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Ms. Barbara Brown
Drexel Chemical Co.
P.O. Box 9306
Memphis, TN 38109

Dear Ms. Brown:

Subject: Final Printed Labels- Worker Protection
Drexel Atrazine 4L
EPA Reg. No. 19713-11
Your application dated Oct. 21, 1993

The labeling referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, is acceptable. A stamped copy is enclosed for your records.

Sincerely yours,

Robert J. Taylor
Product Manager 25
Fungicide-Herbicide Branch
Registration Division (H7505C)

Enclosure

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STATEMENT OF PRACTICAL TREATMENT

IF SWALLOWED: Contact your local Poison Control Center, hospital or physician. If the patient is unconscious, maintain breathing and heartbeats (cardiopulmonary resuscitation). If the patient is conscious and alert, induce vomiting (stirup of gastric or stimulate the back of the throat with finger). Never give anything by mouth to an unconscious person.

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

NOTE TO PHYSICIAN: This is a specific antidote for carbamate. If this product is ingested, induces effects or causes stomach. The use of an aqueous slurry of activated charcoal may be considered.

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMAL

CAUTION: Avoid application directly to animals or humans. HARMFUL OR FATAL IF SWALLOWED. Avoid Breathing of Spray. Do Not Take Internally. Causes moderate eye irritation. Avoid contact with eyes, skin or clothing.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Applicators and other handlers (other than mixers and loaders) who may be exposed to the dust through application or other tasks must wear:

- Long sleeved shirt and long pants
- Waterproof gloves
- Chemical-resistant footware plus socks
- Mixers and loaders who may be exposed to the concentrate through mixing, loading, application or other tasks must wear:
- Chemical-resistant footware plus socks
- Waterproof gloves
- Chemical-resistant footware plus socks
- Protective eyewear
- 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

Atrazine can travel (seep or leach) through soil and can enter groundwater which may be used as drinking water. Atrazine has been found in groundwater. Users are advised not to apply atrazine to sand and loamy sand soils where the water table (groundwater) is close to the surface and where these soils are very permeable, i.e., well-drained. Your local agricultural agencies can provide further information on the type of soil in your area and the location of groundwater.

Groundwater contamination may be reduced by using and storing of permanent liquid bulk storage sites with an impermeable material. This pesticide is toxic to aquatic invertebrates. For terrestrial use, do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Runoff and drift from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when disposing of equipment washwaters.

This product may not be mixed/loaded, or used within 50 feet of all wells including abandoned wells, drainage wells, and sink holes. This product may not be mixed or loaded within 50 feet of intermittent streams and rivers, natural or impounded lakes and reservoirs. This product may not be applied directly or by ground within 66 feet of the points where surface water runoff enters perennial or intermittent streams and rivers or within 200 ft. around natural or impounded lakes and reservoirs. If this product is applied to highly erodible land, the 66 foot buffer or set-back from runoff points must be planned to crop or seeded with grass or other suitable crop.

GENERAL INFORMATION

ATRAZINE 4L Herbicide will control most annual broadleaf and grass weeds in corn, sorghum, sugarcane, and certain other crops as specified on the label such as: barnyardgrass, witchgrass (Panicum capillare), yellow foxtail, green foxtail and oat (large leaf), crabgrass, giant foxtail, velvetleaf, morningglory, amaranth, pigweed, ragweed, marestail, burdock and mustard. ATRAZINE 4L may be applied before or after weeds emerge. In each case where a range of rates is given, the lower rate should be used on coarse textured soil and soil low in organic matter, and the higher rate should be used on fine textured soil and soil high in organic matter.

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 combination or in sequence with other registered herbicides which are not atrazine. If any resistant biotypes are expected to be present, use a registered non-atrazine herbicide. Consult with your state Agricultural Extension Service for specific recommendations.

Since ATRAZINE 4L acts mainly through root absorption, its effectiveness depends on rainfall or irrigation to move it into the root zone. Should weeds develop, a shallow cultivation or rotary hoeing will generally result in better weed control.

ATRAZINE 4L is non-flammable. Care should be taken to avoid using ATRAZINE 4L near adjacent desirable plants or in greenhouses or rooms may occur. To avoid spray drift, do not apply under windy conditions. Avoid spray overlap, as crop injury may result.

NOTE: The Seller does not recommend the use of ATRAZINE 4L in combination with other herbicides or oils except as specifically described on the label or in literature published by the Seller. FAILURE TO FOLLOW ALL PRECAUTIONS ON THIS LABEL MAY RESULT IN POOR WEED CONTROL, CROP INJURY, OR ILLEGAL RESIDUES.

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 are the same size. Calibrate sprayer before use and recalculate at the start of each season and when changing carriers. Unless otherwise specified, use a minimum of 10 gallons of spray mixture per acre for all pre-emergence applications, post-emergence applications, and post-emergence applications (with or without 66 surfactant) with ground equipment.

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 to (3) Provide a minimum of 20" bypass at all times.

Use centrifugal pumps which provide greater shear when discharging and mixing this product. The pump should provide a minimum of 10 gallons per minute per 100 gallon tank size circulated through a correctly positioned spray tube or jets.

Use screens to protect the pump and to prevent nozzles from clogging. Screens placed on the suction side of the 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 application, calculate the amount to be applied per acre as follows:

band width in inches X broadcast rate = amount needed

row width in inches per acre per acre in field

AERIAL APPLICATION

Use aerial application only where broadcast applications are specified. Apply in a minimum of 1 quart of water for each quart of ATRAZINE 4L applied per acre. For post-emergence treatments on corn and sorghum apply recommended rate in a minimum of 2 gal. of water/A. Local conditions under conditions where uniform coverage cannot be obtained or where excessive spray drift may occur.

ATRAZINE 4L IN WATER APPLICATIONS

ATRAZINE 4L, a liquid formulation, should be mixed with water and applied as a spray. Pour ATRAZINE 4L into the tank during or after mixing. Hydraulic (jet) or mechanical agitation is recommended during mixing and application to keep the material in suspension. All return flow to the tank must discharge below liquid level and agitation should not be so intense as to cause air bubbles to form in the liquid. Wash sprayer thoroughly after use.

ATRAZINE 4L IN LIQUID FERTILIZER APPLICATIONS

Nitrogen solutions or complete liquid fertilizers may replace all or part of the water as a carrier for pre-emergence and post-emergence applications of ATRAZINE 4L on corn and sorghum. Mixing should be accomplished as described under water applications. Check the compatibility of this product with liquid fertilizer and/or nitrogen solution as shown below before use. Do not apply in nitrogen solution or complete liquid fertilizer after corn or sorghum emerges, except as noted under Lay-by treatment for corn, or crop injury may occur.

