

34704-69

04/25/2013

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

OFFICE OF
CHEMICAL SAFETY AND
POLLUTION PREVENTION

Chris Mason, Ph.D.
Loveland Products, Inc.
3005 Rocky Mountain Ave.
Loveland, CO 80538

APR 25 2013

Subject: Label Amendment – Revise Master Label
CSF Amendment – Revise Basic and Add Alternate A, B, C, D, and E
Atrazine 4L
EPA Reg. No. 34704-69
Email Resubmission Dated – April 8, 2013

Dear Dr. Mason:

The labeling referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), as amended, is acceptable. The Agency has also reviewed your submission for new and revised Confidential Statements of Formula, and the following comments apply:

The Basic Confidential Statement of Formula dated January 31, 2013 is acceptable and supersedes all previous versions of the basic CSF.


Alternate Formulations A, B, C, and E, dated January 31, 2013 are all acceptable and have been placed in the product's file.

Alternate Formulation D dated September 7, 2012 is acceptable and has been placed in the product's file.

Amended labeling and basic CSF will supersede all previously accepted ones. A stamped copy of labeling is enclosed for your records. Per 40 CFR 156.10(6), submit one copy of your final printed labeling before you release the product for shipment.

If you have any questions regarding this action, please contact Maggie Rudick at rudick.maggie@epa.gov or (703) 347-0257.

Sincerely,


Kable Bo Davis
Product Manager 25
Herbicide Branch
Registration Division (7505P)

**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. 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.



ATRAZINE 4L

HERBICIDE

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

ACTIVE INGREDIENTS:

Atrazine (2-chloro-4-ethylamino-6-isopropylamino-s-triazine)	42.6%
Related compounds	0.9%
OTHER INGREDIENTS:	56.5%
TOTAL	100.0%

Atrazine 4L contains 4.0 pounds active ingredients per gallon.

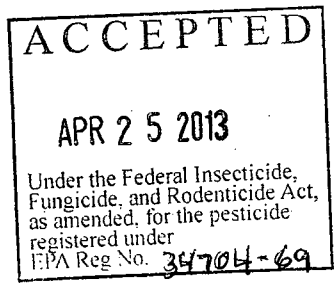
KEEP OUT OF REACH OF CHILDREN CAUTION

FIRST AID

If swallowed:	<ul style="list-style-type: none"> • Call a poison control center or doctor immediately for treatment advice. • Have a person sip a glass of water if able to swallow. • Do not induce vomiting unless told to do so by the poison control center or doctor. • Do not give anything by mouth to an unconscious person.
If inhaled:	<ul style="list-style-type: none"> • Move person to fresh air. • If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. • Call a poison control center or doctor for further treatment advice.
If on skin or clothing:	<ul style="list-style-type: none"> • Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15 to 20 minutes. • Call a poison control center or doctor for treatment advice.
If in eyes:	<ul style="list-style-type: none"> • Hold eye open and rinse slowly and gently with water for 15 to 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.

FOR A MEDICAL EMERGENCY INVOLVING THIS PRODUCT CALL: 1-866-944-8565.
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 slurry of activated charcoal may be considered.

See Below For Additional Precautionary Statements



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EPA EST. NO. 34704-MS-001
NET CONTENTS 2.5 GAL (9.46 L)

EXP 09/12 AI

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**PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS
CAUTION**

Harmful if swallowed, inhaled or absorbed through the skin. Avoid contact with skin, eyes, or clothing. Causes moderate eye irritation. Keep away from food and feedstuffs.

Personal Protective Equipment (PPE):

Some materials that are chemical-resistant to this product are listed below. If you want more options, follow the 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, nitrile rubber, neoprene rubber 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, nitrile rubber, neoprene rubber 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 material 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 3.0 pounds active ingredient per acre 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

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 feet 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

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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 terraced fields containing standpipes:

- Do not apply within 66 feet of standpipes in tile-outletted terraced fields.
- Apply this product to the entire tile-outletted terraced field and immediately incorporate it to a depth of 2 to 3 inches in the entire field.
- Apply this product to the entire tile-outletted terraced 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.

