

# 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 precautionary statements and instructions for use in order to minimize potential for Atrazine to reach ground and surface water.



**SIPCAM AGRO USA, INC.**

# ATRAZINE 4L

## FLOWABLE HERBICIDE

For Season-Long Weed Control in Corn and Sorghum For Weed Control in Certain Other Crops

### ACTIVE INGREDIENTS:

Atrazine (2 - chloro - 4 - ethylamino - 6 - isopropylamino - s - triazine) .....	40.8%
Related compounds .....	2.2%
<b>OTHER INGREDIENTS:</b> .....	<b>57.0%</b>

**TOTAL:** ..... 100.0%

This product contains 4 lbs. of atrazine per gallon.

# KEEP OUT OF REACH OF CHILDREN

# CAUTION

See inside panel for additional precautionary statements. Shake well before using.

NET CONTENTS: 2.5 GALLONS  
(9.5 LITERS)

MANUFACTURED FOR:  
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EPA EST. NO. 070989-MO-001  
(081704) 10/04

# PRECAUTIONARY STATEMENTS

## HAZARDS TO HUMANS AND DOMESTIC ANIMALS

# CAUTION

Harmful or fatal if swallowed. Causes moderate eye irritation. Do not get in eyes, on skin, or on clothing. Harmful if swallowed, inhaled or absorbed through the skin. Avoid breathing spray mist.

## FIRST AID

**IF SWALLOWED:** Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person.

**IF IN EYES:** Hold eye open and rinse slowly and gently with water for 15 - 20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

**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 INHALED:** Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or doctor for further treatment advice.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

Emergency telephone numbers: (800) 424-9300 CHEMTREC (transportation and spills)  
(800) 900-4044 Poison Control Center (human health)  
(800) 345-4735 ASPCA (animal health)

## PERSONAL PROTECTIVE EQUIPMENT

Handlers who may be exposed to the dilute spray solution through application or other tasks must wear: long-sleeved shirt and long pants, water-proof gloves and chemical-resistant footwear plus socks. Some materials that are chemical resistant to this product are barrier laminate or butyl rubber or nitrile rubber or neoprene rubber or polyvinyl chloride (PVC) or viton. If you want more options, follow instructions for Category A on an EPA chemical resistant category selection chart.

Applicators using spray equipment mounted on their backs must wear:

- Coveralls over long-sleeved shirt and long pants,
- Chemical-resistant footwear plus socks, and
- Chemical-resistant gloves, such as barrier laminate or butyl rubber or nitrile rubber or neoprene rubber or polyvinyl chloride (PVC) or viton.

Mixers, loaders, all other applicators, flaggers, and other handlers must wear: long-sleeved shirt and long pants, chemical-resistant gloves, such as barrier laminate or butyl rubber or nitrile rubber or neoprene rubber or polyvinyl chloride (PVC) or viton, shoes plus socks, and chemical-resistant apron, when mixing/loading, cleaning up spills, cleaning equipment, or otherwise exposed to the concentrate.

See engineering controls for additional requirements.

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry. Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them.

## ENGINEERING CONTROLS

Mixers and loaders supporting aerial applications at a rate greater than 3 lbs ai/A must use a closed system that meets the requirements for dermal protection listed in the Worker Protection Standard (WPS) for Agricultural Pesticides [40 CFR 170.240(d)(4)] and must:

- wear the personal protective equipment required for mixers and loaders,
- wear protective eyewear if the system operates under pressure, and
- be provided and have immediately available for use in an emergency, such as a spill or equipment breakdown: chemical resistant footwear.

Pilots must use an enclosed cockpit in a manner that is consistent with the WPS for Agricultural Pesticides [40 CFR 170.240(d)(6)]. Pilots must wear the PPE required on this labeling for applicators, however, they need not wear chemical-resistant gloves when using an enclosed cockpit.

Flaggers supporting aerial applications must use an enclosed cab that meets the definition on the Worker Protection Standard for Agricultural Pesticides [40 CFR 170.240(d)(5)] for dermal protection.

When applicators use enclosed cabs in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(5)], 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/ PPE 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

This pesticide is toxic to aquatic invertebrates. Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high-water mark. Do not apply when weather conditions favor drift from treated areas. Runoff and drift from treated areas may be hazardous to aquatic organisms in neighboring areas. 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.

Product must not be mixed or loaded within 50 feet of intermittent streams and rivers, natural or impounded lakes and reservoirs. Product must not be applied within 66 feet of points where field surface water runoff enters perennial or intermittent streams and rivers or within 200 feet of natural or impounded lakes and reservoirs. If this product is applied to highly erodible land, the 66 foot buffer or setback from runoff entry points must be planted to crop, or seeded with grass or other suitable crop.

Product must not be mixed or loaded, or used within 50 feet of all wells including abandoned wells, drainage wells, and sink holes. Operations that involve mixing, loading, rinsing, or washing of this product into or from pesticide handling or application equipment or containers within 50 ft. of any well are prohibited, unless conducted on an impervious pad constructed to withstand the weight of the heaviest load that may be positioned on or moved across the pad. Such a pad shall be designed and maintained to contain any product spills or equipment leaks, container or equipment rinse or wash water, and rain water that may fall on the pad. Surface water shall not be allowed to either flow over or from the pad, which means the pad must be self-contained. The pad shall be sloped to facilitate material removal. An unroofed pad shall be of sufficient capacity to contain at a minimum 110% of the capacity of the largest pesticide container or application equipment on the pad. A pad that is covered by a roof of sufficient size to completely exclude precipitation from contact with the pad shall have a minimum containment of 100% of the capacity of the largest pesticide container or application equipment on the pad. Containment capacities as described above shall be maintained at all times. The above-specified minimum containment capacities do not apply to vehicles when delivering pesticide to the mixing/ loading sites.

Additional State imposed requirements regarding well-head setbacks and operational area containment must be observed.

One of the following restrictions must be used in applying atrazine to tile-outletted fields containing standpipes:

- (1) Do not apply this product within 66 feet of standpipes in tile-outletted field.
- (2) Apply this product to the entire tile-outletted field and immediately incorporate it to a depth of 2 - 3 inches in the entire terraced field.
- (3) Apply this product to the entire tile-outletted field under a no-till practice only when a high crop residue management practice is practiced. High crop residue management is described as a crop management practice where little or no crop residue is removed from the field during and after crop harvest.

