MAR | 2002

Mr. Patrick McGourty Registration Manager PLATTE CHEMICAL COMPANY 419 18<sup>th</sup> Street Greeley, CO 80632-0667

SUBJECT:

Label Amendment

Atrazine 4L Herbicide, EPA Reg. No. 34704-69

Your Application Dated October 23, 2001

The above mentioned amendment submitted in connection with registration under Federal Insecticide, Fungicide, and Rodenticide Act, as amended is acceptable provided you make the following changes listed below:

- Under the "PPE" and the "Agricultural Use Requirements" box change
  "waterproof gloves" to "chemical resistant gloves such \_\_\_\_\_\_or\_\_
  or\_\_\_\_ or \_\_\_\_". [Use PR Notice 93-7 for procedure for selecting materials for Category A.]
- 2. Change all "Precautions for Application......" and "Precautions" to "Use Precautions" or "Application Precautions".

A stamped copy is enclosed for your records. Please submit one(1) final printed copy for the above mentioned label before releasing the product for shipment. The amended labeling supersedes all previously accepted ones.

∕-\$incerely

James Tompkins

Product Manager, (25)

Hefbicide Branch

Registration Division (7505C)

#### Enclosure

		c	ONCURRENCES	 	
SYMBOL •	7505C				
SURNAME >	MINOR, E.			<u> </u>	!
DATE •_	Feb 27, 2002				

EPA Form 1320-1 (12-70)

OFFICIAL FILE COPY

#### RESTRICTED USE PESTICIDE

(GROUND AND SURFACE WATER CONCERNS)

FOR RETAIL SALE TO AND USE ONLY BY CERTIFIED APPLICATORS OR PERSONS UNDER THEIR DIRECT SUPERVISION, AND ONLY FOR THOSE USES COVERED BY THE CERTIFIED APPLICATOR'S CERTIFICATION.

THIS PRODUCT IS A RESTRICTED USE HERBICIDE DUE TO GROUND AND SURFACE WATER CONCERNS. USERS MUST READ AND FOLLOW ALL PRECAL TIONARY STATEMENTS AND INSTRUCTIONS FOR USE IN ORDER TO MINIMIZE POTENTIAL FOR ATRAZINE TO REACH GROUND AND SURFACE WATER



# ATRAZINE 4L

## **HERBICIDE**

For Season-Long Weed Control In Corn, Sorghum and Certain Other Crops.

ATRAZINE 4L CONTAINS 4 LBS. ACTIVE INGREDIENTS PER GALLON

## KEEP OUT OF REACH OF CHILDREN CAUTION

See Below For Additional Precautionary Statements (

EPA REG. NO. 34704-69

EPA EST. NO. 34704-NB-2

NET CONTENTS 2 1/2 GAL. (9.46 L)

### EXF 10F0

## PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS

### CAUTION

Harmful if swallowed or absorbed through the skin. Avoid contact with skin, eyes, or clothing. Keep away from food and feedstuffs. Personal Protective Equipment:

Applicators and other handlers (other than mixers and loaders) must wear: long-sleeved shirt and long pants, waterproof gloves, and chemical-resistant footwear plus socks.

Mixers and loaders must wear: long-sleeved shirt and long pants, waterproof gloves, chemical-resistant footwear plus socks, and protective eyewear.

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

Engineering controls statements:

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

#### **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 out side of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

with COMMENTS in EPA Letter Dated MAR 2002

#### **FIRST AID**

If swallowed:	<ul> <li>Call a poison control center or doctor immediately for treatment advice.</li> <li>Have a person sip a glass of water if able to swallow.</li> <li>Do not induce vomiting unless told to do so by the poison control center or doctor.</li> <li>Do not give anything by mouth to an unconscious person.</li> </ul>
If inhaled:	<ul> <li>Move person to fresh air.</li> <li>If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth- to-mouth, if possible.</li> <li>Call a poison control center or doctor for further treatment advice.</li> </ul>
If on skin or clothing:	Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.
If in eyes:	<ul> <li>Hold eye open and rinse slowly and gently with water for 15 –20 minutes.</li> <li>Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>

FOR A MEDICAL EMERGENCY INVOLVING THIS PRODUCT CALL: 1-800-228-5635, EXT. 136, OR CALL COLLECT, 612-851-8180, EXT. 136. Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

Note to Physician: There is no specific antidote for atrazine. If this product is ingested, induce emesis or lavage stomach. The use of an aqueous sturry of activated charcoal may be considered.

#### **ENVIRONMENTAL HAZARDS**

This pesticide is toxic to aquatic invertebrates. For terrestrial uses, 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. Keep out of lakes, streams, and ponds. Do not contaminate water when disposing of equipment washwaters.

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.

Ground water contamination may be reduced by diking and flooring of permanent liquid bulk storage sites with an impermeable material.

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 takes and reservoirs. This product may not be applied aerially or by ground within 66 feet of the points where field surface water runoff enters perennial or intermittent streams and rivers or within 200 ft, around natural or impounded takes and reservoirs. If this product is applied to highly erodible land, the 66 foot buffer or

Fundicide, and Bodenticide Act as amended, for the pesticide registered under EPA Reg. No.

set-back froin runoff points must be plante. To crop or seeded with grass or other suitable crop

There there are state/local requirements regarding atrazine use (including lower maximum rates and/or higher set-backs) which are different from the label, the more restrictive/protective requirements apply.

#### DIRECTIONS FOR USE

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

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

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

#### AGRICULTURAL USE REQUIREMENTS

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

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 12 hours.

Exception: if the product is soil-injected or soil incorporated, the Worker Protection Standard, under certain circumstances, allows workers to enter the treated area if there will there will be no contact with anything that has been treated.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is: coveralls, waterproof gloves, and chemicalresistant footwear plus socks.

#### NON-AGRICULTURAL USE REQUIREMENTS

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

Do not enter treated area until sprays have dried.