Compatibility Test: Since liquid fertilizers can vary even within the same analysis, always check compatibility with herbicide(s) each time before use. Be especially careful when using complete suspension or fluid fertilizers as

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serious compatibility problems are more likely to occur. Commercial application equipment may improve compatibility in some instances. The following test assumes a spray volume of 25 gal/A. For other spray volumes, make appropriate changes in the ingredients. Check compatibility using the procedure:

1. Add 1 pint of fertilizer to each of 2 one-quart jars with tight lids.
2. To one of the jars, add 1/4 tsp. or 1.2 milliliters of a compatibility agent approved for this use, such as Compensol or Unifol (1/4 tsp. is equivalent to 2 qt. per 100 gal. spray). Shake or stir gently to mix.
3. To both jars add the appropriate amount of herbicide(s). If more than one herbicide is used, add them successively with dry herbicides first, then liquids, and emulsifiable concentrates last. After each addition, shake or stir gently to thoroughly mix. The appropriate amount of herbicide for this test follows:

Dry Herbicides: For each pound to be applied per acre, add 1.5 level teaspoons to each jar.

Liquid Herbicides: For each pint to be applied per acre, add 0.5 teaspoon to each jar.

4. After adding all ingredients, put lids on and tighten, and invert each jar ten times to mix. Let the mixtures stand 15 minutes and then look for separation, large flakes, precipitates, gels, heavy oil 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 removed readily, the mixture can be sprayed as long as good agitation is used. If the mixtures are incompatible, test the following methods of improving compatibility: (A) Shurry the dry herbicide(s) in water before addition; or (B) Add 1/4 of the compatibility agent to the fertilizer and the other 1/4 of the emulsifiable concentrate or flowable herbicide before addition to the mixture. If incompatibility is still observed, do not use the mixture.

ATRAZINE 4L PLUS EMULSIFIABLE OIL OR OIL CONCENTRATE

Adding emulsifiable oil (petroleum-derived petroleum-derived, or concentrate or single or mixed crop-derived concentrate) to postemergence water-based sprays in corn and sorghum may improve weed control. However, under certain conditions, the use of either type of oil may seriously injure the crop. To minimize this possibility, observe the following directions. Use one of the following properly emulsified:

1. A herbicide oil concentrate containing at least 1% but not more than 20% suitable emulsifier or surfactant blend.
2. Petroleum-derived oil containing at least 1% suitable emulsifier.

Note: In the event of a compatibility problem when mixing oil with the product and water, a suitable compatibility agent such as Compensol or Unifol should be used. Any of the above oils contaminated with water or other materials can cause compatibility problems and/or crop injury.

- 1) Be sure sprayer is clean and not contaminated with any other materials or crop injury or soybean spraying may result. 2) Fill tank 1/4 full with clean water, herbicide solution, or complete liquid fertilizer. 3) Start agitation. 4) Be certain that the agitation system is working properly and creates a rotating or rolling action on the liquid surface. 5) Pour product directly from tank into mix tank. 6) Continue filling tank until 80% full. Increase agitation if necessary to maintain surface action. 7) Add emulsifiable oil, oil concentrate, or tank mix herbicide(s) after this product is thoroughly suspended. 8) Finish filling tank. 9) Empty tank as completely as possible before refilling to prevent buildup of oil or emulsifiable concentrate residue. 10) Maintain agitation to avoid separation of materials. 10) If an oil or 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.

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 POOR WEED CONTROL, CROP INJURY, OR ILLEGAL RESIDUE.

Do not apply this product through any type of irrigation system. 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 is to comply with specific instructions and exceptions pertaining to the State or Tribe 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—12 hours).

Personal Protective Equipment required for entry into 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
- Pesticide-resistant footwear plus socks
- Protective eyewear

ROTATIONAL CROPS—ALL USES

1. Land treated with ATRAZINE 4L should not be planted to any crop except corn or sorghum until the following year or injury may occur.
2. If ATRAZINE 4L is applied after June 10, do not rotate with crops other than corn or sorghum the next year or injury may occur.
3. In the high Plains and intermediate areas of the West where rangeland is scarce and eradic or where irrigation is required, use ATRAZINE 4L to control weeds in corn only when corn is to follow corn or a crop of untreated corn or sorghum is to precede other rotational crops.
4. In Western Minnesota and Eastern parts of the Dakota, Nebraska and Kansas, corn treated with ATRAZINE 4L should not be followed with soybeans if the broadcast rate applied was more than 4 pt./A. (or comparable rate in a band or spray) or injury may occur.
5. Injury may occur to soybeans planted in North Central Iowa and South Central Minnesota the year following an ATRAZINE 4L application on Hays, Cavender, Brainerd or other soils having extensive surface layer.
6. Do not plant sugar beets, beets, vegetables (including dry beans), spring-seeded small grains or small seeded legumes and precede the year following ATRAZINE 4L application or injury may occur.

PREPLANT SURFACE-APPLIED, PREPLANT INCORPORATED, OR PREEMERGENCE (OR POSTEMERGENCE AT 4 PT/A WITH OIL)

Broadleaf and Grass Weeds Controlled:

barleygrass	cockspur***	nightsade
(watergrass)***	groundcherry	rigweed
giant foxtail***	proso millet	purslane
green foxtail***	hebe	rigweed
large (hairy)	lemniscata	velvetleaf***
proso millet	annual morning-	(buckhorn)
wild oats	glory	ackweed***
wildgrass	mustard	
(Panicum capillare)***		

POSTEMERGENCE WITH EMULSIFIABLE OIL OR OIL CONCENTRATE IN WATER (2.4 PT/A)

annual morningglory	rigweed
cockspur	rigweed
proso millet	annual morningglory
lemniscata	wild buckhorn
mustard	velvetleaf***

Where there are state/local requirements regarding atrazine use (including lower maximum rates and/or set-backs) which are different from the label, the more restrictive/precautionary requirements must be followed.

Certain states may have established rate limitations within specific geographical areas. Consult your state weed pesticide control agency for additional information. It is a violation of the label to deviate from state regulations.

- ***Partial control only.
- ***Partial control only on medium and fine-textured soils.

CORN

ATRAZINE 4L may be applied either before planting, at planting, or after planting as indicated below.

Preplant Surface-Applied (Broadleaf and Grass Control)

Use on medium and fine textured soils with minimum tillage or no tillage systems only in CO, IL, IN, IA, KS, KY, MN, MO, MT, NE, ND, SD, WI, WY. Apply the recommended rate of ATRAZINE 4L shown in Table 1 up to 30 days prior to planting. On coarse-textured soils, do not apply more than two weeks prior to planting.

If weeds are present at the time of treatment, apply in tank mix combination with a contact herbicide (for example, paraquat or glyphosate). Observe directions for use, precautions, and restrictions on the label of the contact herbicide.

Note: To the extent possible, do not move treated soil out of the row or move untreated soil to the surface during planting, or weed control will be diminished.

