lbs. product/A within 12 months of seeding bermudagrass.

Vegetable Crops

Asparagus (Established)

Apply 2.2-4 lbs. 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.

Precautions: (WA and OR only) To avoid crop injury, (1) Do not apply on gravelly, sand, or loamy sand soil. (2) Do not allow irrigation water to stand or to form pools in the field.

Artichokes

Apply 2.2-4 lbs. per acre as a directed spray after the last fall tillage.

Precautions: To avoid crop injury, (1) Do not apply on gravelly, sand, or loamy sand soil. (2) Apply only once per year.

Nonselective Weed Control on Noncrop Land

Best results are obtained when this product is applied before weeds emerge. If weed growth has begun and removal is not feasible, include a contact or translocated herbicide in the spray.

This product provides long-term weed control on industrial sites, highway medians and shoulders, railroad rights-of-way, lumberyards, 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 0.9 lb. of this product for both ground and aerial applications. Use more water if practical.

Precautions: (1) Do not use this product for nonselective weed control on land to be cropped, near adjacent desirable trees, shrubs, or plants, or in greenhouses, or injury may occur. (2) Do not use in areas accessible to livestock or allow livestock to graze treated weed foliage.

To control annual broadleaf and grass weeds (including barnyardgrass, cheat, crabgrass, common lambsquarters, foxtail, ragweed, puncturevine, and turkey mullen) apply 5.3-11.1 lbs. per acre.

To control most annual and many perennial broadleaf and grass weeds (including quackgrass, bluegrass, redtop, burdock, Canada thistle, orchardgrass, purpletop, smooth brome, dogfennel, and plantain) apply 11.1-20 lbs. per acre.

Tank Mixture with Roundup

This tank mixture will provide control of emerged annual weeds and residual control of weeds listed on the SIMAZINE label. The combination also will partially control emerged perennial weeds listed on the Roundup label. Add to the spray tank the appropriate rate of SIMAZINE noted in the above section for SIMAZINE alone. Then add 1-5 qts. of Roundup per acre depending on weeds present and their growth stage. Also add an agriculturally approved nonionic surfactant at 0.5% by volume of spray solution. Apply the mixture in 10-40 gals. of water per acre as a postemergence spray at the appropriate weed growth stage given on the Roundup label. Provide constant agitation during mixing and application to keep the mixture in suspension. Refer to the Application Procedures section of this label for further directions. Refer to the labels of both herbicides for specific noncrop sites, rates, weeds controlled, and further directions, precautions, and limitations.

Tank Mixture with Oust

Use this tank mixture to control the weeds listed below with either preemergence, early postemergence, or postemergence applications. Use the higher rates within the ranges given under conditions of heavy weed growth, on soil with over 2½% organic matter, on areas with heavy decaying plant residues, or on high moisture areas such as along road edges or railroad shoulders. To improve wetting and/or contact activity on emerged weeds, add a nonionic surfactant such as Surf-Ac 620 at 1 qt. per 100 gals. of spray. Do not apply by aircraft. Provide constant agitation during mixing and application to keep the mixture in suspension. Refer to the labels of both herbicides for specific noncrop sites and further directions, precautions, and limitations.

Preemergence to Early Postemergence: To control the weeds listed below apply 4.4-8.9 lbs. of SIMAZINE 500F plus 3-5 ounces of Oust in a minimum of 25 gals. of water per acre.

Broadleaf Weeds (Up to 3-4" in Height or Diameter)

Bouncingbet	horsetail	rowthistle
buckhorn plantain	kochia	St. Johnswort
burclover	lambsquarters	sunflower
Carolina geranium	little mallow	sweet clover
common chickweed	mustard	tansymustard
common dandelion	ox-eye daisy	tansy ragwort
common speedwell	pigweed	turnip mustard
common yarrow	prickly lettuce	turkey mullen
crimson clover	puncturevine	vetch
dogfennel	purple starthistle	wild carrot
filaree	ragweed	yellow rocket
hoary cross	Russian thistle	

Grasses (Up to 6-12" in Height)

Alta fescue	fall panicum	red brome
annual bluegrass	fescue	red fescue
annual ryegrass	foxtails	reed canary grass
bahiagrass	Indiangrass	ryegrass
barnyardgrass	Italian ryegrass	smooth brome
cheatgrass	johnsongrass	spangleton
crabgrass	(short-term control)	wildgrass
downy brome	little barley	

Postemergence: To control actively growing weeds listed below apply 8.9-17.8 lbs. of SIMAZINE 500F plus 6-12 ounces of Oust in a minimum of 25 gals. of water per acre.

Actively Growing Weeds

bedstraw	Jerusalem artichoke	johnsongrass
Canada thistle	kudzu	(season-long control)
curly dock	mayweed	yellow nutsedge
dewberry	musk thistle	
fieldneck	poison ivy	
flabene	spanish needles	
goldenrod	turkey mullen	
hemlock	Virginia pepperweed	
honeysuckle	wild blackberry	

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Precautionary Statements

Hazards to Humans and Domestic Animals ✓

CAUTION

Harmful if swallowed, inhaled or absorbed through the skin. Avoid breathing dust or spray mist. Avoid contact with eyes, skin, or clothing.

First Aid: In case of contact, immediately flush eyes or skin with plenty of water. Get medical attention if irritation persists.

Environmental Hazards

Do not apply directly to water or wetlands. Do not contaminate water by cleaning of equipment or disposal of wastes. Simazine is a chemical which can travel (seep or leach) through soil and enter ground water which may be used as drinking water. Simazine has been found in ground water as a result of its use as a herbicide. Users of this product 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. Users are advised to consult with their local agricultural agencies to obtain information on the location of ground water and the type of soil in their area. ✓

Eradicane ^R trademark of Stauffer Chemical Co.
Gramoxone ^R trademark of ICI Americas for paraquat
Dust ^R trademark of E.I. DuPont
Roundup ^R trademark of Monsanto Co. for glyphosate
Surflan ^R trademark of Elanco Products Co. for oryzalin
Sutan t ^R trademark of Stauffer Chemical Co.

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 bags carefully so as not to tear or puncture. Do not move containers from one area to another unless they are securely sealed. Keep containers tightly sealed when not in use. Do not allow bags to become wet or store near water supplies, food, feed and fertilizer to avoid contamination. Store in original container only. If the contents are leaking or material is spilled follow these steps: ✓

1. Collect and place in suitable containers for disposal.
2. Wash area with water and soap to remove remaining pesticide.
3. Follow washing with clean water rinse.
4. Do not allow run off to enter sewer or contaminate water supplies.
5. Dispose of waste as indicated below.

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

CONTAINER DISPOSAL: Completely empty bag into application equipment. Then dispose of bag in a sanitary landfill, or by incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke. ✓

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