#### STORAGE AND DISPOSAL

PROHIBITIONS: Do not contaminate water, food, or feed by storage or disposal. Do not store under conditions which might adversely affect the container or its ability to function properly.

STORAGE: Do not store below temperature of 0°F. If frozen, warm to 40°F. and reconstitute before using by rolling or shaking the container. Store in safe manner. Store in original container only. Keep container tightly closed when not in use. Reduce stacking height where local conditions can affect package strength. Personnel should use clothing and equipment consistent with good pesticide handling.
PESTICIDE DISPOSAL: Wastes resulting from the use of this product may be

disposed of on site or at an approved waste disposal facility.

CONTAINER DISPOSAL: Plastic: Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or incineration, or, if allowed by state and local authorities, by burning. If burned stay out of smoke. Metal: Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities

#### **GENERAL INFORMATION**

ATRAZINE 4L herbicide controls\* many annual broadleaf and grass weeds in the crops included on this label. ATRAZINE 4L may be applied before or after weeds

"Important Note: 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. These weeds may include lambsquarters, pigweed, black nightshade, kochia, and others. Where this is known or suspected, we recommend the use of this product in combination with other registered herbicides which are not triazines. Consult your State Agricultural Extension Service about specific weed resistance to atrazine in your area and weed control recommendations. Within the specific crop directions on this label, certain weeds are indicated for suppression only. Weed suppression is a visual reduction in weed competition (reduced population and/or vigor) as compared to an untreated area. Degree of suppression will vary with rate used, size of weeds, and environmental conditions following treatment.

In each case where a range of rates is given, the lower rate should be used on light

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soils low in organic matter, and the higher rate should be used on heavy soils high in organic matter.

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.

Care should be taken to avoid using ATRAZINE 4L where adjacent desirable trees. shrubs, or plants might be injured.

Note: Platte Chemical Co. does not recommend the use of ATRAZINE 4L in combination with other herbicides or oils except as specifically described on this label or other literature distributed by Platte Chemical Co.

#### APPLICATION PROCEDURES

#### **Ground Application**

For the most uniform distribution of broadcast applications use 80° flat fan type nozzles. For band applications, use flat fan even spray nozzles. Screens and strainers should be no liner than 50 mesh. Use a pump with capacity to (1) provide sufficient hydraulic agitation during mixing and application to keep the material in suspension and (2) maintain 35-40 psi operating pressure. Use a minimum of 5 gallons of water per acre for preplant incorporated, pre-emergence and post (without oil or surfactant) applications. Use a minimum of 10 gallons of water per acre for all postemergence applications combined with oil or surfactant.

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

Band width in inches Rate/A for Amount needed Row width in inches for band broadcast treatment treatment

#### **Aerial Application**

For preplant and pre-emergence broadcast treatments, apply at a 1:1 ratio of ATRAZINE 4L to water (example: recommendation calls for 1 quart of product and is mixed with 1 quart of water) to be applied per acre. For postemergence treatments, on corn and sorghum, apply the recommended rate of ATRAZINE 4L or ATRAZINE 4L plus oil in a minimum of 2 gallons of water per acre. Avoid applications under conditions where uniform coverage cannot be obtained or where excessive drift may occur.

Avoid application directly to animals. Flagmen or loaders should avoid inhalation of spray mist.

With fixed-wing aircraft or helicopter application, an exactly even swath deposition cannot be achieved, and consequently crop injury or pesticide nonperformance may result wholly or in part. Do not apply by air during periods of thermal inversion.

Chemication: Do not apply this product through any type of irrigation system.

#### ATRAZINE 4L in water application

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

#### 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 preplant applications of ATRAZINE 4L on corn or sorghum. Mixing should be accomplished as described under water applications. Do not apply after corn or sorghum has emerged as there is danger of liquefied tertilizers causing crop injury.

IMPORTANT - Check the compatibility of this product with liquid lertilizers and/or nitrogen solutions before use. Prepare the proposed mixture on a small scale and evaluate its suitability for spraying before mixing a large quantity.

#### Application in water plus emulsifiable oil or oil concentrate

Adding emulsifiable oil or oil concentrate to postemergence water-based sprays may improve weed control in corn and sorghum. However, under certain conditions, use of either emulsifiable oil or oil concentrate may seriously damage corn or sorghum. To minimize this possibility, follow directions, procedures, and precautions below. Use a crop oil designed for use with this product containing 1-2% suitable emulsifier, or a suitable crop oil concentrate designed for use with this product and containing not more than 20% emulsifier or surfactant blend. Several oils and crop oil concentrates of these types are on the market. Emulsifiable oil and oil concentrate contaminated with water orother materials can cause compatibility problems and/or crop injury.

#### Precautions for Application of ATRAZINE 4L plus Emulsifiable Oil or Oil Concentrate in Water to Corn and Sorghum

- 1) Do not use oil in ATRAZINE 4L sprays when crop is under stress from prolonged cold, wet weather, poor fertility or other factors or when crop is wet and succulent from recent rainfall as crop injury may occur.
- 2) Do not use oil in ATRAZINE 4L 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 because they may 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 make more than one application of ATRAZINE 4L and emulsifiable oil in water per season.

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#### ATRAZINE 4L HERBICIDE EPA REG. NO. 34704-69

Mixing procedures - all uses: (1) Be sure sprayer is clean and not contaminated with other products like 2.4-D or other materials, as crop injury may result. (2) Fill tank to ½ full with clean water. (3) Start agitation. (4) Pour product directly from container into tank. (5) Add emulsiflable oil, or oil concentrate, or a tank mix herbicide. (6) Finish filling tank with water, nitrogen solution, or liquid fertilizer. (7) Empty tank as completely as possible before refilling to prevent buildup of oil or emulsifiable concentrate residue in tank. Maintain agitation to avoid separation of other materials from water, nitrogen solution, or liquid fertilizer remaining in tank. (8) If an oil or oil concentrate film starts to build up in tank, drain it, and clean with strong detergent solution or solvent. (9) Clean sprayer thoroughly immediately after use by flushing system with water containing a detergent. (10) For liquid nitrogen or liquid fertilizer, use suction screens of 16-mesh or coarser.