PREPLANT INCORPORATED (Broadleaf and Grass Weed Control)

Broadcast in the spring after planting at the rate indicated in Table 1. Application may be made before, during or after final seedbed preparation. If soil is tilled or worked after application, avoid deep incorporation of ATRAZINE 4L.

Best results have been obtained when ATRAZINE 4L is applied within two weeks prior to planting.

PREEMERGENCE OR AT

(Broadcast and Grass Weeds)

Apply during or shortly after emergence in Table 1.

POSTEMERGENCE (Broadleaf and Grass Weeds)

Apply before weeds exceed 12 inches in height at late rice.

For Control

FOR ALL SOIL APPLICATION

On

(as defined by)

If conservation tillage is practiced, plan residues at planting

If the soil coverage with a maximum of 3.2 pt./A may

On Soil

Apply 4

FOR POSTEMERGENCE

If atrazine was applied prior

If a postemergence treatment

application, the total atrazine

ingredient (5 pts. of this product)

- Broadcast: control weeds

Handle: west TX and east

to strongly alkaline soil and

or IA, where persistent or green

rate in Table 1 for broadcast

Where there are state/local

regulations, the more restrictive

states may have established

areas. Consult your state

information. It is a violation

of the label to deviate from

state regulations.

***Partial control only.

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Broadcast 2.4 pt./A plus emulsifiable oil or oil concentrate before pigweed and lambsquarters reach 6 inches in height and before all other weeds reach 4 inches in height. A cultivation may be necessary if all weeds are not controlled or if weeds regrow.

PRECAUTIONS FOR APPLICATIONS OF ATRAZINE 4L PLUS EMULSIFIABLE OIL IN WATER TO CORN

1. Do not use oil in ATRAZINE 4L sprays when corn is under stress from prolonged cold, wet weather, poor fertility, or other factors, or when corn is wet and succulent from recent rainfall as crop injury may occur.
2. Do not use oils in sprays when treating inbred lines or any breeding stock as injury may occur.
3. Adding other insecticides, herbicides, liquid fertilizers or other materials is not recommended with ATRAZINE 4L and emulsifiable oil in water because they cause compatibility problems or crop injury.
4. Store and handle emulsifiable oil carefully. Oil contaminated with even a small amount of water may not emulsify properly when added to the tank.
5. Do not exceed 2.5 lbs. active ingredient (5 pts. of this product) per acre per calendar year.
6. Postemergence application to corn must be made before corn exceeds 12 inches in height.

TANK MIXTURE WITH ATRAZINE 4L FOR CORN

This product may be tank mixed with these herbicides for control of certain broadleaf and grass weeds in corn:

metolachlor	atrazine
metolachlor + paraquat	atrazine + glyphosate
metolachlor + glyphosate	atrazine + paraquat
metolachlor + simazine	paraquat
metolachlor + simazine + paraquat	glyphosate
metolachlor + simazine + glyphosate	simazine
simazine + glyphosate	simazine + paraquat
propachlor	butylate 67E

Use tank mix directions appearing on the labels of the above herbicides when tank mixing with this product. Observe all precautions and limitations on labeling of products used in a particular tank mix.

Note: When the labels of the above herbicides refer to ATRAZINE 80W, use equivalent rates of ATRAZINE 4L. One lb. of 80W equals 1.6 pt. of 4L.

ATRAZINE 4L PLUS SIMAZINE 4L OR SIMAZINE 80W
In addition to the weeds listed under ATRAZINE 4L Applied Alone - Corn and Grain Sorghum - Preplant Surface - Applied, Preplant Incorporated, or Pre-emergence, this combination also controls crabgrass, fall panicum, and carpetweed.

Broadcast tank mix before planting, at planting, or after planting, but before crop and weeds emerge, at rates in Table 2. Use the 1:1 ratio for control of most weeds. Use the 1:2 ratio for expected heavy infestations of crabgrass and fall panicum. Cultivate shallowly if weeds develop.

Preplant Surface-Applied: Use on medium and fine textured soils with minimum-tillage or no-tillage systems in CO, IL, IN, IA, KS, KY, MN, MO, MT, NE, ND, SD, WI, and WY. Apply the recommended rate of ATRAZINE 4L and simazine shown in Table 2 up to 30 days prior to planting. Applications made less than 30 days prior to planting may be as either a split or single treatment. On coarse-textured soils, do not apply more than two weeks prior to planting. Refer to the ATRAZINE 4L alone—Preplant Surface-Applied section of the corn label for additional details.

If weeds are present at time of treatment, apply in a tank mix combination with a contact herbicide (for example, paraquat or glyphosate). Observe

directions for use, precautions and restrictions on the label of the contact herbicide.

Note: To the extent possible, do not move treated soil out of the row or move untreated soil to the surface during planting, or weed control will be diminished.

Preplant Incorporated: Apply to the soil and incorporate in the spring before during or after final seedbed preparation. Avoid deep incorporation. For best results, apply within two weeks prior to planting.

Preemergence: Apply during or shortly after planting, but before crop and weeds emerge.

**TABLE 2
TANK MIXTURES WITH SIMAZINE 4L OR 80W ON CORN**

Soil Texture	BROADCAST RATE/A					
	1:1 Ratio*			1:2 Ratio**		
	Atrazine 4L	Simazine 80W or 4L	Simazine 4L	Atrazine 4L	Simazine 80W or 4L	Simazine 4L
Sand, loamy sand, sandy loam	2 pts	1.25 lb	2 pts	1.32 pts	1.67 lb	2.6 pts
Loam, silt loam, silt, clay loam, sandy clay loam, silty clay loam, sandy clay, or silty clay with low organic matter	2.4 pts	1.5 lb	2.4 pts	1.6 pts	2 lbs	3.2 pts
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)	3 pts	1.8 lb	3 pts	1.92 pts	2.4 lbs	3.84 pts

*For control of most weeds.

**For control of expected heavy infestations of crabgrass and fall panicum. Refer to Corn sections of this label and to simazine 4L or simazine 80W label for further directions, limitations and cautions.

ATRAZINE 4L PLUS SIMAZINE 4L OR 80W PLUS PARAQUAT

For Kill of Existing Vegetation and Residual Weed Control Where Corn Will Be Planted Directly Into a Cover Crop, Established Sod or in Previous Crop Residues.