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 wash water.

DIRECTIONS FOR USE

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], 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 Loveland Products, Inc. for a refund.

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

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

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 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,
- Chemical-resistant gloves such as any waterproof material, and
- Shoes 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.

PRODUCT 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 emerge.

***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 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.

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

Note: Loveland Products, Inc. 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 Loveland Products, Inc.

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 finer 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 5.0 gallons of water per acre for preplant incorporated, pre-emergence and post (without oil or surfactant) applications. Use a minimum of 10.0 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	x	Rate per acre	=	Amount needed
Row width in inches		for broadcast		for band
		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 1.0 quart of product and is mixed with 1.0 quart of water) to be applied per acre. For postemergence treatments, on corn and sorghum, apply the specified rate of Atrazine 4L or Atrazine 4L plus oil in a minimum of 2.0 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.

Chemigation: 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.

TANK MIX REQUIREMENTS

When tank-mixing or sequentially applying atrazine and/or simazine or products containing atrazine and/or simazine to Corn or Sorghum, do not exceed a combined application rate of 2.0 pounds combined active ingredient per acre for any single application and the total pounds of atrazine and/or simazine applied (pounds per acre) must not exceed 2.5 pounds combined active ingredient 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 (pounds active ingredient per acre) must not exceed the specific seasonal rate limits as noted in the use directions.

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 fertilizers causing crop injury.

IMPORTANT - Check the compatibility of this product with liquid fertilizers 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.

Dry Bulk Fertilizer Impregnation Uses:

- Impregnation of bulk fertilizer is restricted to commercial facilities. On-farm fertilizer impregnation is prohibited.
- No more than 500 tons of dry bulk fertilizer can be impregnated per day.
- No single facility may impregnate fertilizer with this product for more than 30 days per calendar year.
- The commercial facility impregnating the dry bulk fertilizer must inform, in writing, the user (applicator) of the dry bulk fertilizer that:
 - Applicators must wear long-sleeved shirt, long pants, shoes and socks.
 - The restricted entry interval is 12 hours.

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

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this possibility, follow directions, procedures, and use precautions below. Use a crop oil designed for use with this product containing 1 to 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 or other materials can cause compatibility problems and/or crop injury.

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

- 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.
- Do not use oil in Atrazine 4L sprays when treating inbred lines or any breeding stock as injury may occur.
- Adding other insecticides, herbicides, liquid fertilizers or other materials is not recommended because they may cause compatibility problems or crop injury.
- Store and handle emulsifiable oil carefully. Oil contaminated with even a small amount of water may not emulsify properly when added to the tank.
- Do not make more than one application of Atrazine 4L and emulsifiable oil in water per season.

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 1/2 to 2/3 full with clean water.
3. Start agitation.
4. Pour product directly from container into tank.
5. Add emulsifiable 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.

SPRAY DRIFT MANAGEMENT

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.

- The distance of the outer most nozzles on the boom must not exceed 3/4 the length of the wingspan or rotor.
 - Nozzles must always point backward parallel with the air stream and never be pointed downwards more than 45 degrees.
- Where states have more stringent regulations, they shall be observed.

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

Importance 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 section of this label).

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 - Use the lower spray pressures recommended for the nozzle. Higher pressure reduces droplet size and does not improve canopy penetration. 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. 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 larger droplets than other nozzle types.

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

Applications must not be made at a height greater than 10 feet 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.

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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 to 10 mph. However, many factors, including droplet size and equipment type determine drift potential at any given speed. Application must 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 must 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 must 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).