#### **ROTATIONAL CROP RESTRICTIONS FOR ALL USES**

- Land treated with ATRAZINE 4L should not be planted to any crop except corn or sorghum until the following year or injury may occur.
- 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 Intermountain areas of the West where rainfall is sparse and erratic or where irrigation is required, use ATRAZINE 4L only when corn or sorghum is to follow corn or sorghum, or a crop of untreated sorghum or corn is to precede other rotational crops.
- 4) In Western Minnesota and Eastern parts of the Dakotas, Nebraska, and Kansas, corn or sorghum treated with ATRAZINE 4L should not be followed with soy beans if the broadcast rate applied was more than 4 pts. per acre (or comparable rate in a band) or injury may occur.
- 5) Injury may occur to soybeans planted in North Central lowa and South Central Minnesola the year following an ATRAZINE 4L application on Harps, Canisteo, Stroden or other soils having calcareous surface layer.
- 6) Do not plant sugar beets, tobacco, vegetables, (including dry beans), springseeded small grains or small-seeded legumes and grasses the year following ATRAZINE 4L application or injury may occur.

#### WEEDS CONTROLLED OR SUPPRESSED BY ATRAZINE 4L ALONE IN CORN AND SORGHUM

Preplant, Preemergence or Postemergence at 4 Pints Per Acre (See CORN and SORGHUM sections of label);

Grass weeds:

Barnyard grass (watergrass)\*\*

Giant foxtail\* Green Foxtail\*

Large (hairy) crabgrass\*

Wild oats

Witchgrass (Panicum capillare) \*\*

Yellow loxtail

Broadleaf Weeds:

Cocklebur\* Kochia\*

Lambsquarters\*
Morningglory (annual)

Mustard Nightshade Pigweed\* Purslane Ragweed

Velvetleaf (buttonweed)\*\*

Note: For best, control of Cocklebur and Velvetleal, do not apply less than the recommended 4 pints per acre.

Postemergence With Emulsifiable Oil or Oil Cooncentrate in Water at 2% Pints Per Acre

Broadleaf Weeds:

Cocklebur\* Lambsquarters\* Morningglory (annual)

Mustard
Pigweed\*
Ragweed
Smartweed
Wild Buckwheat

### MAXIMUM RATES PRIOR TO CORN OR SORGHUM EMERGENCE

For soil applications prior to crop emergence (including early preplant, preplant incorporated, preplant surface, at planting or pre-emergence) the following maximum rates apply to the total of all atrazine treatments:

Soil Erodibility Classification*	Plant Residue Amount	Maximum Rate Per Acre
Highly erodible	30% or more (conservation tillage program)	2 lbs. active ingredient
	Less than 30% (conventional tillage program)	1.6 lbs. active ingredient
Not highly prodible	No limit	2 lbs. active ingredient

<sup>\*</sup>As defined by the Soil Conservation Service

#### MAXIMUM RATES AFTER CORN OR SORGHUM EMERGENCE

For postemergence applications, the following maximum rates apply to the total of all atrazine treatments:

Previous Soil Application Of Atrazine To Crop	Total Maximum Rate Per Acre Per Calendar Year	
No	2 lbs. active ingredient post- emergence	
Yes	S lbs. active ingredient com- biried from soil and postemer- gence applications	

ATRAZINE 4L contains 0.5 fb. active ingredient per pint.

#### CORN

ATRAZINE 4L may be applied either before planting, at planting or after planting at the rate indicated in Table 1.

For preplant and preemergence applications, nitrogen solutions or complete liquid fertilizers may replace all or part of the water as a carrier of ATRAZINE 4L. Do not apply after corn has emerged as there is danger of liquid fertilizer causing crop injury.

PREPLANT: Broadcast in the spring after plowing at the rate indicated in Table 1A.

Apply 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: Apply during or shortly after planting prior to weed emergence at the rate indicated in Table 1A.

POSTEMERGENCE: Apply before weeds exceed 1½ inches in height and before corn is over 12 inches tall, at the rate indicated in Table 18. When using nitrogen solutions, direct the spray to avoid corn foliage injury. Maintain agitation in spray tank during application.

## TABLE 1 A. FOR ALL SOIL APPLICATIONS PRIOR TO CORN EMERGENCE

(including early preplant, preplant incorporated, preplant surface, at planting or preemergence)

Soil Erodibility Classification*	Plant Residue Amount	Maximum Rate Per Acre
Highly erodible	30% or more (conservation tillage program)	4 Pints
	Less than 30% (conventional tillage program)	31/s Pints
Not highly erodible	No limit	4 Pints

<sup>\*</sup>As defined by the Soil Conservation Service

<sup>\*</sup> Maximum rate limitations and local resistance may result in suppression only or lack of control. Refer to IMPORTANT NOTE within GENERAL INFORMATION SECTION of this label.

Suppression or partial control only on medium and fine textured soils.

#### B. FOR CORN POSTEMERGENCE APPLICATION

Previous Soil Application Of Atrazine To Crop	Total Maximum Rate Per Acre Per Calendar Year	
No	4 Pints postemergence	
Yes	5 Pints combined from soil and postemergence applications	

Postemergence applications to corn must be made before corn exceeds 12 inches in height.

1 For Preplant or Preemergence Applications in Western KS, Western NE, Eastern CO, Eastern WY, NM, West TX and the Pan Handle of OK. On sands, loamy sands, sandy loams, mild to strongly alkaline soils and all recently leveled soils, apply 2% pts. per acre for broadleaf weed control. Broadleaf weeds such as pigweed, lambsquarters, nightshade, purslane and kochia will be controlled. On other soil types in the areas above, make applications at the rate shown in Table 1 for broadleaf and grass control.