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

## DIRECTIONS FOR USE

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

ANY USE OF THIS PRODUCT IN AN AREA WHERE USE IS PROHIBITED IS A VIOLATION OF FEDERAL LAW. Before using this product, you must consult the Atrazine Watershed Information Center (AWIC) to determine whether the use of this product is prohibited in your watershed. AWIC can be accessed through [www.atrazine-watershed.info](http://www.atrazine-watershed.info), or [1-866-365-3014]. If use of this product is prohibited in your watershed, you may return this product to your point of purchase or contact Sipcarn Agro USA, Inc. for a refund.

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. 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 pesticide. 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 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, shoes plus socks, and chemical-resistant gloves such as any waterproof material.

## 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 or allow others to enter until sprays have dried.

**CHEMIGATION PROHIBITION:** Do not apply this product through any type of irrigation system.

## STORAGE AND DISPOSAL

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

**PESTICIDE STORAGE:** Store in a secure, cool, dry location. Ground water contamination may be reduced by diking and flooring of permanent bulk storage sites with an impermeable material.

**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 incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke.

## GENERAL INFORMATION

This herbicide controls many annual broadleaf and grass weeds in corn, sorghum, sugarcane, and certain other crops specified on this label. It is also effective in industrial sites for control of most annual and many perennial broadleaf and grass weeds. This product may be applied before or after weeds emerge.

When tank-mixing or sequentially applying atrazine or products containing atrazine to corn or sorghum, do not exceed an application rate of 2.0 pounds of active ingredient of atrazine per acre for any single application and the total pounds of atrazine applied (lbs ai per acre) must not exceed 2.5 pounds active ingredient per acre per year.

When tank-mixing or sequentially applying atrazine or products containing atrazine to crops other than corn or sorghum, the total pounds of atrazine applied (lbs ai/A) must not exceed the specific seasonal rate limits as noted in the use directions.

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

Since this product acts mainly through root absorption, its effectiveness depends on moisture to move it into the root zone. If weeds develop, a shallow cultivation or rotary hoeing will generally result in better weed control.

This product is nonflammable.

Avoid using near adjacent desirable plants or in greenhouses, or injury may occur.

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

Where the use directions give a range of rates, use the lower rate on coarse-textured soil and soil low in organic matter; use the higher rate on fine-textured soil and soil high in organic matter.

**NOTE:** SIPCAM AGRO USA, INC. does not recommend applications in combination with other herbicides or oils, except as specifically described on the label.

## 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 recalibrate at the start of each season and when changing carriers. Unless otherwise specified, use a minimum of 10 gals. of spray mixture/A for all preplant incorporated, preplant surface, preemergence, and postemergence applications (with or without oil or surfactant) with ground equipment.

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

Use screens to protect the pump and to prevent nozzles from clogging. Screens placed on 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.

**AERIAL APPLICATION:** Use aerial application only where broadcast applications are specified. Apply in a minimum of 1 qt. of water for each quart of this product applied per acre. For postemergence treatments on corn and sorghum, apply recommended rate in a minimum of 2 gals. of water/A. Avoid applications under conditions where uniform coverage cannot be obtained or where excessive spray drift may occur.

Avoid application to humans or animals. Flagmen and loaders should avoid inhalation of spray mist and prolonged contact with skin.

### Spray Drift Reduction Advisory

Avoiding spray drift at the application site is the responsibility of the applicator. The interaction of many equipment- and weather-related factors determine the potential for spray drift. The applicator and the grower are responsible for considering all these factors when making decisions. The following drift management requirements must be followed to avoid off-target drift movement from aerial applications to agricultural field crops. These requirements do not apply to forestry applications, public health uses, or to applications using dry formulations.

1. The distance of the outermost nozzles on the boom must not exceed 3/4 the length of the wingspan or rotor.
2. Nozzles must always point backward parallel with the air stream and never be pointed downward more than 45 degrees.

Where states have more stringent regulations, they should be observed.

The applicator should be familiar with and take into account the information covered in the **Aerial Drift Reduction Advisory Information** section below.

## **Aerial Drift Reduction Advisory Information**

### **Information of Droplet Size**

The most effective way to reduce drift potential is to apply large droplets. The best drift management strategy is to apply the largest droplets that provide sufficient coverage and control. Applying larger droplets reduces drift potential, but will not prevent drift if applications are made improperly, or under unfavorable environmental conditions (see **Wind, Temperature and Humidity**, and **Temperature Inversions**).

### **Controlling Droplet Size**

- **Volume** – Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets.
- **Pressure** – Do not exceed the nozzle manufacturer's recommended pressures. For many nozzle types, lower pressure produces larger droplets. When higher flow rates are needed, use higher flow rate nozzles instead of increasing pressure.
- **Number of nozzles** – Use the minimum number of nozzles that provide uniform coverage.
- **Nozzle Orientation** – Orienting nozzles so that the spray is released parallel to the airstream produces larger droplets than other orientations and is the recommended practice. Significant deflection from horizontal will reduce droplet size and increase drift potential.
- **Nozzle Type** – Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles. Solid stream nozzles oriented straight back produce the largest droplets and the lowest drift.

**Boom Length** - For some use patterns, reducing the effective boom length to less than 3/4 of the wingspan or rotor length may further reduce drift without reducing swath width.

**Application Height** - Applications should not be made at a height greater than 10 ft. above the top of the largest plants, unless a greater height is required for aircraft safety. Making applications at the lowest height that is safe reduces exposure of droplets to evaporation and wind.

### **Swath Adjustment**

When applications are made with a crosswind, the swath will be displaced downward. Therefore, on the up and downwind edges of the field, the applicator must compensate for this displacement by adjusting the path of the aircraft upwind. Swath adjustment distance should increase with increasing drift potential (higher wind, smaller drops, etc.).

### **Wind**

Drift potential is lowest between wind speeds of 2-10 mph. However, many factors, including droplet size and equipment type, determine drift potential at any given speed. Application should be avoided below 2 mph due to variable wind direction and high inversion potential.

Note: Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they affect spray drift.

### **Temperature and Humidity**

When making applications in low relative humidity, set up equipment to produce larger droplets to compensate for evaporation. Droplet evaporation is most severe when conditions are both hot and dry.