ROTATIONAL CROP DIRECTIONS 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.
- 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.
- In Western Minnesota and Eastern parts of the Dakotas, Nebraska, and Kansas, Corn or Sorghum treated with Atrazine 4L should not be followed with Soybeans if the broadcast rate applied was more than 4.0 pints per acre (or comparable rate in a band) or injury may occur.
- Injury may occur to Soybeans planted in North Central Iowa and South Central Minnesota the year following an Atrazine 4L application on Harps, Canisteo, Stroden or other soils having calcareous surface layer.
- Do not plant Sugar beets, Tobacco, Vegetables, (including Dry beans), Spring-seeded 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 4.0 Pints per Acre (See CORN and SORGHUM sections of label):

- Grass weeds:
- Barnyardgrass (watergrass)**
 - Giant foxtail*
 - Green foxtail**
 - Large (hairy) crabgrass*
 - Wild oats
 - Witchgrass (*Panicum capillare*) **
 - Yellow foxtail*

- Broadleaf Weeds:
- Cocklebur*
 - Kochia*
 - Lambsquarters*
 - Morningglory (annual)
 - Mustard
 - Nightshade*
 - Pigweed*
 - Purslane
 - Ragweed
 - Velvetleaf (buttonweed)**

Note: For best control of Cocklebur and Velvetleaf, do not apply less than the specified 4.0 pints per acre.

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Postemergence with Emulsifiable Oil or Oil Concentrate in Water at 2.4 Pints per Acre

- Broadleaf Weeds: Cocklebur*
 Lambsquarters*
 Morningglory (annual)
 Mustard
 Pigweed*
 Ragweed
 Smartweed
 Wild buckwheat

* Maximum rate limitations and local resistance may result in suppression only or lack of control. Refer to IMPORTANT NOTE within PRODUCT INFORMATION SECTION of this label.

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

MAXIMUM RATES PRIOR TO CORN OR SORGHUM EMERGENCE

For single preemergent broadcast applications (including early preplant, preplant incorporated, preplant surface, at planting or pre-emergence) the following maximum use rates apply.

Soil Erodibility Classification*	Plant Residue Amount	Maximum Rate/Acre
Highly erodible	30% or more (conservation tillage program)	2.0 lb AI
	Less than 30% (conventional tillage program)	1.6 lb AI
Not highly erodible	No limit	2.0 lb AI

*As defined by the Natural Resource 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/Acre/Calendar Year
No	2.0 lb AI postemergence
Yes	2.5 lb AI combined from soil and postemergence applications

Atrazine 4L contains 0.5 pound 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 1.5 inches in height and before corn is 12 inches tall, at the rate indicated in Table 1B. When using nitrogen solutions, direct the spray to avoid Corn foliage injury. Maintain agitation in spray tank during application.

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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/Acre¹
Highly erodible	30% or more (conservation tillage program)	4.0 pt
	Less than 30% (conventional tillage program)	3.2 pt
Not highly erodible	No limit	4.0 pt

*As defined by the Natural Resource Conservation Service

B. FOR CORN POSTEMERGENCE APPLICATION

Previous Soil Application of Atrazine to Crop	Total Maximum Rate/Acre/Calendar Year
No	4.0 pt postemergence
Yes	5.0 pt combined from soil and postemergence applications

Postemergence applications to Corn must be made before Corn reaches 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 2.4 pints 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 use precautions under "Application in water plus emulsifiable oil or oil concentrate."

BROADLEAF AND GRASS CONTROL: Broadcast 4.0 pints per acre after weed emergence, but before weeds reach 1.5 inches in height and before Corn is 12 inches tall. Add emulsifiable oil at rate of 1.0 gallon per acre for ground applications and 0.5 gallon per acre for aerial applications. Add oil concentrate at rate of 1.0 quart per acre for ground applications.

BROADLEAF CONTROL: Broadcast 2.4 pints 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 1.0 gallon per acre for ground applications and 0.5 gallon per acre for aerial applications. Add oil concentrate at rate of 1.0 quart 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 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

When tank-mixing or sequentially applying atrazine and/or simazine or products containing atrazine and/or simazine to Corn or Sorghum, do not exceed a combined application rate of 2.0 pounds combined active ingredient per acre for any single application and the total pounds of atrazine and/or simazine applied (pounds per acre) must not exceed 2.5 pounds combined active ingredient per year.