Postemergence with emulsifiable oil or oil concentrate in water. IMPORTANT: Be sure to read precautions under "Application in water plus emulsifiable oil or oil concentrate.

BROADLEAF AND GRASS CONTROL: Broadcast 4 pts. per acre after weed emergence, but before weeds reach 1½ inches in height and before corn is over 12 inches tall. Add emulsifiable oil at rate of 1 gal. per acre for ground applications and ½ gal. per acre for aerial applications. Add oil concentrate at rate of 1 qt. per acre for ground applications.

BROADLEAF CONTROL: Broadcast 21/4 pts. per acre for control of broadleaf weeds, such as annual morningglory, cocklebur, lambsquarters, mustard, pigweed, ragweed, smartweed, and wild buckwheat. Add emulsifiable oil at rate of 1 gal. per acre for ground applications and ½ gal. per acre for serial applications. Add oil concentrate at rate of 1 qt. per acre for ground applications. Apply before pigweed and lambsquarters reach 6 inches in height, before all other weeds reach 4 inches in height and before corn is over 12 inches tall. A cultivation may be necessary if all weeds are not controlled or if weeds regrow.

#### TANK MIXTURES WITH ATRAZINE 4L IN CORN

#### ATRAZINE 4L + Paraquat

For control of existing vegetation and residual control where corn will be planted directly into cover crop, established sod or in previous crop residues - Broadcast 4 pts. ATRAZINE 4L and recommended label rate of Paraquat per acre in 20 to 60 gallons of water per acre. Following the Paraguat label, add recommended rate of nonionic surfactant per 100 gallons of diluted spray. Add ATRAZINE 4L to spray tank first and thoroughly mix with water. Add the Paraquat and surfactant last.

Refer to the Paraquat label for further directions, limitations and cautions.

#### ATRAZINE 41 + Alachior

Use a tank mixture of ATRAZINE 4L + alachlor for the control of most annual broadleaf and grass weeds in corn (field and silage corn only) such as annual morningglory, barnyardgrass, black nightshade, brachiaria, buttonweed (velvetleaf), carpetweed, cocklebur, crabgrass, fall panicum, Florida pusley, giant foxtail, green foxtail, yellow foxtail, goosegrass, lambsquarter, pigweed, purslane, mustard, common ragweed, smartweed and witchgrass.

Applications may be made preplant, within 7 days of planting; pre-emergence, or postemergence, until weeds reach the two leaf stage and the corn is more than 5 inches tall.

Refer to the alachlor label for application rates and directions, Applicable limitations and precautions on this and the alachlor tabel must also be followed.

#### ATRAZINE 4L + Alachior + Paraquat or Glyphosate For Minimum-Tillage or No-Tillage Systems

For control of many emerged annual weeds, suppression of many emerged perennial weeds, and preemergence control of many annual grasses and weeds in areas where corn will be planted directly into a cover crop, established sod or in previous crop residues. Regrowth from perennial weeds will not be controlled. Do not apply

Make application immediately before, during, or after planting, but before crop emergence. Refer to the alachlor label for application rates and directions. All applicable directions, limitations, and precautions on this and the alachlor and paraquat or glyphosate labels must be followed.

#### ATRAZINE 4L + Propachior

Use a tank mixture of ATRAZINE 4L + propachlor for control of most annual broadleaf and grass weeds in corn (field, hybrid seed, silage and sweet corn only), such as annual morningglory, annual ryegrass, barn-yardgrass (watergrass), buttonweed (velvetleaf), carpetweed, cocklebur, crabgrass, fall panicum, Florida pusley, giant foxtail, green foxtail, yellow foxtail, goosegrass, groundsel, jimsonweed, lambsquarters, mustard, nightshade, pigweed, purslane, ragweed, smartweed and sunflower, Broadcast 21/4 to 31/4 pts. of ATRAZINE 4L plus recommended rate of propachior per acre on the soil surface any time from immediately after planting

until broadleaf and grasses reach the two-leaf stage. Use the lower rates of ATRAZINE 4L and propachlor on light-textured soils low in organic matter. Use the higher rates on heavy-textured soils high in organic matter, A minimum of 2% pts. per acre of ATRAZINE 4L in the tank mixture will give better control of annual morninggiory, buttonweed (velvetleaf), cocklebur and sunflower.

Apply in a minimum of 20 gallons of water per acre. Non-pressure fluid fertilizer may replace all or part of the water used as a carrier for applications applied to the soil surface before crop and weeds emerge. Add the ATRAZINE 4L to the spray tank first and thoroughly mix with water.
Refer to propachlor label for further directions, limitations and cautions.

(Metolachior) 8E OR ATRAZINE 4L + Duai ATRAZINE 4L + Dual (Metolachior) 8E + Simazine

#### PREPLANT/PREEMERGENCE

Use a tank mixture of ATRAZINE 4L + Metolachior 8E or ATRAZINE 4L + Metolachtor 8E + simazine as a preplant surface, preplant incorporated or preemergence application for the control of barnyardgrass, crabgrass, crowlootgrass, fall panicum, foxtail millet, giant foxtail, goosegrass, green foxtail, prairie cupgrass, red rice, signalgrass (Brachiaria ), southwestern cupgrass, witchgrass, yellow loxtail, yellow nutsedge, black nightshade, carpetweed, Florida pusley, galinsoga, pigweed, browntop panicum, cocklebur, common purslane, hairy nightshade, lambsquarters, morningglory, ragweed, smartweed, and velvetleaf in corn-

To apply, refer to the tank mix directions appearing on the Metolachlor 8E label. Note, where directions specify AAtrex 4L, substitute CLEAN CROP ATRAZINE 4L. All applicable directions, limitations, and precautions on this and the Metolachlor 8E and simazine labels must be followed.