### **Temperature Inversions**

Applications should not occur during a temperature inversion because drift potential is high. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions due to the light variable winds common during inversions. Temperature inversions are characterized by increasing temperatures with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog; however, if fog is not present, inversions can also be identified by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.

### **Sensitive Areas**

The pesticide should only be applied when the potential for drift to adjacent sensitive areas (e.g., residential areas, bodies of water, known habitat for threatened or endangered species, non-target crops) is minimal (e.g., when wind is blowing away from the sensitive areas).

**APPLICATION IN WATER OR LIQUID FERTILIZER:** Nitrogen solution or complete liquid fertilizer may replace all or part of the water as a carrier for preemergence, preplant incorporated, or preplant surface ground application on corn and sorghum. 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, or crop injury may occur.

### **FOR BAND APPLICATIONS, CALCULATE AMOUNT TO BE APPLIED PER ACRE AS FOLLOWS:**

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

**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 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 gals. per acre. For other spray volumes, make appropriate changes in the ingredients. Check compatibility using this procedure:

- 1) Add 1 pint of liquid carrier (water, fertilizer suspension or solution) to each of two (2) one-quart jars with tight lids.
- 2) To **one** of the jars add 1/4 teaspoon (1.2 milliliters) of a compatibility agent approved for this use, such as Complex® or Unite® (1/4 teaspoon in one quart of compatibility test mixture is equivalent to approximately 2 pints per 100 gallons of spray mixture). Shake or stir gently to mix.

3) To **both** jars add the appropriate amount of herbicide(s) intended to be tank mixed. If more than one type of formulation is to be used, first add dry product(s), then flowables or liquid suspension concentrates, and emulsifiable concentrates last. After each addition, shake or stir the mixture gently to thoroughly mix. The appropriate amount of each pesticide to be used for this test is as follows:

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

**Liquid products:** For each pint to be applied per acre, add 0.5 teaspoons (2.5 millimeters) to each jar.

4) After adding all ingredients, put lids on and tighten, then invert each jar ten times to mix. Let the mixtures stand 15 minutes and then look for separation, large flakes, precipitates, gels, heavy oily film in the jar, or other signs of incompatibility. Determine if the compatibility agent is needed in the spray mixture by comparing the contents of the two jars. If either mixture separates, but can be remixed 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) slurry the dry pesticide(s) in water before addition; or

(B) add 1/2 of the compatibility agent to the fertilizer and the other 1/2 to the emulsifiable concentrate or flowable pesticide before addition to the mixture. If non-compatibility is still observed, do not use the mixture.

**Application in water plus emulsifiable oil or oil concentrate:** Adding emulsifiable oil (petroleum-derived, or single or mixed crop-derived oil 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, use a suitable crop oil concentrate containing at least 1% but not more than 20% suitable emulsifier or surfactant blend, or use a petroleum-derived oil containing at least 1% suitable emulsifier.

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

**Mixing procedures – All Uses:** (1) Be sure sprayer is clean and not contaminated with any other materials, otherwise crop injury or sprayer clogging may result; (2) Fill tank 1/4 full with liquid spray carrier (clean water, nitrogen solution, or complete liquid fertilizer); (3) Start agitation, then be certain that agitation is working sufficiently to create a rippling or rolling action on the water surface; (4) Transfer directly into the tank the proper amount of this product according to the area to be treated; (5) Continue filling the tank with liquid spray carrier until 90% full. Increase agitation as tank fills if necessary to maintain efficient mixing of tank contents; (6) If using emulsifiable oil, oil concentrate, or other pesticides after this product is thoroughly suspended; (7) Finish filling the tank; (8) When applying to the area to be treated, maintain agitation to avoid separation of tank contents, and empty tank as completely as possible before re-filling in order to prevent buildup of oil or emulsifiable concentrate residue; (9) If an oil or emulsifiable concentrate film starts to build up in the tank, drain it and clean with strong detergent solution or solvent; (10) Clean sprayer thoroughly immediately after use by flushing system with water containing a detergent.

Within rate changes in all tables on this label, use the lower rate on soil relatively coarse-textured or low in organic matter; use the higher rate on soil relatively fine-textured or high in organic matter.

**ROTATIONAL CROPS – ALL USES:** (1) Do not rotate to any crop except corn or sorghum until the following year, or injury may occur. (2) If applied after June 10, do not rotate with crops other than corn or sorghum the next year, or crop 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 only when corn or sorghum is to follow corn or sorghum or when a crop of untreated corn or sorghum is to precede other rotational crops. (4) In eastern parts of the Dakotas, KS, western MN, and NE, do not rotate to soybeans if the rate applied to corn or sorghum was more than 4 pts./A or equivalent band application rate, or soybean injury may occur. (5) Injury may occur to soybeans planted the year following application on soils having a calcareous surface layer. (6) Do not plant sugar beets, tobacco, vegetables (including dry beans), spring-seeded small grains, or small-seeded legumes and grasses the year following application, or injury may occur.

## ATRAZINE 4L APPLIED ALONE CORN OR GRAIN SORGHUM\*

The maximum application rate of corn and sorghum is 2.5 lbs. a.i. (5 pts. Atrazine 4L) per acre per calendar year. Application for quackgrass suppression in corn and sorghum are restricted to a spring application only. No fall applications are permitted. Postemergence application to corn and sorghum must be made before corn and sorghum reaches 12 inches in height.

**Preplant Surface-Applied, Preplant Incorporated, or Preemergence (or Postemergence at 4 pints/A of Atrazine 4L with Oil)**

### Broadleaf and Grass Weeds Controlled

barnyard grass*** (watergrass)	cocklebur	nightshade
giant foxtail**	groundcherry	pigweed
green foxtail***	jimsonweed	purslane
large (hairy) crabgrass**	kochia	ragweed
wild oats	annual morningglory	sicklepod**
witchgrass ( <i>Panicum capillare</i> )***	mustards	velvetleaf (buttonweed)**
lambsquarters	yellow foxtail***	

**Postemergence with Emulsifiable Oil or Oil Concentrate in Water (at 2 + 2.4 pints/Acre of Atrazine 4L)**

### Broadleaf Weeds Controlled

annual morningglory	lambsquarters	ragweed
cocklebur	mustards	smartweed
jimsonweed	pigweed	wild buckwheat
		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/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.

\*\*Partial control only.