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 4.0 pints Atrazine 4L and specified label rate of paraquat per acre in 20.0 to 60.0 gallons of water per acre. Following the paraquat label, add specified 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 4L + Alachlor

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, Lambsquarters, 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 use precautions on this and the alachlor label must also be followed.

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**Atrazine 4L + Alachlor + 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 by air.

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 use precautions on this and the alachlor and paraquat or glyphosate labels must be followed.

Atrazine 4L + Propachlor

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, Barnyardgrass (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 2.1 to 3.2 pints of Atrazine 4L plus specified rate of propachlor 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 2.8 pints per acre of Atrazine 4L in the tank mixture will give better control of Annual morningglory, Buttonweed (Velvetleaf), Cocklebur and Sunflower.

Apply in a minimum of 20.0 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.

**Atrazine 4L + Dual II MAGNUM® (Metolachlor) 7.64EC or Atrazine 4L + Dual II MAGNUM (Metolachlor) 7.64EC + Simazine
PREPLANT/PREEMERGENCE**

Use a tank mixture of Atrazine 4L + Metolachlor 7.64EC or Atrazine 4L + Metolachlor 7.64EC + simazine as a preplant surface, preplant incorporated or pre-emergence application for the control of Barnyardgrass, Crabgrass, Crowfootgrass, Fall panicum, Foxtail millet, Giant foxtail, Goosegrass, Green foxtail, Prairie cupgrass, Red rice, Signalgrass (Brachiaria), Southwestern cupgrass, Witchgrass, Yellow foxtail, 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 7.64EC label. Note, where directions specify AAtrex® 4L, substitute Atrazine 4L. All applicable directions, limitations, and use precautions on this and the Metolachlor 7.64EC and simazine labels must be followed.

POSTEMERGENCE

Use a tank mixture of Atrazine 4L plus Metolachlor 7.64EC as a postemergence application for the control of Barnyardgrass, Crabgrass, Crowfootgrass, Fall panicum, Foxtail (Giant, Green and Yellow), Jimsonweed, Mustard, Pigweed, Prickly sida, Purslane, Ragweed, Smartweed, and Velvetleaf and for partial control of Cocklebur, Morningglory, and Yellow nutsedge. To apply, follow the tank mix directions appearing on the Metolachlor 7.64EC label. Note, where directions specify AAtrex 4L, substitute Atrazine 4L. All applicable directions, limitations, and precautions on the Metolachlor 7.64EC label must be followed.

Atrazine 4L + Dual II MAGNUM (Metolachlor) 7.64EC + Paraquat or Atrazine 4L + Dual II MAGNUM (Metolachlor) 7.64EC + Glyphosate or Atrazine 4L + Dual II MAGNUM (Metolachlor) 7.64EC + Simazine + Paraquat or Atrazine 4L + Dual II MAGNUM (Metolachlor) 7.64EC + Simazine + Glyphosate.

For Minimum-Tillage or No-Tillage Systems.

Use a tank mixture of Atrazine 4L + Metolachlor 7.64EC with paraquat or glyphosate, or Atrazine 4L + Metolachlor 7.64EC + 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 7.64EC label. Note, where directions specify AAtrex 4L, substitute Atrazine 4L. All application directions, limitations, and use precautions on this and the Dual II MAGNUM, simazine, paraquat and glyphosate labels must be followed.

Atrazine 4L + 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. For control of most weeds, apply 2.0 pints of Atrazine 4L plus 2.0 pints Simazine 4L per acre. For control of expected heavy infestations of

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Crabgrass and Fall panicum, apply 1.32 pints of Atrazine 4L plus 2.64 pints Simazine 4L per acre. When using Simazine 90DF, use equivalent active ingredient rates. One pound of Simazine 90DF equals 1.8 pints of Simazine 4L. 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 as split treatment 30 to 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, use precautions, and limitations on this and the simazine label must be followed.

Atrazine 4L + Simazine 4L, or Simazine 90DF with Glyphosate

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 use precautions on this, the simazine, and the glyphosate label must be followed.