Apply 2 to 4 pts. ATRAZINE 4L plus 2-4 pts. simazine 4L or 1.25 to 2.5 lbs. simazine 80W plus 1 to 2 pts. paraquat per sprayed acre prior to, during or after planting, but before crop emergence. Use the low rates of Atrazine and simazine on light soils, and the higher rates on heavy clay soils. Use 20 to 60 gals. of diluted spray per sprayed acre. Add Surf-Ac 820 or another non-ionic surfactant at the rate of 8 fl. oz. per 100 gals. diluted spray. Add the Atrazine to the spray tank while agitating, then add the simazine, paraquat, and Surf-Ac 820. Continue agitation during application. Use the 2 pts. rate of Surf-Ac 820. Use the 2 pts. rate of paraquat if existing vegetation is 4-6

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inches tall. This mixture will not control weeds taller than 6 inches. Refer to paraquat and simazine labels for further limitations and precautions.
For Control of Broadleaf and Grass Weeds
FOR ALL APPLICATIONS PRIOR TO CROP EMERGENCE
On Highly Erodible Soils (as defined by the Soil Conservation Service (SCS))

If conservation tillage is practiced, leaving at least 30% of the soil covered with plant residues at planting, apply 4 pts./A as a broadcast spray.
 If the soil coverage with plant residue is less than 30% at planting, a maximum of 3.2 pts./A may be applied.
On Soils Not Highly Erodible

Apply 4 pts./A as a broadcast spray.
ATRAZINE 4L PLUS SIMAZINE 4L OR 80W PLUS GLYPHOSATE

When applied as recommended under the conditions described, this tank mixture controls many emerged weeds, and gives preemergence control of many annual weeds when corn will be planted directly into a cover crop, established or in previous crop residues.

Apply this tank mixture in 20 to 60 gallons of water per acre immediately before, during or after planting, but **BEFORE CROP EMERGENCE**. As density of stubble, crop residue or weeds increases, spray palisage and rate should be increased within the recommended ranges to insure complete coverage.

Annual Weeds—Apply atrazine and simazine to actively growing grasses and broadleaf weeds that are 6 inches tall at the rates given in Table 3 plus 1 quart of glyphosate per acre. If the weeds are over 6 inches tall, increase the rate of glyphosate to 1.5 qts.

Perennial Weeds—At normal application rates in minimum tillage systems, perennial weeds may not be at the proper stage of growth for control. See the "General Information" section of the glyphosate label for the proper stage of growth for perennial weeds. Apply the atrazine and simazine at the rates given in Table 3 plus 2-4 qts. of glyphosate per acre. This combination will provide top kill and reduce competition from many emerged perennial grass and broadleaf weeds.

Note: Do not use this tank mix on sand or loamy sand soils. Do not exceed 4 qts. of glyphosate per acre in this tank mixture. Not recommended to control bermudagrass or johnsongrass in minimum tillage systems.

TABLE 3
ATRAZINE 4L PLUS SIMAZINE 4L OR 80W
FOR MIXTURE WITH GLYPHOSATE.

Soil Texture	Broadcast Rate/A	
	ATRAZINE 4L	Simazine * 4L or 80W
Coarse: sandy loam only	2 pts.	2 pts. or 1.25 lbs.
Medium: loam silt loam, silty, sandy clay loam	2-2.8 pts.	2-2.75 pts./or 1.25-1.75 lbs.
Fine: silty clay loam, clay loam, sandy clay, silty clay, clay	2.4-3.2 pts.	2.35-3.15 pts. or 1.25-2 lbs.

On highly erodible soils, as defined by the Soil Conservation Service (SCS), if conservation tillage is utilized (>30% plant residue) the maximum rate is

4 pts. per acre. If plant residue is <30%, the maximum rate is 3.2 pts. per acre. On soils not highly erodible, the maximum rate is 4 pts. per acre.
 *Use the higher rates of atrazine and simazine in the recommended ranges in soil with greater than 3% organic matter.

PRECAUTIONS FOR ALL APPLICATIONS TO CORN

1. Postemergence application to corn must be made before corn reaches 12 inches in height.
2. The maximum application rate for corn is 2.5 lbs. a.i. per acre per calendar year. Applications for quackgrass suppression in corn are restricted to spring application only. No fall applications are permitted.
3. To avoid crop injury and illegal residues do not apply more than 5 pts. per acre of ATRAZINE 4L to corn in any one year.
4. Following harvest of a treated crop, plow (moldboard or disk-plow) and thoroughly till the soil in the fall or spring to minimize possible injury to rotational spring-seeded crops, regardless of the rate used.
5. Do not graze treated area or feed treated forage to livestock for 21 days following application or illegal residues may result.
6. For best control of velvetleaf and cocklebur, the application rate cannot be less than 2 lbs./A active ingredient, either alone or in tank mix combination.

For postemergence applications plus emulsifiable oil or oil concentrate see additional precautions under that section of this label.

SORGHUM AND SORGHUM-SUDAN HYBRIDS
(GRAIN AND FORAGE TYPES)

Apply before planting, at planting, or after planting. See Corn section for weeds controlled.

Preplant Surface-Applied (Broadleaf and grass control): Use on medium-and-fine-textured soil with minimum tillage or no-tillage systems only in CO, IL, IN, IA, KS, KY, MN, MO, MT, NC, ND, SD, WI, WY. Apply 1/2 the recommended rate of atrazine shown in Table 4 for the soil texture as a split treatment: 30-45 days prior to planting and the remainder at planting. Applications made less than 30 days prior to planting may be as either a split or single treatment.

Under dry conditions, irrigation after application is recommended to move atrazine into the soil.

If weeds are present at time of treatment, apply in a tank mix combination with a contact herbicide (for example, paraquat or glyphosate). Observe directions for use, precautions, and restrictions on the label of the contact herbicide.

Note: To the extent possible, do not move treated soil out of the row or move untreated soil to the surface during planting, or weed control will be diminished.

Preplant Incorporated (Broadleaf and grass control): Broadcast in spring after plowing at rate in Table 4. Apply before, during, or after final seedbed preparation. If soil is tilled or worked after application, avoid deep incorporation. For best results, apply within two weeks prior to planting.

Pre-emergence (Broadleaf and grass control): Apply at rate shown in Table 4 before weeds exceed 1.5 inches in height and before sorghum exceed 12 inches in height.

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TABLE 4
Preplant Surface, Preplant Incorporated,
and Preemergence Applications *
For Broadleaf and Grass Weed Control in Sorghum

For All Soil Applications Prior to Crop Emergence On Highly Erodible Soils (As defined by the Soil Conservation Service (SCS))
If conservation tillage is practiced, leaving at least 30% of the soil covered with plant residues at planting, apply 4 pts./A as a broadcast spray.
If the soil coverage with plant residue is less than 30% at planting, a maximum of 3.2 pts./A may be applied.
On Soils Not Highly Erodible
Apply 4 pts./A as a broadcast spray.

FOR POSTEMERGENCE APPLICATION

If no atrazine was applied prior to crop emergence, apply 4 pts./A broadcast. If a postemergence treatment is required following an earlier herbicide application, the total atrazine applied may not exceed 2.5 lbs. active ingredient (5 pts. of this product) per acre per calendar year.