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

## CORN

**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, NE, ND, SD, WI, and WY. Apply the recommended rate of Atrazine 4L shown in Table 1 up to 45 days prior to planting. On **coarse-textured soils**, do not apply more than two weeks prior to planting. If an unsatisfactory length of weed control results from adverse environmental conditions following early treatment, a follow-up application of an appropriately labeled herbicide may be used. If the follow-up treatment includes atrazine, do not exceed the labeled rate for corn indicated in Table 1.

If weeds are present at the time of treatment, apply in tank mixture 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 1. Apply to the soil and incorporate before, during, or after final seedbed preparation. Avoid deep incorporation. For best results, apply within two weeks prior to planting.

**PREEMERGENCE OR AT-PLANTING (Broadleaf and Grass Control):** Apply during or shortly after planting before weed emergence at rate in Table 1.

**POSTEMERGENCE (Broadleaf and Grass Control):** Apply before weeds exceed 1.5 inches in height and before corn exceeds 12 inches in height at rate recommended in Table 1.

### TABLE 1: Broadleaf and Grass Weed Control on Corn\*

#### FOR ALL SOIL APPLICATIONS PRIOR TO CROP EMERGENCE

##### MAXIMUM BROADCAST APPLICATION RATES FOR CORN MUST BE AS FOLLOWS:

- **ON HIGHLY ERODIBLE SOILS (as defined by SCS):** If conservation tillage is practiced, leaving at least 30% of the soil covered with plant residues at planting, apply a maximum of 2 lb ai/A (4 pts/A of Atrazine 4L) as a single preemergence application. If the soil coverage with plant residue is less than 30% at planting, a maximum of 1.6 lb ai/A (3.2 pints/A of Atrazine 4L) as a single pre-emergence application; or 2.0 lb ai/A of this product if only applied postemergence.
- **ON SOILS NOT HIGHLY ERODIBLE:** Apply a maximum of 2 lb ai/A (4 pints/A of Atrazine 4L) as a single preemergence application.

#### FOR POSTEMERGENCE APPLICATION

If no atrazine was applied prior to corn emergence, apply a maximum of 2 lb ai/A (4 pints/A of Atrazine 4L) broadcast. If a postemergence treatment is required following an earlier herbicide application, the total atrazine applied may not exceed 2.5 lb ai/A (5 pints of Atrazine 4L) per calendar year.

\***Broadleaf control (eastern CO, western KS, western NE, NM, OK Panhandle, west TX and eastern WY):** On sand, loamy sand, sandy loam, mild to strongly alkaline soil, and all recently leveled soil, apply no more than 2.4 pts./A of Atrazine 4L, either preplant surface, preplant incorporated, or preemergence. On other soils in these areas, apply rate in Table 1 for broadleaf and grass control.

Preharvest Intervals (PHI): Field corn forage uses: 60-day PHI; Sweet corn forage uses: 45-day PHI.

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 apply. 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.

**POSTEMERGENCE WITH EMULSIFIABLE OIL OR OIL CONCENTRATE IN WATER:** Add the following volume of one of the type oils indicated for aerial or ground application unless the oil label specifies otherwise:

TYPE OIL	GROUND APPLICATION	AERIAL APPLICATION
Oil concentrate (Crop or Petroleum-derived)	1 qt./A	1/2 - 1 qt./A
Petroleum-derived oil	1 gal./A	2 qts./A

**NOTE:** Crop-derived or petroleum-derived oil concentrates should contain at least 1% but not more than 20% suitable emulsifier or surfactant blend. Petroleum-derived oils should contain at least 1% suitable emulsifier.

**BROADLEAF AND GRASS CONTROL:** For postemergence control of those weeds listed under **Preplant Incorporated and Preemergence**, broadcast 4 pts./A of Atrazine 4L plus emulsifiable oil or oil concentrate after weed emergence, but before weeds reach 1.5 inches in height and before corn exceeds 12 inches in height.

**BROADLEAF CONTROL:** For postemergence control of those weeds listed under **Postemergence with emulsifiable oil or oil concentrate in water**, broadcast 2.4 pts./A of Atrazine 4L 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 WITH EMULSIFIABLE OIL OR OIL CONCENTRATE IN WATER:** (1) *Inbred lines or any breeding stock may be severely injured by applications with emulsifiable oil or oil concentrate.* (2) *Adding other insecticides, herbicides, liquid fertilizers or other materials is not recommended, because they may cause compatibility problems or crop injury.* (3) *Store and handle emulsifiable oil and oil concentrate carefully. Oil contaminated with even a small amount of water may not emulsify properly when added to the tank. To avoid crop injury.* (4) *Do not apply 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. (5) Do not exceed 2.5 lbs. active ingredient (or 5 pts. of this product) per acre per calendar year. (6) Postemergence applications to corn must be made before crop reaches 12 inches in height.

## Tank Mixtures for Corn

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

Metolachlor* (Stalwart™, Dual™)	Alachlor + Glyphosate
Metolachlor + Paraquat (Gramoxone®)	Alachlor + Paraquat
Metolachlor + Glyphosate (Roundup®)	Paraquat
Metolachlor + Simazine (Sim-Trol®)	Simazine
Metolachlor + Simazine + Paraquat	Simazine + Paraquat
Metolachlor + Simazine + Glyphosate	Simazine + Glyphosate
Propachlor (Ramrod®)	Glyphosate
Alachlor (Lasso® or Lasso EC)	

\* Includes metolachlor and s-metolachlor

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 pts. of 4L.

### SIMAZINE (SIM-TROL 4L OR SIM-TROL 90DF)

In addition to the weeds listed under **Atrazine 4L Applied Alone – Corn or Grain Sorghum – Preplant Surface – Applied, Preplant Incorporated, or Preemergence**, 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 only 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 45 days prior to planting. Refer to the Atrazine 4L alone section for information if weeds should develop following the early 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. 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.

Refer to **Corn** sections of this label and to simazine labels for further directions, limitations, and precautions.

### TABLE 2: Tank Mixtures with Simazine on Corn

Soil Texture	Broadcast Rate/A			
	1:1 Ratio*		1:2 Ratio**	
	This Product	SIM-TROL 4L <sup>1</sup>	This Product	SIM-TROL 4L <sup>1</sup>
Sand, loamy sand, sandy loam	2 pts.	2 pts.	1.32 pts.	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.	2.4 pts.	1.6 pts.	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.	3 pts.	1.92 pts.	3.8 pts.