Atrazine 4L + 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 2.0 to 4.0 pints of Atrazine 4L plus 1.25 to 2.0 to 4.0 pints Simazine 4L, or 1.10 to 2.20 pounds Simazine 90DF (do not exceed a combined application rate of 2.0 pounds combined active ingredient per acre) plus the specified label rate of paraquat in 20.0 to 60.0 gallons of water per sprayed acre. Make broadcast application before, during, or after planting, but before emergence of Corn. Add 0.5 pint 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 not be controlled.

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

USE RESTRICTIONS FOR ALL APPLICATIONS TO CORN

- Do not exceed an application rate of 2.0 pounds active ingredient of atrazine per acre for any single application, and the total pounds of atrazine applied (pounds active ingredient per acre) must not exceed 2.5 pounds active ingredient per acre per year.
- Follow a preharvest interval of 60 days for Field corn forage use and 45 days for Sweet corn forage use.
- Do not graze treated area or feed treated forage to livestock for 21 days following application.

USE PRECAUTIONS FOR ALL APPLICATIONS TO CORN

- Following harvest of a treated crop, plow (moldboard or disk-plow) and thoroughly till the soil in the fall or spring to minimize possible injury to rotational spring-seeded crops, regardless of the rate used.
- For postemergence applications plus emulsifiable oil, see additional use precautions under "Application in water plus emulsifiable oil or oil concentrate."
- Postemergence application to Corn must be made before crop reaches 12 inches in height.

**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 fine 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 2. 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.

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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 2.

TABLE 2
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/Acre ¹
Highly erodible	30% or more (conservation tillage program)	4.0 pt
	Less than 30% (conventional tillage program)	3.2 pt
Not highly erodible	No limit	4.0 pt

* As defined by the Natural Resource 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 pounds active ingredient per acre 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 Groundcherry, Lambsquarters, Morningglory, Mustard, Pigweed and Purslane, broadcast 1.6 to 2.4 pints 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.

Use 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 8 months following application. Corn may be planted immediately.

Postemergence Broadleaf and Grass Weed Control:

Apply before weeds exceed 1.5 inches in height at the rate indicated in Table 3. Sorghum should be completely emerged. Applications may be made up before crop height reaches 12 inches.

TABLE 3
FOR SORGHUM POSTEMERGENCE APPLICATION

Previous Soil Application of Atrazine to Crop	Total Maximum Rate Per Acre Per Calendar Year
No	4.0 pts postemergence
Yes	5.0 pts combined from soil and postemergence applications

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

Broadcast 2.4 pints 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 6 inches in height, before all other weeds reach 4 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 to 10 inches in height, but before it reaches 12 inches tall. In all other areas, apply after Sorghum reaches the three-leaf stage and before Sorghum reaches 12 inches tall. Add emulsifiable oil at the rate of 1.0 gallon per acre for ground applications and 0.5 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 use 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 2.4 pints of Atrazine 4L plus 0.75 to 1.5 pints of surfactant per acre when Sorghum is 6 to 11.75 inches in height, but before weeds reach 1.5 inches in height. Apply only on sandy loam and finer textured soils.

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TANK MIXTURES WITH ATRAZINE 4L IN SORGHUM

Atrazine 4L + DUAL II MAGNUM (METOLACHLOR) 7.64 EC (FOR USE ONLY ON SEED TREATED WITH CONCEP®)

Use a tank mixture of Atrazine 4L + Metolachlor 7.64 EC 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 7.64 EC label for directions, precautions, and limitations.

USE RESTRICTIONS FOR ALL APPLICATIONS TO SORGHUM

- Follow a 60-day preharvest interval for preemergent Sorghum forage use and a 45-day preharvest interval for postemergent Sorghum forage use.
- Do not graze or feed forage from treated areas for 21 days following application.
- Do not exceed an application rate of 2.0 pounds active ingredient of atrazine per acre for any single application, and the total pounds of atrazine applied (pounds active ingredient per acre) must not exceed 2.5 pounds active ingredient per acre per year.
- 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.
- Postemergence application to Sorghum must be made before crop reaches 12 inches in height.