*Do not apply preplant in AL, AR, FL, GA, LA, MS, NC, NM, OK, SC, TN, or TX. Do not apply preemergence in NM, OK, or TX, except in northeast OK and the TX Gulf Coast and Blackland areas.

Where there are state/local requirements regarding atrazine use (including lower maximum rates and/or set-backs) which are different from the label, the more restrictive/protective requirements must be followed. Certain states may have established rate limitations within specific geographical areas. Consult your state lead pesticide control agency for additional information. It is a violation of this label to deviate from state use regulations. In case of planting failure, sorghum or corn may be replanted. Do not make a second broadcast application, or injury may occur. If originally applied in a band and sorghum or corn is replanted in untreated row middles, this product may be applied in a band to the second planting.

*For postemergence applications, if there has been no previous soil application to that crop, the maximum rate is 4 pts. per acre. If there has been no previous soil application to that crop, do not exceed a total of 5 pts. per acre per calendar year.

PREEMERGENCE BROADLEAF WEED CONTROL IN FURROW IRRIGATED BEDDED SORGHUM (AZ and CA only):

For preemergence control of broadleaf weeds such as ground cherry, lambsquarters, morningglory, mustard, pigweed and purslane, broadcast 1.6 to 2.4 pts. per acre. Use the lower rate on coarse-textured soils and soils low in organic matter and use the high rate on fine-textured soils and soils high in organic matter. Make application after bed preparation, during or after planting, but before sorghum and weeds have emerged and before the first furrow irrigation. Several irrigations should follow the application, making sure that all soil is thoroughly wet.

Precautions For Preemergence Applications of Atrazine 4L To Furrow Irrigated Bedded Sorghum Grown in AZ and CA:

To avoid possible sorghum injury, do not use on sand or loamy sand soils or on sorghum planted in the furrow. Additionally, applications made to sorghum growing on alkali soils or where cuts, fills or erosions have exposed calcareous or alkali subsoils, may result in crop injury. In case of crop failure, do not replant sorghum for eight months following application. Corn may be planted immediately.

Postemergence (Broadleaf and Grass Weed control): Apply before weeds exceed 1.5 inches in height at the rate indicated in Table 5. Application may be made up to sorghum reaching 12 inches in height.

TABLE 5
Postemergence Broadleaf and Grass Weed Control in Sorghum

Soil Texture	Minimum Height of Sorghum at Treatment	Broadcast Rate/ATRAZINE 4L
Sand or loamy sand	DO NOT USE	
Sandy loam	See directions for broadcast and weed control below	
Silt loam to sandy clay loams	Completely emerged	4 pts.
Clay and Pullman clay soils	At least 6 inches high	4 pts.
Silty clay loam and heavier soils	Completely emerged	4 pts.

*For postemergence applications, if there has been no previous soil application to the crop, the maximum rate is 4 pints per acre. If there has been a previous soil application to that crop, do not exceed a total of 5 pints per acre per calendar year.

POSTEMERGENCE BROADLEAF WEED CONTROL WITH ATRAZINE 4L PLUS EMULSIFIABLE OIL OR OIL CONCENTRATE IN WATER:

Broadcast: 2.4 pts. per acre for control of broadleaf weeds such as annual morning-glory, cocklebur, lambsquarters, mustard, pigweed, ragweed, smartweed and wild buckwheat. Application should be made before pigweed and lambsquarters reach 6 inches in height and before all other weeds reach 4 inches in height. In CO, western KS, NM, OK, TX, and desert regions of AZ and CA, apply when sorghum is 6-12 inches in height. In other areas, apply after sorghum reaches the three-leaf stage. Add emulsifiable oil at the rate of 1 gal. per acre for ground applications and 0.5 gal. per acre for aerial applications, or add 1 qt. per acre of oil concentrate for ground application. A cultivation may be necessary if all weeds are not controlled or if regrowth of weeds occurs.

For the list of weeds controlled, see ATRAZINE 4L Applied Alone—Corn or Grain Sorghum—Post-emergence with Emulsifiable Oil or Oil Concentrate in Water.

PRECAUTIONS FOR APPLICATION OF ATRAZINE 4L PLUS EMULSIFIABLE OIL OR OIL CONCENTRATE IN WATER TO SORGHUM—See "Precautions for applications with emulsifiable oil or oil concentrate in water" in Corn section.

POST-EMERGENCE BROADLEAF WEED CONTROL WITH ATRAZINE 4L PLUS SURFACTANT (CO, western KS, NM, OK, TX, and desert regions of AZ and CA only): Broadcast 2.4 pts. of ATRAZINE 4L plus .75-1.5 pts. of surfactant per acre after sorghum reaches 6 inches in height, but before weeds reach 1.5 inches in height. Apply only on sandy loams and fine-textured soils.

PRECAUTIONS FOR ALL APPLICATIONS TO SORGHUM

1. Postemergence application to sorghum must be made before sorghum reaches 12 inches in height.
2. The maximum application rate for sorghum is 2.5 lbs. active ingredient per acre per calendar year. Application for quackgrass suppression in sorghum is restricted to a spring application only. No fall applications are permitted.

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3. Heavy rains immediately following application tend to result in excessive concentrations of herbicide in seed furrow, resulting in possible crop injury. Applications to furrow-planted sorghum should not be made until furrows are leveled (plow-in). Deep planter marks or seed furrows should also be leveled before application.
4. Application made to sorghum growing under stress caused by minor element deficiency or to sorghum growing on highly calcareous soils may result in crop injury.
5. Do not graze or feed forage from treated areas for 21 days following application or illegal residues may result.
6. Following harvest of a treated crop, plow (moldboard or disk-plow) and thoroughly till the soil in the fall or spring to minimize possible injury to rotational spring-seeded crops, regardless of rate used.
7. Injury may occur if both this herbicide, preplant surface, preplant incorporated, or preemergence, and an at-planting systemic insecticide applied in-furrow are used.

For applications to furrow-irrigated bedded sorghum in AZ and CA and for postemergence applications plus emulsifiable oil, see additional precautions under these sections of this label.

Suggestions for Rotational Crops.

See "Suggestions for Rotational Crops" at the end of Corn Section.

TANK MIXTURES FOR GRAIN SORGHUM

ATRAZINE 4L + METOLACHLOR on Grain Sorghum (Cyometrinil-Treated Seed)

The ATRAZINE 4L + metolachlor tank mixture provides control of weeds listed on label under the ATRAZINE 4L + metolachlor on corn tank mix section.

Apply ATRAZINE 4L + metolachlor preplant incorporated or preemergence using the appropriate rates from Table 6. Preplant incorporated or Preemergence. Follow the use instructions on the metolachlor label immediately preceding Table 6.