\*For control of most weeds.

\*\*For control of expected heavy infestations of crabgrass and fall panicum.

<sup>1</sup>When using SIM-TROL 90DF use equivalent rates. Two pints of SIM-TROL 4L equals 1.125 lbs. of SIM-TROL 90DF.

**SIMAZINE PLUS GLYPHOSATE:** Use as tank mixture for preemergence and postemergence control of certain broadleaf and grass weeds where corn will be planted directly into a cover crop, established sod, or in previous crop residues. Refer to glyphosate label for all directions, weeds controlled, precautions, and limitations.



**SIMAZINE PLUS PARAQUAT:** Use as tank mixture with simazine and paraquat to kill existing vegetation and for residual weed control where corn will be planted directly into a cover crop, established sod, or in previous crop residues. Add this product and simazine to water in spray tank, agitating until thoroughly mixed. Then add paraquat and a nonionic surfactant such as X-77<sup>®</sup>. Continue agitation during application. Broadcast 2 - 4 pts. of this product plus 2 - 4 pts. SIM-TROL 4L (or 1.1 - 2.2 lbs. SIM-TROL 90DF) plus 0.5 - 0.8 paraquat cation a.i. in 20 - 60 gallons of water per sprayed acre. Refer to the paraquat label for the appropriate rates to utilize in this tank mixture. Apply before, during or after planting, but before corn emerges. Add 0.5 pint of a nonionic surfactant, such as X-77, per 100 gallons of spray mixture. Use the higher rate of paraquat if existing vegetation is 4 - 6 inches tall. This mixture will not control weeds taller than 6 inches.

Refer to further limitations and precautions on labels for this product, simazine and paraquat products. Follow the most restrictive appropriate restrictions, precautions, or use directions on the most restrictive label.

**Use Precautions and Restrictions for all applications to corn:** (1) To avoid crop injury and illegal residues, do not apply more than 5 pints/A of this product (2.5 lbs./A active ingredient) per calendar year. (2) 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 combinations. (3) Following harvest, plow (moldboard or disk-plow) and thoroughly till soil in fall or spring to minimize possible injury to spring-seeded rotational crops, regardless of rate used. (4) Do not graze or feed forage from treated areas for 60 days for field corn, and 45 days for sweet corn, following application, or illegal residues may result.

## SORGHUM AND SORGHUM-SUDAN HYBRIDS (Grain and Forage types)

**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, NE, ND, SD, WI, and WY. Apply the recommended rate of Atrazine 4L shown in Table 3 up to 45 days prior to planting. If an unsatisfactory length of weed control results from adverse environmental conditions following early treatment, a follow-up application of an appropriately labeled herbicide may be used. If the follow-up treatment includes atrazine, do not exceed the labeled rate for corn indicated in Table 1. Under dry conditions, irrigation after application is recommended to move Atrazine 4L 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 3. 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 before planting.

**PREEMERGENCE AT-PLANTING (Broadleaf and Grass Control):** Apply during or shortly after planting, but prior to weed or crop emergence at rate shown in Table 3.

**POSTEMERGENCE (Broadleaf and Grass Control):** Apply at rate shown in Table 3 before weeds exceed 1.5 inches in height and before sorghum reaches 12 inches in height.

**TABLE 3: Broadleaf and Grass Weed Control in Sorghum<sup>1,2</sup>**

### FOR ALL SOIL APPLICATIONS PRIOR TO CROP EMERGENCE

#### MAXIMUM BROADCAST APPLICATION RATES FOR CORN MUST BE AS FOLLOWS:

- **ON HIGHLY ERODIBLE SOILS** (as defined by SCS), if conservation tillage is practiced, leaving at least 30% of the soil covered with plant residues at planting, apply 2 lb ai/A (4 pints/A of Atrazine 4L) as a single preemergence application broadcast spray. If the soil coverage with plant residue is less than 30% at planting, a maximum of 1.6 lb ai/A (3.2 pints/A of Atrazine 4L) as a single preemergence application; or 2.0 lb ai/A of this product if only applied postemergence.
- **ON SOILS NOT HIGHLY ERODIBLE:** Apply a maximum of 2 lb ai/A (4 pints/A of Atrazine 4L) as a single preemergence application.

### FOR ALL POSTEMERGENCE APPLICATION

If no Atrazine was applied prior to sorghum emergence, apply a maximum of 2 lb ai/A (4 pints/A of Atrazine 4L) broadcast. If a postemergence treatment is required following an earlier herbicide application, the total atrazine applied may not exceed 2.5 lb ai/A (5 pints of Atrazine 4L) per calendar year.

<sup>1</sup>Do not apply preplant surface or preplant incorporated 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, the TX Gulf Coast and the Blacklands areas.

<sup>2</sup>Where there are state/local requirements regarding atrazine use (including lower maximum rates and/or greater setbacks) 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. The repeat application must not exceed 2.5 lbs. a.i. (5 pints Atrazine 4L) per acre per calendar year.

Preharvest Intervals (PHI): Preemergent sorghum forage uses: 60-day PHI; Postemergent sorghum forage uses: 45-day PHI.

**POSTEMERGENCE BROADLEAF WEED CONTROL WITH EMULSIFIABLE OIL OR OIL CONCENTRATE IN WATER:** Broadcast 2.4 pts./A of Atrazine 4L for control of many broadleaf weeds. Apply 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, apply when sorghum is 6 - 12 inches in height but before it reaches boot stage. In all other areas, apply after sorghum reaches the 3-leaf stage, but before it exceeds 12 inches in height. Add 1 gal. of emulsifiable oil/A for ground application and 0.5 gal./A for aerial application, or add 1 qt./A of oil concentrate for ground application. A cultivation may be necessary if all weeds are not controlled or if weeds regrow.

For the list of weeds controlled, see **Atrazine 4L, Applied Alone – Corn or Grain Sorghum – Postemergence with Emulsifiable Oil or Oil Concentrate in Water.**

Precautions for applications with emulsifiable oil or oil concentrate in water: See "Precautions for applications with emulsifiable oil or oil concentrate in water" in **Corn** section.