#### POSTEMERGENCE

Use a tank mixture of ATRAZINE 4L plus Metolachlor 8E as a postemergence application for the control of barnyardgrass, crabgrass, crowfootgrass, fall panicum, foxtail (giant, green and yellow), jimsonweed, mustard, pigweed, prickly sida, purstane, ragweed, smartweed, and velvetleaf and for partial control of cocklebur, morning-glory, and yellow nutsedge. To apply, follow the tank mix directions appearing on the Metolachlor 8E label. Note, where directions specify AAtrex 4L, substitute CLEAN CROP ATRAZINE 4L. All applicable directions, limitations, and precautions on the Metolachlor 8E label must be followed.

ATRAZINE 4L + Dual (Metolachlor) 8E + Paraquat or ATRAZINE 4L + Dual (Metolachlor) 8E + Glyphosate or ATRAZINE 4L + Dual (Metolachlor) 8E + Simazine + Paraquat or ATRAZINE 4L + Dual (Metolachlor) 8E + Simazine + Glyphosate.

For Minimum-Tillage or No-Tillage Systems.

Use a tank mixture of ATRAZINE 4L + Metolachlor 8E with paraquat or glyphosate. or ATRAZINE 4L + Metolachlor 8E + simazine with paraquat or glyphosate in minimum-tillage or no-tillage systems where corn is planted directly into a cover crop, stale seedbed, established sod, or previous crop residues.

The paraquat tank mixtures will control most emerged annual weeds and suppress many perennial weeds, in addition to controlling most pre-emergence annual broadleaf weeds and grasses. The glyphosate tank mixtures will control emerged annual and perennial weeds, in addition to controlling most pre-emergence annual broadleaf weeds and grasses.

Make application before, during, or after planting but before the corn emerges. To apply, follow the tank mix directions appearing on the Metolachlor 8E label. Note, where directions specify AAtrex 4L, substitute CLEAN CROP ATRAZINE 4L. All application directions, limitations, and precautions on this and the Dual 8E. simazine, paraquat and glyphosate labels must be followed.

#### ATRAZINE 4L. + Simazine 80W or Simazine 4L. or Simazine 90DF

Use a tank mixture of ATRAZINE 4L + simazine for the control of crabgrass, fall panicum and carpetweed, in addition to the control of the weeds listed for ATRAZINE 4L alone.

Make broadcast application of tank mix before planting, at planting, or after planting, but prior to emergence of corn and weeds. Apply at the rates shown in the table below. Cultivate shallowly if weeds develop.

PREPLANT SURFACE-APPLIED: Use on medium- and fine-textured soils in minimum-tillage or no-tillage systems only in CO, IL, IN, IA, KS, KY, MN, MO, MT, NE, ND, SD, WI, and WY. Apply 1/4 the recommended rate of ATRAZINE 4L and simazine shown in Table 2 for the soil texture as split treatment 30-45 days before planting, Apply the remainder at planting. Applications made less than 30 days before planting may be made as either a split or single treatment. On coarse-textured soils, do not apply more than two weeks before planting.

If weeds are present at time of treatment, apply in a tank mix combination with a contact herbicide (for example, paraquat or glyphosate). All applicable directions, precautions and limitations on the contact herbicides' label must be followed.

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: Make soil application and incorporate in the spring before, during, or after final seedbed preparation. Avoid deep incorporation. For best results, apply within two weeks before planting.

PREEMERGENCE: Apply during or shortly after planting, but prior to crop and weeds emergence.

All applicable directions, precautions, and limitations on this and the simazine label must be followed.

#### TABLE 2 Tank Mixtures With Simazine on Corn

	1:1 6	ATIO.			1:2 RATIO	)**	
Atrazine	Simazine	Simazine	Simazine	Atrazine	Simazine	Simazine	Simazine
4L	80W	90DF	4L	4L	80W	90DF	4L
SOIL T	EXTURE	:					
	amu esad	sandy loam					
Sand, K	Pairy america.		·				
Sand, ic 2 pts.	1% lbs.	1% lbs.	2 pts.	11/4 pts.	1% lbs.	11/4 lbs.	2% pts.

For control of most weeds

### ATRAZINE 4L + Simazine 80W, Simazine 4L, or Simazine 90DF with

Use a tank mixture of ATRAZINE 4L + simazine + glyphosate for control of certain broadleaf weeds and grasses where corn will be planted directly into a cover crop, established sod, or in previous crop residues. Refer to glyphosate label for rates and tank mix directions. All applicable directions, limitations, and precautions on this, the simazine, and the glyphosate label must be followed.

ATRAZINE 4L + Simazine 80W, Simazine 4L, or Simazine 90DF with Paraquat Use a tank mixture of ATRAZINE 4L + simazine + paraquat to control most emerged weeds and for residual weed control where corn will be planted directly into a cover crop, established sod or in previous crop residues. Add ATRAZINE 4L and simazine to water in spray tank. Agitate until thoroughly mixed. Next add paraquat and a nonionic surfactant, such as X-77, LOVELAND ACTIVATOR 90, or similar nonionic surfactant approved for agricultural use.

Continue agitation during application. Apply 2 to 4 pts. of ATRAZINE 4L plus 1¼ to 21/2 lbs. Simazine 80 (or 2 to 4 pts. Simazine 4L, or 11/4 to 21/4 lbs. Simazine 90DF) plus 1 to 2 pts. Paraquat in 20 to 60 gals, of water per sprayed acre. Make broadcast application before, during, or after planting, but before emergence of corn. Add ½ pt. of a nonionic surfactant per 100 gallons of spray mixture. Use the higher rate of paraquat if existing weeds are 4 to 6 inches tall. Weeds taller than 6 inches will

All applicable directions, limitations, and precautions on this, the simazine and the paraquat labels must be followed.