TABLE 6:
ATRAZINE 4L + Metolachlor - Grain Sorghum*

Soil Texture	Broadcast rates per acre	
	Less than 1.5% organic matter ATRAZINE 4L* + Metolachlor	1.5% organic matter or greater ATRAZINE 4L + Metolachlor
Coarse sand, sandy sand, sandy loam	Do Not Use	Do Not Use
Medium loam silt, silt loam	Do Not Use	2.35 pts. 4L + 1.5 pts.
Fine: silty clay, clay, sandy clay, silty clay, sandy clay, clay, clay	2.35 pts. 4L + 1.5 pts.	2.9-3.25 pts. 4L + 1.75-2 pts.

*On highly erodible soils, as defined by the Soil Conservation Service (SCS), if conservation tillage is utilized (>30% plant residue), the maximum rate is 4 pts. per acre. If plant residue is <30%, the maximum rate is 3.2 pts. per acre.

On soils not highly erodible, the maximum rate is 4 pts. per acre.

*Do not use in NM, OK, or TX except in northeast OK and the Texas Gulf Coast areas. Do not apply preplant incorporated in AZ or the Imperial Valley of CA.

Precautions:

1. Applications of atrazine + metolachlor on highly alkaline soils or on eroded areas where calcareous subsoils are exposed may cause sorghum injury.
2. If sorghum seed is not properly treated with cyometrinil, atrazine + metolachlor will severely injure the crop.
3. Under high soil moisture conditions prior to sorghum emergence, injury may occur following the use of atrazine + metolachlor. The crop will normally outgrow this effect.
4. Do not use atrazine + metolachlor on sorghum grown under dry mulch tillage or injury may occur.

Rotational Crops: Refer to the crop rotation instructions on the metolachlor label for metolachlor + atrazine tank mixtures on corn.

WINTER WEED CONTROL IN TEXAS

For postemergence control of winter weeds only, such as henbit, seeding dock, and annual thistle on fall bedded land in the Gulf Coast and Blacklands of Texas. Apply 0.8-1 qt. A postemergence to the weeds in November or December to land that will be planted to corn, grain sorghum or forage sorghum the following spring. For best results add a suitable surfactant such as Sun-Ac 820 at the rate of 0.5% of the spray volume, an emulsifiable oil at the rate of 1.0% of the spray volume, or an oil concentrate at the rate of 1 qt. per acre.

Normal weed control programs may be used in the following corn, grain sorghum or forage sorghum crop.

Note: Do not plant any crops except corn, grain sorghum, or forage sorghum the spring following this treatment, or illegal residues may result.

CHEMICAL FALLOW-ATRAZINE 4L ALONE

WHEAT-SORGHUM-FALLOW

This treatment controls annual broadleaf and grass weeds following wheat harvest; and in the following sorghum crop when grown under minimum tillage.

Apply 6 pts. to wheat stubble immediately following wheat harvest. If weeds are present, remove them with a sweep plow or other suitable implement after application or use an approved contact herbicide before or after application of ATRAZINE 4L. Plant sorghum into wheat stubble the following spring with minimum disturbance of the soil. Use a surface planter or a planter leaving a shallow furrow. If weeds are present at planting, remove them with a sweep plow or other suitable implement before planting. For the list of weeds controlled, see ATRAZINE 4L Applied Alone—Corn or Grain Sorghum—Preplant Surface-Applied, Preplant Incorporated, or Preemergence.

Precautions:

1. Use only on silt loam or finer textured soil.
2. Wheat-sorghum-fallow cropping sequence must be followed.
3. Do not apply following sorghum harvest.

Note: To avoid illegal residues, do not graze or feed forage from treated areas to livestock. To avoid illegal residues and crop injury do not plant any crop other than those on this label within 15 months following treatment.

WHEAT-CORN-FALLOW (KS, NE): This product controls cheatgrass (downy brome chess), kochia mustards, pigweed, Russian thistle, wild lettuce, wild sunflower, and volunteer wheat during period after wheat harvest.

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Weed control may extend into following corn crop grown under minimum tillage.

Follow directions for use, notes, and precautions in the *Wheat-Sorghum-Fallow* section above, substituting corn for references to sorghum.

WHEAT-FALLOW-WHEAT (CO, KS, MT, NE, ND, SD, and WY): For pre-emergence and control of cheatgrass (downy brome, chess), common lambsquarters, field pennycress, Kochia, mustard, Russian thistle, wild lettuce, and suppression of volunteer wheat during fallow period of a wheat-fallow-wheat rotation, broadcast 1-2 pts./A on all soils except those listed under "Precautions".

For control of pigweed and wild sunflower, use the higher rate. Apply to stubble ground. Treat only once during same fallow period.

TANK MIXTURES FOR CHEMICAL FALLOW

WHEAT-SORGHUM-FALLOW OR WHEAT-CORN-FALLOW (KS, NE)

ATRAZINE 4L PLUS PARAQUAT

If weeds are present at application, a tank mix with paraquat may be used. Broadcast 1-2 pts. of this product plus 1-2 pts. of paraquat in 20-60 gals. of water/A by ground equipment. Add 0.5-1 pt. of a nonionic surfactant, such as Surf-Ac 820, per 100 gals. of spray mixture. Add this product to spray tank first and thoroughly mix with water. Then add paraquat followed by surfactant. Use the 2 pt. rate of paraquat if weeds are 4-6 inches tall. This mixture will not control weeds taller than 6 inches. Apply to stubble ground. Treat only once during same fallow period. Refer to paraquat label for further directions, precautions, and limitations.

WHEAT-FALLOW-WHEAT (CO, KS, MT, ND, SD, and WY)

ATRAZINE 4L PLUS PARAQUAT

If weeds are present at application, a tank mix with paraquat may be used. Broadcast 1-2 pts. of ATRAZINE 4L plus a suitable amount of paraquat in 20 - 60 gals. of water/A by ground equipment. Add 0.5-1 pt. of a non-ionic surfactant, such as Surf-Ac 820, per 100 gals. of spray mixture. Add this product to spray tank first and thoroughly mix with water. Then add paraquat, followed by surfactant. Use the higher rate of paraquat specified on the label if weeds are 4-6 inches. Apply to stubble ground. Treat only once during same fallow period. Refer to paraquat label for further directions, precautions, and limitations.

If weeds are present at application and this product is used alone, use either an approved contact herbicide before or after treatment, or tillage after treatment.

Use tillage to control weeds which escape during fallow period. Till before planting. For this product applied alone or in tank mixture with paraquat, plant at least 2 inches deep and 12 months or more after application.

Precautions:

1. Do not use on sand soil.
2. Do not treat eroded hillsides, caliche and rocky outcroppings, or exposed calcareous subsoil.
3. Do not treat soils of the Rosebud and Canyon Series in western NE and adjoining counties in CO and WY.
4. Do not treat soils with calcareous surface layers.
5. Avoid spray overlap.