USE 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.
- 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.
- For applications to furrow-irrigated bedded Sorghum in Arizona and California and for postemergence applications plus emulsifiable oil, see additional use precautions under "Application in water plus emulsifiable oil or oil concentrate."

SORGHUM POSTEMERGENCE WINTER WEED CONTROL IN TEXAS

For use on fall bedded land and in the Gulf Coast and Blacklands of Texas. Broadcast 0.8 to 1.0 quart 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 1.0 quart per acre.

Normal weed control programs may be used in the following Corn, Grain sorghum, or Forage sorghum crop.

Note: Do not plant any crops except Corn, Grain sorghum, or Forage sorghum the spring following this treatment.

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 4.5 pints 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.

Use Restrictions:

- Use only on silt loam or finer textured soil.
- Wheat-Sorghum-fallow cropping sequence must be followed.
- Do not apply following Sorghum harvest.
- 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 lack of control of some weeds. Refer to IMPORTANT NOTE within PRODUCT 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 4.5 pints 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

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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.

Use Restrictions:

- Use only on silt loam or finer textured soil.
- Wheat-Corn-fallow cropping sequence must be followed.
- Do not apply following Corn harvest.
- 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 lack of control. Refer to IMPORTANT NOTICE within PRODUCT 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 1.0 to 2.0 pints per acre. Use higher rate to control Wild sunflower and Pigweed*.

Use Restrictions:

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

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

CHEMICAL FALLOW USE RESTRICTIONS

For soils in North and South Dakota with a pH of 7.5 or greater:

- Do not apply more than 1.5 pounds active ingredient per acre for any application.
- Do not apply more than one application per cycle.

For soils in North and South Dakota with a pH of less than 7.5:

- Do not apply more than 2.0 pounds active ingredient per acre for any application.
- Do not apply more than one application per cycle.

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 cycle.

SUGARCANE

To control many broadleaf and grass weeds, such as Amaranths*, Crabgrass, Fireweed, Flora's paintbrush, Foxtails*, Junglerice*, and Wiregrass, apply 4.0 to 8.0 pints per acre at the time of planting or ratooning, but before emergence of Sugarcane. Broadcast by air in a minimum of 5.0 gallons of spray per acre, or broadcast or band by ground equipment in a minimum of 20.0 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 1.0 quart of water for each 2.0 pints 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 PRODUCT INFORMATION SECTION of this label.)

FLORIDA

To control emerged Pellitory weed, apply 0.8 to 1.2 pints per acre in at least 40.0 gallons of water per acre. Apply as a directed spray, by ground equipment, prior to close-in. Add 4.0 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 ratooning:

1. Apply 8.0 pints per acre, preemergence. Make 1 or 2 additional applications, as needed, postemergence to Sugarcane and weeds, at 4.0 pints per acre. Make application before weeds are greater than 1.5 inches in height.
2. Apply 1 to 3 times, as needed, at 4.0 pints per acre postemergence to both Sugarcane and weeds. Make application before weeds are greater than 1.5 inches in height.

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LOUISIANA

To control annual weeds during summer fallow period, apply 4.0 pints per acre to weed free beds, immediately after beds are formed. After planting, follow normal weed control.

Use Restrictions:

- Do not apply more than 20.0 pints per acre to any one Sugarcane crop.
- If applying 4.0 pints per acre during summer fallow period, do not apply more than 8.0 pints per acre during the remainder of the growing season.

TEXAS

To control Barnyardgrass*, Pigweed*, Purslane, and Sunflower, in plant or ratoon Sugarcane, apply preemergence at 8.0 pints per acre. Make 1 or 2 additional applications, as needed, at 6.0 pints per acre postemergence to Sugarcane and weeds.

To achieve best results when weeds are emerged, add a nonionic surfactant at a concentration of 4.0 pints per 100 gallons of spray and apply before the weeds are greater than 1.5 inches in height.

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

Use Restrictions:

- Do not apply more than 4.0 pounds active ingredient per acre for any application.
- Do not apply more than 10.0 pounds active ingredient per acre per crop.
- Do not apply after close-in.
- Do not apply more than 20.0 pints per acre to any one crop of Sugarcane.