**POSTEMERGENCE BROADLEAF WEED CONTROL WITH SURFACTANT (CO, western KS, NM, OK, TX only):** Broadcast 2 - 4 pts./A of Atrazine 4L plus 0.75 - 1.5 pts. of surfactant after sorghum reaches 6 inches in height, but before weeds exceed 1.5 inches in height. Apply only on sandy loam and finer textured soil.

**USE PRECAUTIONS AND RESTRICTIONS FOR ALL APPLICATIONS TO SORGHUM:** (1) Heavy rain immediately following application tends to cause excessive concentrations of herbicide in seed furrow, resulting in possible crop injury. Do not apply to furrow-planted sorghum until furrows are leveled (plowed in). Level deep planter marks or seed furrows before application. (2) Application to sorghum growing under stress caused by minor element deficiency or to sorghum growing on highly calcareous soil may result in crop injury. (3) Following harvest, plow (moldboard or disk-plow) and thoroughly till soil in fall or spring to minimize possible injury to spring-seeded rotational crops, regardless of rate used. (4) Injury may occur if both this herbicide, preplant surface, preplant incorporated, or preemergence, and an at-planting systemic insecticide applied in-furrow are used. (5) Do not apply more than 2.5 lbs. active ingredient (5 pts. of this product) per acre per calendar year. (6) For all soil applications prior to crop emergence, except 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. (7) For postemergence applications, do not apply to sand or loamy sand, or injury may occur. (8) Do not graze or feed forage from treated areas for 60 days for preemergent sorghum, and 45 days for postemergent sorghum following application, or illegal residues may result.

## TANK MIXTURES FOR GRAIN SORGHUM

**Metolachlor:** Use as tank mixture with metolachlor for control of those weeds listed on the metolachlor label, as well as on this label. Use this tank mixture only on sorghum seed treated with Concep<sup>®</sup>. Refer to the metolachlor label for all directions, precautions, and limitations.

## WINTER WEED CONTROL IN TEXAS

For postemergence control of winter weeds only, such as henbit, seedling dock, and annual thistle on fall bedded land in the Gulf Coast and Blacklands of Texas. Apply 1.6 to 2 pints/A of Atrazine 4L postemergence to the weeds in November or December to land that will be planted to corn, grain or sorghum, or forage sorghum the following spring. For best results, add a suitable surfactant, such as X-77, 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 2 pints per acre.

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

**Use Precaution and Restriction:** Do not plant any crops except corn, grain sorghum or forage sorghum the spring following this treatment, or illegal residues may result.

## ATRAZINE 4L ALONE — CHEMICAL FALLOW

**Wheat-Sorghum-Fallow:** To control annual broadleaf and grass weeds following wheat harvest and in the following sorghum crop when grown under minimum tillage, broadcast 4.5 pints/A of Atrazine 4L to wheat stubble immediately following wheat harvest. If weeds are present at application, remove them with a sweep plow or other suitable implement after application, or use an approved contact herbicide before or after the application of Atrazine 4L. Plant sorghum into wheat stubble the following spring with minimum soil disturbance. 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.**

**USE PRECAUTIONS AND RESTRICTIONS:** (1) Use only on silt loam or finer-textured soil, or crop injury may result. (2) Wheat-Sorghum-Fallow cropping sequence must be followed. (3) Do not apply following sorghum harvest. (4) To avoid illegal residues, do not graze or feed forage from treated area to livestock. (5) To avoid illegal residues and crop injury, do not plant any crop other than those on this label within 18 months following treatment.

**Wheat-Corn-Fallow (CO, KS, ND, NE, SD and WY):** This product controls cheatgrass (downy brome, chess), Kochia, mustards, pigweed, Russian thistle, wild lettuce, wild sunflower, and volunteer wheat during period after wheat harvest. Weed control may extend into following corn crop grown under minimum tillage.

For soils in ND and SD with a pH greater than 7.5: Do not apply more than 1.5 pounds active ingredient per acre for any application of Atrazine 4L (3 pints/A). Do not apply more than one application per year. For soils in ND and SD with a pH of less than 7.5: Do not apply more than 1-2

pounds active ingredient per acre for any application. Do not apply more than one application per year. Use the higher rate on fine-textured soils and where heavy weed infestations are expected. Use the lower rate on coarse-textured soils and where light weed infestations are expected. In the event grasses are present in the following spring, use a grass herbicide registered for use on corn. *For all other locations:* Do not apply more than 2.25 pounds active ingredient per acre for any application. Do not apply more than one application per year.

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, NE, ND, SD, and WY):** For preemergence 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 of Atrazine 4L on all soils except those listed under **USE PRECAUTIONS AND RESTRICTIONS**. 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)**

**Paraquat:** If weeds are present at application, a tank mix with a product containing paraquat may be used. Broadcast 4.5 pints of Atrazine 4L plus 0.5 - 0.8 lbs. of paraquat cation a.i. in 20 - 60 gallons of water/A by ground equipment. Add 0.5 to 1 pint of a nonionic surfactant, such as X-77, per 100 gallons of spray mixture. Add Atrazine 4L 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 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 product label for further directions, precautions, and limitations.

### **Wheat-Fallow-Wheat (CO, KS, MT, NE, ND, SD, and WY)**

**Paraquat:** If weeds are present at application, a tank mix with a product containing paraquat may be used. Broadcast 1 - 2 pints of Atrazine 4L plus 0.5 - 0.8 lbs. of paraquat cation a.i. in 20 - 60 gallons of water/A by ground equipment. Add 0.5 to 1 pint of a nonionic surfactant, such as X-77, per 100 gallons of spray mixture. Add Atrazine 4L to spray tank first and thoroughly mix with water. Then add paraquat, followed by surfactant. Use the high 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.

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.

**USE PRECAUTIONS AND RESTRICTIONS:** *To avoid crop injury, (1) Do not use on sand soil. (2) Do not treat eroded hillsides, caliche and rocky outcroppings, or exposed 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 or soils with a pH greater than 7.5. (5) Avoid spray overlap. (6) 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 of Atrazine 4L in a minimum of 10 gals. 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, bluegrama, bromegrass, buffalograss, crested wheatgrass, indiangrass, little bluestem, sideoats 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.