Note: Do not graze treated areas within 6 months after application or illegal residues may result.

AERIAL APPLICATION: In order to assure that spray will be controllable within the target area when used according to label directions, make applications at a maximum height of 10 ft. using low drift nozzles at a maximum pressure of 40 psi and restrict application to periods when wind speed does not exceed 10 mph. To assure that spray will not adversely affect

adjacent sensitive nontarget plants, apply ATRAZINE 4L alone by aircraft at a minimum upwind distance of 400 ft. from sensitive plants.

ROADSIDES

To control certain annual weeds in established perennial grasses along roadsides in CO, KS, MT, NE, ND, SD, and WY, including cheatgrass (downy brome, chess), common (annual) broomweed, little barley, medusahead, sagewort, and tumble mustard, broadcast 2 pts./A in a minimum of 10 gallons of water by ground equipment in the fall before ground freezes, or after thawing in the spring, but before the established grasses green-up and before weeds emerge. Examples of desirable established grasses include big bluestem, bluegrass, bromegrass, buffalo grass, crested wheatgrass, Indiangrass, little bluestem, side-oats grama, switchgrass, and Western wheatgrass. Apply only once per year. Temporary discoloration or other form of injury to the desirable perennial grasses may occur following application.

Note: To avoid illegal residues:

1. Do not cut or feed roadside grass hay.
2. Do not allow livestock to graze treated areas.

SUGARCANE

For control of many broadleaf & grass weeds, such as crabgrass, jungle rice, wire grass, foxtail, amaranths, Flora's paintbrush, fireweed and similar plants. Broadcasts: 2-4 qts. per acre at time of planting or ratooning, but before the cane emerges.

Broadcast: aerally in a minimum of 5 gal. of spray per acre, or broadcast or band by ground equipment in a minimum of 20 gal. per acre, unless indicated otherwise. One additional application may be made over the cane as it emerges, and two additional applications may be made interline after emergence, as a directed spray. Repeat treatments, where needed, may be applied broadcast, band, or interline as suggested with the final application being prior to "close-in." Do not exceed the rate of herbicide suggested for any one crop of sugarcane.

Note: Where high rates of atrazine are used alone, apply in a minimum of 1 qt. of water for each 1 qt. of ATRAZINE 4L applied per acre.

AERIAL APPLICATION: In order to assure that spray will be controllable within the target area when used according to label directions, make applications at a maximum height of 10 ft. using low drift nozzles at a maximum pressure of 40 psi and restrict application to periods when wind speed does not exceed 10 mph. To assure that spray will not adversely affect adjacent sensitive nontarget plants, apply ATRAZINE 4L alone by aircraft at a minimum upwind distance of 400 ft. from sensitive plants.

FLORIDA

For control of emerged Peltitory Weeds (artillery weed). Apply 0.8 to 1.2 pts./A in 40 gals. of water per acre as a directed spray, by ground equipment prior to "close-in". Add 2 qts. of surfactant for each 50 gals. of spray and be sure weed foliage is thoroughly covered.

For control of alexandergrass, large crabgrass, peltitory (artillery) weed, and spiny amaranth, use one of the following methods at planting or ratooning.

1. Apply 8 pts./A pre-emergence. Follow with one or two applications, as needed, post-emergence to sugarcane and weeds, at 4 pts./A. Treat before weeds exceed 1.5 inches in height.

2. Apply 1-3 times, as needed, at 4 pts./A post-emergence to sugarcane and weeds. Treat before weeds exceed 1.5 inches in height.

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LOUISIANA

For Control of annual weeds during the summer fallow period, apply 4 pts./A to weed-free beds immediately after bed formation. Follow normal weed control after planting.

Precautions: To avoid crop injury:

1. Do not apply more than 10 qts./A to any one crop of sugarcane
2. If making 4 pts./A application during summer fallow period do not exceed 8 qts./A during remainder of the growing season, or illegal residues may result

TEXAS

Use ATRAZINE 4L for control of barnyardgrass, pigweed, purslane and sunflower in plant or ratoon sugarcane

Apply 8 pts./A of ATRAZINE 4L preemergence. Follow with one or two applications, as needed, at 6 pts./A postemergence to sugarcane and weeds.

For best results when weeds are emerged, add a nonionic surfactant, such as Surf Ac B20, at a concentration of 2 qts./100 gals. to the spray and apply before weeds exceed 1.5 inches in height.

Precautions:

1. Do not apply ATRAZINE 4L after "close-in."
2. Do not apply more than 20 pts. of ATRAZINE 4L to any one crop of cane
3. Injury to sugarcane may occur when under moisture stress, when soil is of low adsorptive capacity, or when land is first cropped to sugarcane.

CONIFERS

For control of annual broadleaf and grass weeds prior to transplanting, after transplanting or in established conifers (including Douglas fir, grand fir, noble fir, white fir, Austrian pine, bishop pine, Jeffrey pine, knobcone pine, loblolly pine (shore pine), monterey pine, ponderosa pine, Scotch pine, slash pine, blue spruce, and Sitka spruce). Broadcast 4-6 pts. in a minimum of 5 gals. of water per acre by air or 10 gals. by ground before weeds are 1.5 inches tall. Apply to established trees between fall and early spring while trees are dormant. For applications prior to transplanting allow sufficient precipitation to activate atrazine before transplanting.

In areas where spring and summer rainfall is inadequate to activate atrazine, apply during fall prior to spring transplanting.

For the list of weeds controlled, see ATRAZINE 4L Applied Alone - Corn or Grain Sorghum - Preplant Surface Applied, Preplant Incorporated or Pre-emergence.

QUACKGRASS CONTROL: Broadcast 8 pts. in a minimum of 5 gals. of water per acre by air or 10 gals. by ground between fall and early spring while trees are dormant and before quackgrass is more than 1.5 inches tall.

Precautions:

1. In areas west of the Rocky Mountains (except the Great Basin), grazing may begin 7 months after a fall application or 3 months after a winter or spring application.
2. To prevent illegal residues, do not graze treated areas of the Great Basin, or areas east of the Rocky Mountains.
3. Temporary injury to trees may occur following use of this product on coarse-textured soil.
4. To avoid crop injury, do not apply to seedbeds
5. Also apply only once per year.

AERIAL APPLICATION: In order to assure that spray will be controllable within the target area when used according to label directions, make applications at a maximum height of 10 ft. above vegetation, using low drift nozzles at a maximum pressure of 40 psi and restrict application to periods

when wind speed does not exceed 10 mph. To assure that spray will not adversely affect adjacent sensitive nontarget plants, apply ATRAZINE 4L by aircraft at a minimum downwind distance of 400 ft. from sensitive plants.