#### \_PRECAUTIONS FOR ALL APPLICATIONS TO CORN

- 1) Do not apply more than 4 to 5 pts. ATRAZINE 4L to corn in any one year. (See MAXIMUM RATES section of label.)
- 2) 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 springseeded crops, regardless of the rate used.
- 3) Do not graze treated area or feed treated forage to livestock for 21 days following application.
- 4) For postemergence applications plus emulsifiable oil, see additional precautions under that section of this label

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

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

Use only on medium and line textured soils having a minimum of 1% organic matter, except as separately recommended for furrow-irrigated bedded sorghum grown in Arizona and California. Post-emergence applications to sorghum must be made before sorghum exceeds 12 inches in height.

Preplant (Broadleaf and Grass Control):

Broadcast in the spring after plowing at the rate indicated in Table 3. 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. Pre-emergence (Broadleaf and Grass Control):

Apply during or shortly after planting, but prior to weed or crop emergence at the

rate indicated in Table 3.

#### TABLE 3

FOR ALL SOIL APPLICATIONS PRIOR TO SORGHUM EMERGENCE (including early preplant, preplant incorporated, preplant surface, at planting or preemergence)

Soil Erodibility Classification*	Plant Residue Amount	Maximum Rate Per Acre <sup>1</sup>
Highly erodible	30% or more (conservation tillage program)	4 Pints
	Less than 30% (conventional titlage program)	31/4 Pints
Not highly erodible	No limit	4 Pints

As defined by the Soil Conservation Service

1 ATRAZINE 4L should not be applied preplant to sorghum grown in NM, OK, TX, Western KS, Eastern CO, AR, LA, TN, MS, AL, GA, FL, SC, and NC, or pre-emergence to sorghum grown in NM, TX, OK, Western KS, Eastern CO, except in Northeastern OK and the Texas Gulf Coast.

In case of planting failures, sorghum can be replanted into soil previously treated with ATRAZINE 4L. Do not make a second broadcast application or injury may occur. If ATRAZINE 4L is applied in a band and sorghum is replanted in the untreated row middles, ATRAZINE 4L may be applied in a band to the second planting provided the maximum application rate of 2.5 lbs. a.i./A atrazine per calendar year is not exceeded.

Pre-emergence Broadleaf Weed Control in Furrow Irrigated Bedded Sorghum (Arizona and California only):

For pre-emergence control of broadleaf weeds such as ground cherry, lambsquarters, morningglory, mustard, pigweed and purslane, broadcast 1% to 2% 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 regular irrigations should follow the application, making sure that all soil is thoroughly wet.

Precautions for Pre-emergence Applications for ATRAZINE 4L to Furrow Irrigated Bedded Sorghum Grown in Arizona and California:

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. Com may be planted immediately.

#### Postemergence Broadleaf and Grass Weed Control:

Apply before weeds exceed 1% inches in height at the rate indicated in Table 4. Sorghum should be completely emerged. Applications may be made up to crop height of 12 inches.

TARLE 4 FOR SORGHUM POSTEMERGENCE APPLICATION

Previous Soil Application Of Atrazine To Crop	Total Maximum Rate Per Acre Per Calendar Year
No	4 Pints postemergence
Yes	5 Pints combined from soil and postemergence applications

#### Postemergence Broadleaf Weed Control with ATRAZINE 4L plus Emulsifiable Oil in Water:

Broadcast 2% pts. per acre for control of broadleaf weeds such as annual morningglory, cocklebur, lambsquarters, mustard, pigweed, ragweed, smartweed and wild buckwheat. Application should be made before pigweed and lambsquarters reach six inches in height, before all other weeds reach four inches in height and before sorghum exceeds 12 inches tall. In TX, NM, OK, Western KS, CO and the desert regions of CA and AZ, apply when sorghum is about 6-10 inches in height, but before it exceeds 12 inches tall. In all other areas, apply after sorghum reaches the three-leaf stage and before sorghum exceeds 12 inches tall. Add emulsifiable oil at the rate of 1 gallon per acre for ground applications and ½ gallon per acre for aerial applications. A cultivation may be necessary if all weeds are not controlled or if regrowth of weeds occur.

IMPORTANT: Be sure to read precautions under "Application in water plus emulsifiable oil or oil concentrate."

Postemergence Broadleaf Weed Control with ATRAZINE 4L plus Surfactant in OK, NM, TX, Western KS, CO and Desert regions of AZ and CA only:

Broadcast 2% pts. of ATRAZINE 4L plus ¾ to 1½ pts. of surfactant per acre when sorghum is 6 to 12 inches in height, but before weeds reach 1½ inches in height. Apply only on sandy loam and finer textured soils.

#### TANK MIXTURES WITH ATRAZINE 4L IN SORGHUM

#### ATRAZINE 4L + DUAL (METOLACHLOR) 8E (FOR USE ONLY ON SEED TREATED WITH CONCEP®)

Use a tank mixture of ATRAZINE 4L + Metolachior 8E for control of most annual broadleaf weeds and grasses. For use only when the sorghum seed has been properly treated by the seed company with Concep. Refer to the Metolachlor 8E label for directions, precautions, and limitations.

<sup>\*\*</sup> For control of expected heavy infestations of crabgrass and fall panicum.

### PRECAUTIONS FOR ALL APPLICATIONS TO SORGHUM

- 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.
- 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.
- 3) Do not graze or feed forage from treated areas for 21 days following application.
- 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 rate used.
- 5) For applications to furrow-irrigated bedded sorghum in Arizona and California and for postemergence applications plus emulsifiable oil, see additional precautions under these sections of this label.
- 6) Do not apply more than 4 to 5 pints of this product per acre per calendar year (See MAXIMUM RATES section of label).
- 7) For all soil applications prior to crop emergence (except for preemergence use on bedded sorghum in AZ and CA), do not apply to coarse-textured soils, i.e., sand, loamy sand, sandy loam, or to medium and fine-textured soils having less than 1% organic matter, or injury may occur.
- For postemergence applications, do not apply to sand or loamy sand, or injury may occur.

### SORGHUM POSTEMERGENCE WINTER WEED CONTROL IN TEXAS

For use on fall bedded land and in the Gulf Coast and Blacklands of Texas. Broadcast % to 1 qt. per acre postemergence for control of winter weeds only, such as henbit, seedling dock and annual thistle on land that will be planted to corn, grain sorghum, or forage sorghum the following spring.