**USE PRECAUTIONS AND RESTRICTIONS:** *To avoid illegal residues, (1) Do not cut or feed roadside grass hay. (2) Do not allow livestock to graze treated areas. (3) Do not apply more than 1.0 pound active ingredient per acre for any application. Do not apply more than one application per year.*

## CONSERVATION RESERVE PROGRAM (CRP) (NE, OK, OR, AND TX)

For control or suppression of the following weeds: annual ragweeds, barnyardgrass, black nightshade, cheat, cocklebur, downy brome, fall panicum, field pennycress, giant foxtail, yellow foxtail, Japanese brome, Kentucky bluegrass, kochia, lambsquarters, little barley, marestalk, pigweed, prickly lettuce, smooth brome, and sunflower, refer to the directions, notes, and precautions below:

### **Pure stands of newly seeded big bluestem, switchgrass, and eastern gamagrass**

Use only on loam, silt loam, silty clay loam, clay loam, and silty clay soils with at least 1% organic matter.

**Establishment:** Broadcast 2 qts./A of Atrazine 4L preplant incorporated or preemergence at time of seeding and prior to emergence of weeds. Prepare a good firm seedbed. Plant 1/2 inch deep with a grassland drill (preferred method) or a conventional drill. If a conventional drill is used on prepared seedbeds, remove all tension from the disk openers. For best results, cultipack or roll after planting.

### **Renovation of existing stands of big bluestem and switchgrass planted on CRP acres**

Broadcast 1 - 2 qts./A of Atrazine 4L to existing stands of big bluestem and switchgrass prior to the emergence of weeds. Use the low rate on soils containing from 1 - 2% organic matter. Use the high rate on soils with 2% or more organic matter.

**Renovation of existing stands of the following perennial range grasses planted on CRP acres:** Blue grama, indiagrass, little bluestem, sand lovegrass, sideoats grama, and western wheatgrass. Broadcast 0.5 - 1 qt./A of Atrazine 4L in the spring prior to weed emergence, or in the fall before the ground freezes and prior to weed emergence after these species have been established for at least one growing season for control or partial control of the weeds listed above. Use the low rate for weeds controlled or suppressed easily. Use the higher rate on other weeds claimed in an earlier section of this label.

**Aerial Application:** Make applications at a maximum height of 10 ft. above vegetation. Use low-drift nozzles at a maximum pressure of 40 psi. Restrict application to periods when wind speed does not exceed 10 mph to control drift. To assure that drift will not adversely affect adjacent sensitive nontarget plants, apply Atrazine 4L by aircraft at a minimum upwind distance of 400 ft. from sensitive plants. Use 3 - 5 gals./A total water volume; use the higher water volume when a dense, heavy ground cover is present.

**USE PRECAUTIONS AND RESTRICTIONS:** (1) Do not cut or feed grass hay to livestock. (2) Do not graze treated areas. (3) Do not use seeds for bird food. (4) Do not dump or spill product or dispose of containers within reach of livestock. (5) Follow all applicable restrictions for the Conservation Reserve Program. (6) Do not make more than one application per year. Do not apply more than 2 pounds active ingredient per acre for any application (2 quarts/A of Atrazine 4L). (7) Slight discoloration of desirable grasses may occur following treatment. Injury may be enhanced when used on neutral or alkaline soils.

## SEVERE DROUGHT CONDITIONS

Do not graze forage or cut forage for hay. Under severe drought conditions, the Conservation Reserve Program allows grazing and making of hay from CRP acres, as so specified by the local ASCS (Agricultural Stabilization & Conservation Service) office. This label **does not** allow grazing or making of hay from CRP acres that have been treated with atrazine under any circumstance.

## SUGARCANE

### General Use Directions for All States

For control of many broadleaf and grass weeds, including amaranths, crabgrass, fireweed, Flora's paintbrush, foxtails, junglerice and wiregrass, broadcast 4 - 8 pts./A of Atrazine 4L at time of planting or ratooning, but before sugarcane emerges. Broadcast aerially in a minimum of 5 gals. of spray per acre, or broadcast or band by ground equipment in a minimum of 20 gals. per acre, unless indicated otherwise. One additional application may be made over the sugarcane as it emerges, and two additional applications may be made interline after emergence as directed sprays. 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 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:** 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.

**USE PRECAUTIONS AND RESTRICTIONS (for all states and uses):** (1) Injury to sugarcane may occur when under moisture stress, when soil is of low absorptive capacity, or when land is first cropped to sugarcane. (2) Do not apply after close-in. (3) Do not apply more than 4.0 pounds active ingredient per acre (8 pints/A of Atrazine 4L) for any application. (4) Do not apply more than 10.0 pounds active ingredient per acre (20 pints/A of Atrazine 4L) per crop.

For specific weed problems, the following may be used. Other rate and application timings may be used for other weed spectrums and cultural practices, provided they are within the above "General Use Directions for All States" and are consistent with the "USE PRECAUTIONS AND RESTRICTIONS (for all states and uses)".

### FLORIDA

**For control of emerged peltitory weed:** Apply 0.8 - 1.2 pts./A of Atrazine 4L in at least 40 gals. of water as a directed spray by ground equipment prior to close-in. Add 4 qts. of surfactant for each 100 gals. of spray. Thoroughly cover weed foliage.

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 of Atrazine 4L preemergence. Follow with one or two applications, as needed, postemergence to sugarcane and weeds at 4 pts./A of Atrazine 4L. Treat before weeds exceed 1.5 inches in height.
2. Apply 1 - 3 times, as needed, at 4 pts./A of Atrazine 4L postemergence to sugarcane and weeds. Treat before weeds exceed 1.5 inches in height.

### LOUISIANA

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

**USE PRECAUTIONS AND RESTRICTIONS:** To avoid crop injury, (1) Do not apply more than 20 pints/A of Atrazine 4L to any one crop of sugarcane. (2) If making a 4 pts./A of Atrazine 4L application during the summer fallow period, do not exceed 8 qts./A of Atrazine 4L during the 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 pints/A of Atrazine 4L postemergence to sugarcane and weeds.

For best results when weeds are emerged, add a nonionic surfactant at a concentration of 4 pints/100 gals. to the spray and apply before weeds exceed 1.5 inches in height.