ST. AUGUSTINE GRASS, CENTIPEDE GRASS, AND DORMANT BERMUDA GRASS

ATRAZINE 4L controls spurweed, Florida betony, annual bluegrass and many other problem weeds in home lawn, ornamental and recreational turf and other noncrop areas such as highway right-of-ways and similar areas. ATRAZINE 4L may be applied with any pump-up or compressed air type sprayer or with a hose-on type sprayer.

ATRAZINE 4L will control BOTH emerged weeds and weeds from seeds. Rain or watering within 2 to 3 days of application may decrease the effectiveness on emerged weeds. However, for control of weeds from seeds rainfall or watering is necessary within 7 to 10 days after treatment. Caution: Do not apply within the active root zone of vegetables or desirable ornamental plants such as camellias, azaleas, boxwoods, etc. However, ATRAZINE 4L treatments should not normally cause injury to medium or large shrubs or trees in the landscape. Do not plant any crop (flower or vegetable gardens) to treated areas for 18 months or injury may result.

WEEDS CONTROLLED OR SUPPRESSED

Annual Bluegrass (Poa Annua), Chickweed (Common and Mouseear), Crabgrass, Cransbill, Guineaweed, Dichondra, Florida Betony, Henbit, Knotweed, Lespedeza, Moneywort, Mustards, Narrowleaf Vetch, Parsley-Piert, Sandspur, Smutgrass, Spurge, Spurweed, Sunnecrest, Woodsorrel and various annual clovers.

TIMING OF APPLICATION

The timing of applications to achieve maximum control may vary quite a bit with different weed species. The following application times are suggested for certain problem weeds.

Spurweed: The best control of spurweed can be obtained by applying ATRAZINE 4L when spurweed has emerged (December and January). **Florida Betony:** This weed emerges in the fall so an application of ATRAZINE 4L in mid to late October followed with a second application in mid to late February would give best control.

Dichondra, Moneywort: The best control of these weeds can be obtained by applying ATRAZINE 4L in early April followed with a second application in July. Do not apply to growing Bermuda Grass.

Applications for Spurweed or Florida Betony generally will give control or suppression of the other weeds listed. However, as a general rule ATRAZINE 4L will give the best control when applied to young tender weeds or just prior to weed emergence.

ST. AUGUSTINE AND CENTIPEDE GRASSES

ATRAZINE 4L may be applied to established St. Augustine and centipede grasses during both the dormant and the growing season. Best results are usually obtained in the early spring or dormant periods when weeds are small or have not emerged. Follow rates below.

DORMANT BERMUDA GRASS

ATRAZINE 4L may be applied to Bermuda grass during the dormant season only. Applications to Bermuda grass during the growing season will cause injury. Follow rates below.

RATE OF APPLICATION

Determine the total area to be sprayed and base rate of application on the chart below. Avoid overlapping spray pattern while treating. Shake contents well before mixing.

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Area To Be Treated	Amount of ATRAZINE 4L
500 sq. ft.	1.5 tablespoons
1,000 sq. ft.	3 tablespoons (1.50 oz.)
3,000 sq. ft.	4.5 ounces
5,450 sq. ft.	8 ounces
10,900 sq. ft.	1 pint
(0.25 acre)	
1 Acre	2 Quarts

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 ATRAZINE 4L after October 1 before emergence of winter annual weeds for control of annual bluegrass, burclover, carpet burweed, chickweed, corn speedwell, henbit, hop clover, and spurge. ATRAZINE 4L will control annual bluegrass even if it is emerged at time of treatment. For control of summer annual weeds listed in the preemergence portion of the ATRAZINE 4L Applied Alone—Corn or Grain Sorghum—Preplant Surface-Applied, or Preplant Incorporated, or Preemergence, section of this label, also apply ATRAZINE 4L 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 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 the other weeds named above. Do not exceed 1 qt. per acre per treatment on newly sprigged turfgrass or on hybrid bermudagrass such as Tiflawn, Tifway, and Ommond.

For continued summer annual weed control, apply another 1 qt. 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 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 Virginia Coastal Plains) or west of the high rain: 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 qts. product/A within 12 months of seeding bermudagrass.

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

TURF GRASSES FOR SOD (FLORIDA ONLY)

St. Augustinegrass, Centipedegrass, and Zoysia Grass. Broadcast 4-8 pts./A according to soil texture to control those weeds listed under ATRAZINE 4L Applied Alone—Corn or Grain Sorghum—Preplant Surface-Applied, or Preplant Incorporated, or Preemergence.

Muck or		Old Beds within 2 days after lifting sod
Peat	8 pts	New Beds 3-4 days after sprigging or plugging
Sandy		Old Beds within 2 days after lifting sod
Soil	4 pts	New Beds 7-10 days after sprigging or plugging

If weeds regrow, apply an additional 4 pts./A on muck or peat, or 2 pts./A 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 newly sprigged turfgrass, temporary slowing of growth may follow application.

MACADAMIA NUTS

For preemergence control of many broadleaf and grass weeds, including crabgrass, foxtail, wiregrass, Flora's paintbrush, spanishneedles, and fireweed, broadcast 4-8 pts./A before harvest and before weeds emerge. Repeat as necessary. Do not spray when nuts are on ground during harvest period. Do not apply by air.

GUAVA

Use only on established plantings which are at least 18 months old. Apply as a directed spray at 4-8 pva of ATRAZINE 4L in 20-50 gals. of spray mix pre-emergence or early postemergence to weeds. When applying post-emergence, the use of a surfactant and greater spray volume (80-100 gals. of spray mix per acre) may enhance weed control.

This product controls many annual broadleaf and grass weeds, including fireweed, purslane, scarlet pimpernel, spanishneedles, and sowthistle.

Notes: To avoid illegal residues:

1. Do not allow spray to contact foliage or fruit.
2. Do not apply more frequently than at 4 month intervals.
3. Do not apply more than 16 pts. of ATRAZINE 4L per year.

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STORAGE AND DISPOSAL

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

STORAGE INSTRUCTIONS:

Store in a cool dry location. Avoid storage at high temperatures. Keep container tightly sealed. Avoid contamination with acids or alkalis. Do not stack more than 2 pallets high to prevent crushing. Keep containers away from any source of puncture. Store in original container only.

Pesticides should be separated during storage to prevent cross contamination of other pesticides, fertilizer, food and feed. Storage area should preferably be locked to prevent admittance by unauthorized or unknowledgeable persons. If the container is damaged and leaking or material has been spilled follow these procedures:

1. Cover spill with absorbent material.
2. Sweep into disposal container.
3. Wash area with detergent and water and follow with clean water rinse.
4. Do not allow to contaminate water supplies.
5. Dispose of according to instructions 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: Triple rinse (or equivalent). Then offer for recycling or reconditioning or puncture and dispose of in a sanitary landfill, or by incineration or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

WARRANTY—CONDITION OF SALE:

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.

BEST AVAILABLE COPY