For best results, add a suitable surfactant such as X-77 or ACTIVATOR 90, at a rate of 0.5% of spray volume, an emulsifiable oil at a rate of 1.0% of spray volume, or an oil concentrate at 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 lorage sorghum the spring following this treatment.

#### **CHEMICAL FALLOW**

#### 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. 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.

Precautions: (1) Use only on sitt loam or finer textured soil. (2) Wheat-sorghumtallow cropping sequence must be followed. (3) Do not apply following sorghum harvest

Note: Do not graze or feed lorage from treated area to livestock. Do not plant any crop other than those on this label within 18 months following treatment.

(\*Local resistance may result in suppression only or tack of control of some weeds. Refer to IMPORTANT NOTE within GENERAL INFORMATION SECTION of this label.)

#### WHEAT-CORN-FALLOW (KS, NE)

This treatment controls cheatgrass (downy brome, chess), kochia\*, mustards, pigweed\*. Russian thistle, wild lettuce, wild sunflower, and volunteer wheat following wheat harvest. Control may extend into the following corn crop when grown under minimum tillage.

Apply 6 pts. per acre to wheat stubble immediately following wheat harvest. If weeds are present, remove them with a sweep plow or other suitable implement after application. Plant corn 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.

Precautions: (1) Use only on silt loam or finer textured soil. (2) Wheat-corn-fallow cropping sequence must be followed. (3) Do not apply following corn harvest. NOTE: Do not graze or feed forage from treated area to livestock. Do not plant any crop other than those on this label within 18 months following treatment. (\*Local resistance may result in suppression only or tack of control. Refer to IMPORTANT NOTICE within GENERAL INFORMATION SECTION of this label.)

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

This treatment controls cheatgrass (downy brome, chess), common lambsquarters\*, field pennycress, kochia\*, mustard, Russian thistle, wild lettuce, and suppresses volunteer wheat during fallow period of a wheat-fallow-wheat rotation. Apply 1 to 2 pts. per acre. Use higher rate to control wild sunflower and pigweed\*.

Apply to stubble ground. Apply only once during the same fallow period. Use only on sift loam or finer textured soil.

(\*Local resistance may result in suppression only or lack of control. Refer to IMPORTANT NOTE within GENERAL INFORMATION SECTION of this label.)

#### **SUGARCANE**

To control many broadleaf and grass weeds, such as amaranths\*, crabgrass, fire-weed, flora's paintbrush, foxtails\*, junglerice\*, and wiregrass, apply 2 to 4 qts. per acre at the time of plantling or ratooning, but before emergence of sugarcane. Broadcast by air in a minimum of 5 gallons of spray per acre, or broadcast or band by ground equipment in a minimum of 20 gallons of spray per acre, unless otherwise indicated. One additional application may be made over sugarcane as it emerges, and two additional applications may be made interline after emergence as directed sprays. Where needed, repeat treatments may be applied broadcast, band, or interline as suggested with the final application being made prior to close-in. Do not exceed the rate of ATRAZINE 4L recommended for any one crop of sugarcane.

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

Aerial Application: Apply at a maximum height of 10 feet, 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 feet from sensitive plants.

(\*Local resistance may result in suppression only or lack of control. Refer to IMPORTANT NOTE within GENERAL INFORMATION SECTION of this label.)

#### FLORIDA

To control emerged pellitory weed, apply % to 1% pts. per acre in at least 40 gallons of water per acre. Apply as a directed spray, by ground equipment, prior to close-in. Add 4 quarts of surfactant for each 100 gallons of spray. Thoroughly cover the weed foliage.

To control alexandergrass\*, large crabgrass, pellitory (artillery) weed, and spiny amaranth\*, make application by one of the following methods at planting or ratiooning:

- Apply 4 qts. per acre, preemergence. Make one or two additional applications, as needed, postemergence to sugarcane and weeds, at 2 quarts per acre. Make application before weeds are greater than 1½ inches in height.
- Apply one to three times, as needed, at 2 qts, per acre posternergence to both sugarcane and weeds. Make application before weeds are greater than 1½ inches in height.

#### LOUISIANA

To control annual weeds during summer fallow period, apply 2 qts. per acre to weed free beds, immediately after beds are formed. After planting, follow normal weed control

Precautions: (1) Do not apply more than 10 quarts per acre to any one sugarcane crop. (2) If applying 2 quarts per acre during summer fallow period, do not apply more than 4 quarts per acre during the remainder of the growing season.

#### TEXAS

To control barnyardgrass\*, pigweed\*, purslane, and sunflower, in plant or ration sugarcane, apply preemergence at 4 qts. per acre. Make one or two additional applications, as needed, at 3 qts. per acre postemergence to sugarcane and

To achieve best results when weeds are emerged, add a nonionic surfactant at a concentration of 2 qts. per 100 gallons of spray and apply before the weeds are greater than 1½ inches in height.

(\*Local resistance may result in suppression only or lack of control. Refer to IMPORTANT NOTE within GENERAL INFORMATION SECTION of this label.)

Precautions: (1) Sugarcane may be injured when under moisture stress, when soil is of low absorptive capacity, or when land is first planted to sugarcane. (2) Do not apply after close-in. (3) Do not apply more than 10 quarts per acre to any one crop of sugarcane.

#### MACADAMIA NUTS

For preemergence control of many broadleaf and grass weeds including crabgrass, toxtail\*, wiregrass, flora's paintbrush, spanishneedles, and fireweed, apply 2 to 4 qts. per acre before harvest. Repeat as necessary. Do not apply when nuts are on the ground during harvest period. Do not apply by air.