## TURFGRASSES FOR SOD (Florida Only)

### St. Augustine, Centipedegrass, and Zoysia Grass

Broadcast 4 - 8 pts./A of Atrazine 4L according to soil texture to control those weeds listed under **Atrazine 4L Applied Alone – Corn or Grain Sorghum – Preplant Surface-Applied, Preplant Incorporated, or Preemergence.**

Soil Texture	Broadcast Rate Per Acre	Application Timing
Muck or Peat	8 pts.	Old beds: Within 2 days after lifting sod. New beds: 3 - 4 days after sprigging or plugging.
Sandy Soil	4 pts.	Old beds: Within 2 days after lifting sod. New beds: 7 - 10 days after sprigging or plugging.

If weeds regrow, apply an additional 4 pts./A of Atrazine 4L on muck or peat, or 2 pts./A of Atrazine 4L on sandy soil.

**USE PRECAUTIONS AND RESTRICTIONS:** 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 infestation of insects, nematodes, and diseases. (4) On newly sprigged turfgrass, temporary slowing of growth may follow application. (5) For muck or peat soils, do not apply more than 4 lbs. a.i./A for any application. Do not apply more than 6 lbs. a.i. per year. (6) For sandy soils, do not apply more than 2 lbs. a.i./A for any application. Do not apply more than 3 pounds a.i. per year.

## TURFGRASSES FOR FAIRWAYS, LAWNS\*, SOD PRODUCTION\*\* AND SIMILAR AREAS

**\*Turfgrass at Residential Sites (including homes, daycare facilities, schools, playgrounds, parks, recreational areas, and sports fields):** Do not apply more than 1.0 pound active ingredient per acre for any application. Do not apply more than 2.0 pounds active ingredient per acre per year.

**\*\*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 spurweed. 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** 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 2 pints/A of Atrazine 4L (22 ml or 0.75 fl. oz. per 1,000 sq. ft.) Do not exceed 2 pints/A of Atrazine 4L per treatment on newly sprigged turfgrass or on hybrid bermudagrass such as Tiflawn, Tifway, and Ormond.

For continued summer annual weed control, apply another 2 pints/A of Atrazine 4L 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.

**USE PRECAUTIONS AND RESTRICTIONS:** 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 turfgrasses 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 rainfall areas of eastern OK and eastern TX. (4) Do not use on muck or alkaline soils. (5) Do not apply over the rooting area of trees or ornamentals not listed on this label. (6) Do not overseed with desirable turfgrass within 4 months before or 6 months after treatment. (7) Do not apply this product to newly seeded bermudagrass until it has been overwintered and has a well-developed rhizome system. Do not exceed 2 qts. product/A within 12 months of seeding bermudagrass. (8) Do not graze or feed turf clippings to animals, or illegal residues may result.

## MACADAMIA NUTS

For preemergence control of many broadleaf and grass weeds, including crabgrass, foxtail, wiregrass, Florida's paintbrush, spanishneedles, and fireweed, broadcast 4 - 8 pts./A of Atrazine 4L before harvest and before weeds emerge. Do not apply more than 4 pounds active ingredient per acre for any application. Repeat as necessary. Do not apply more than 8 pounds active ingredient per year. 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 pts./A of Atrazine 4L in 20-50 gals. of spray mix preemergence or early postemergence to weeds. When applying postemergence, the use of a surfactant and great 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.

**USE PRECAUTIONS AND RESTRICTIONS:** *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.*

## 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, lodgepole pine (shore pine), monterey pine, ponderosa pine, Scotch pine, slash pine, blue spruce, and Sitka spruce): Broadcast 4 - 8 pts. of Atrazine 4L 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 new transplants, apply during or soon after transplanting. 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.

For the list of weeds controlled, see **Atrazine 4L Applied Alone — Corn or Grain Sorghum — Preplant Surface-Applied, Preplant Incorporated, or Preemergence.**

**QUACKGRASS CONTROL:** Broadcast 8 pts. of Atrazine 4L 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.

**USE PRECAUTIONS AND RESTRICTIONS:** *(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 Atrazine 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 upwind distance of 400 ft. from sensitive plants.

NOTE: In very hilly or mountainous terrain where the 10 ft. flying height is unsafe, fly as low as possible. There may be increased risk of spray drift and uneven application.

## WARRANTY AND LIMITATION OF DAMAGES

CONDITIONS OF SALE: Sipcarn Agro USA, Inc. warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated on the label when used in accordance with the directions under normal conditions of use. This warranty does not extend to the uses of this product contrary to label instructions, or under abnormal use conditions, or under conditions not reasonably foreseeable to Sipcarn Agro USA, Inc.. SIPCARN AGRO USA, INC. DISCLAIMS ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING ANY WARRANTY OF FITNESS OR MERCHANTABILITY. SIPCARN AGRO USA, INC. SHALL NOT BE LIABLE FOR CONSEQUENTIAL, SPECIAL, OR INDIRECT DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, AND SIPCARN AGRO USA, INC.'S SOLE LIABILITY AND BUYER'S AND USER'S EXCLUSIVE REMEDY SHALL BE LIMITED TO THE REFUND OF THE PURCHASE PRICE. BUYER AND USER ACKNOWLEDGE AND ASSUME ALL RISKS AND LIABILITY RESULTING FROM HANDLING, STORAGE AND USE OF THIS PRODUCT. SIPCARN AGRO USA, INC. DOES NOT AUTHORIZE ANY AGENT OR REPRESENTATIVE TO MAKE ANY OTHER WARRANTY, GUARANTEE OR REPRESENTATION CONCERNING THIS PRODUCT.

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(081704) 10/04

# NOTES





# 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 precautionary statements and instructions for use in order to minimize potential for Atrazine to reach ground and surface water.



## SIPCAM AGRO USA, INC. **ATRAZINE 4L**



### **FLOWABLE HERBICIDE**

For Season-Long Weed Control in Corn and Sorghum For Weed Control in Certain Other Crops

**ACTIVE INGREDIENTS:**

Atrazine (2 - chloro - 4 - ethylamino - 6 - isopropylamino - s - triazine) .....	40.8%
Related compounds .....	2.2%

<b>OTHER INGREDIENTS:</b> .....	57.0%
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<b>TOTAL:</b> .....	100.0%
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This product contains 4 lbs. of atrazine per gallon.

**KEEP OUT OF REACH OF CHILDREN  
CAUTION**

See attached booklet for additional precautionary statements. Shake well before using.

NET CONTENTS: 2.5 GALLONS  
(9.5 LITERS)

MANUFACTURED FOR:  
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