#### **GUAVA**

For the control of many annual broadleaf and grass weeds, including fireweed, pursiane, scarlet pimpernel. Spanishneedles and sowthistle. Apply only on established plantings, at least 18 months old. Apply preemergence or early postemergence to weeds as a directed spray at 2 to 4 qts. per acre in 20 to 50 gallons of spray mix. When applying postemergence, the use of a surfactant and greater spray volume (80 to 100 gallons of spray mix per acre) may enhance weed control. Note: (1) Do not allow spray to come into contact with foliage or fruit. (2) Do not apply more frequently than at 4 month intervals. (3) Do not apply more than 8 quarts of ATRAZINE 4L per year.

### TURF GRASSES FOR SOD (FLORIDA ONLY)

ST. AUGUSTINEGRASS, CENTIPEDEGRASS, AND ZOYSIA GRASS

For the control of most annual broadleaf and grass weeds such as barnyardgrass\*, witchgrass\* (Panicum capillare), yellow foxtail\*, green foxtail\*, wild oats, large (hairy) crabgrass, velvetleaf\*, morningglory, lambsquarters\*, ragweed, night-shade\*, purslane and mustard. (\*Local resistance may result in suppression only or lack of control. Refer to IMPORTANT NOTE within GENERAL INFORMATION SECTION of this label.)

Apply at the rates indicated in the table below:

Soil Texture	Broadcast Rate Per Acre	Application Timing
Muck or Peat	4 qts.	Old Beds: Within 2 days after lifting sod. New Beds: 3 to 4 days after sprigging or plugging.
Sandy Soil	2 qts.	Old Beds: Within 2 days after lifting sod. New Beds: 7 to 10 days after sprigging or plugging.

If weeds regrow, apply an additional 2 qts. per acre on muck or peat, or 1 qt. per acre on sandy soil.

Precautions: (1) Do not apply within 30 days before cutting or lifting. (2) Do not apply in combination with surfactants or other spray additives. (3) Use only on turfgrass that is reasonably free of insect, nematode, and disease infestations. (4) On newly sprigged turfgrass, temporary slowing of growth may follow application.

### TURFGRASS FOR FAIRWAYS, LAWNS, SOD PRODUCTION (in states other than Florida)

#### and SIMILAR AREAS

BERMUDAGRASS, CENTIPEDEGRASS, ST. AUGUSTINEGRASS, AND ZOYSIA GRASS

To control annual bluegrass\*, burclover, carpet burweed, chickweed, com speedwell, henbit, hop clover, and spurweed, make application after October 1, pror to emergence of winter annual weeds. Annual bluegrass will be controlled even if its is emerged at time of treatment. To control summer annual weeds such as barriyard-grass\*, witchgrass\* (*Panicum capillare*), yellow foxtail\*, green foxtail\*, wild oats, large (hairy) crabgrass, velvetleal\*, morningglory, lambsquarters\*, ragweed, night-shade, purslane and mustard, apply ATRAZINE 4L in late winter before the weeds ernerge. Apply in a minimum of 15 gallons of water per acre or 1 gallon per 1,000 sq. ft. (\*Local resistance may result in suppression only or lack of control. Refer to IMPORTANT NOTE within GENERAL INFORMATION SECTION on this label.) in areas where the major weed is annual bluegrass, apply 1 qt. per acre (0.75 fl. oz. per 1,000 sq. ft.). Do not apply more than 1 qt. per treatment on newly sprigged turlgrass or on hybrid bermudagrass such as Tillawn, Tilway, and

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. Do not make more than 2 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 that is reasonably free of insect, nematode, and disease infestations. (2) Do not use on goit greens. (3) Do not use north of NC (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.

Note: Do not graze or feed turf clippings to animals.

#### ROADSIDES

For control of certain annual weeds such as cheatgrass (downy brome, chess), common (annual) broomweed, little barley, medusahead, sagewort, and tumble mustard in established perennial grasses along roadsides in CO, KS, MT, NE, ND, SD, and WY. Apply 2 pts. per acre in a minimum of 10 gallons of water by ground equipment. Apply in the tall before spring thawing, but before established grasses green up and weeds emerge. Apply only once per year. Following application, temporary discoloration or other forms of injury may occur to the perennial grasses.

Precautions: (1) Do not graze treated areas. (2) Do not cut or feed roadside grass for hay.

#### **CONIFERS**

For control of annual broadleaf and grass weeds such as barnyardgrass\*, witchgrass\* (*Panicum capillare*), yellow foxtail\*, green foxtail\*, wild oats, large (hairy) crabgrass, velvetleaf\*, morningglory, lambsquarters\*, ragweed, nightshade\*, purslane, and mustard, in Douglas fir, grand fir, noble fir, white fir, Austrian pine, bishop pine.

Jeffrey pine, knobcone pine, lobiolly pine, lodgepole pine (shore pine), monterey pine, ponderosa pine, Scotch pine, slash pine, blue spruce, and Sitka spruce.

Broadcast 2 to 4 qts. In a minimum of 5 gals, of water per acre by air or 10 gals, by ground prior to transplanting, soon after transplanting, or in established conifers between fall and early spring while trees are dormant. Apply before weeds are 1-½ inches talt. For applications prior to transplanting allow sufficient precipitation to activate ATRAZINE 4L before transplanting. In areas where spring and summer rainfall is inadequate to activate ATRAZINE 4L, apply during fall prior to spring transplanting.

Quackgrass\* Control: Broadcast 4 qts. in a minimum of 5 gals, of water per acre by air or 10 gals, by ground in fall or early spring while trees are dormant and before quackgrass is more than 1½ inches tall. (\*Local resistance may result in suppression only or lack of control. Refer to IMPORTANT NOTE within GENERAL INFORMATION SECTION of this label.)

—Precautions: (1) In areas west of Rocky Mountains (except 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 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 by aircraft at a minimum upwind distance 400 ft. from sensitive plants. Note: In very hilly or mountainous terrain where the 10 foot flying height is unsafe, fly as low as possible. There may be increased risk of spray drift and uneven application.

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#### NOTICE

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