Use Precautions:

- Sugarcane may be injured when under moisture stress, when soil is of low absorptive capacity, or when land is first planted to Sugarcane.

MACADAMIA NUTS

For preemergence control of many broadleaf and grass weeds including Crabgrass, Foxtail*, Wiregrass, Flora's paintbrush, Spanishneedles, and Fireweed, apply 4.0 to 8.0 pints per acre before harvest. Repeat as necessary.

Use Restrictions:

- Do not apply when Nuts are on the ground during harvest period.
- Do not apply by air.
- Do not apply more than 4.0 pounds active ingredient per acre for any application.
- Do not apply more than 8.0 pounds active ingredient per year.

GUAVA

For the control of many annual broadleaf and grass weeds, including Fireweed, Purslane, 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 4.0 to 8.0 pints per acre in 20.0 to 50.0 gallons of spray mix. When applying postemergence, the use of a surfactant and greater spray volume (80.0 to 100 gallons of spray mix per acre) may enhance weed control.

Use Restrictions:

- Do not allow spray to come into contact with foliage or fruit.
- Do not apply more frequently than at 4 month intervals.
- Do not apply more than 4.0 pounds active ingredient per acre for any application.
- Do not apply more than 8.0 pounds active ingredient per year.

TURF GRASSES FOR SOD

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, Nightshade*, Purslane and Mustard.

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

Apply at the rates indicated in the table below:

Soil Texture	Broadcast Rate/Acre	Application Timing
Muck or Peat	8.0 pt	Old Beds: Within 2 days after lifting sod. New Beds: 3 to 4 days after sprigging or plugging.
Sandy soil	4.0 pt	Old Beds: Within 2 days after lifting sod. New Beds: 7 to 10 days after sprigging or plugging.

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If weeds regrow, apply an additional 4.0 pints per acre on muck or peat, or 2.0 pints per acre on sandy soil.

Use Restrictions:

- For muck or peat soils do not apply more than 4.0 pounds active ingredient per acre for any application, and do not apply more than 6.0 pounds active ingredient per year.
- For sandy soils do not apply more than 2.0 pounds active ingredient per acre for any application, and do not apply more than 3.0 pounds active ingredient per year.
- Do not apply within 30 days before cutting or lifting.
- In Florida do not apply in combination with surfactants or other spray additives.

Use Precautions:

- Use only on Turfgrass that is reasonably free of insect, nematode, and disease infestations.
- On newly sprigged Turfgrass, temporary slowing of growth may follow application.

TURFGRASS at Residential sites (including homes, daycare facilities, schools, playgrounds, parks, recreational areas, and sports fields.)

BERMUDAGRASS, CENTIPEDEGRASS, ST. AUGUSTINEGRASS, AND ZOYSIA GRASS

To control Annual bluegrass*, Burclover, Carpet burweed, Chickweed, Corn speedwell, Henbit, Hop clover, and Spurweed, make application after October 1, prior to emergence of winter annual weeds. Annual bluegrass will be controlled even if it is emerged at time of treatment. To control summer annual weeds such as Barnyardgrass*, Witchgrass* (*Panicum capillare*), Yellow foxtail*, Green foxtail*, Wild oats, Large (Hairy) crabgrass, Velvetleaf*, Morningglory, Lambsquarters*, Ragweed, Nightshade, Purslane and Mustard, apply Atrazine 4L in late winter before the weeds emerge. Apply in a minimum of 15.0 gallons of water per acre or 1.0 gallon per 1000 square feet.

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

In areas where the major weed is Annual bluegrass, apply 2.0 pints per acre (0.75 fluid ounces per 1000 square feet). To control the other weeds listed above, apply 4.0 pints per acre (1.5 fluid ounces per 1000 square feet). Do not apply more than 2.0 pints per treatment on newly sprigged Turfgrass or on hybrid Bermudagrass such as Tiflawn, Tifway, and Ormond.

For continued summer annual weed control, apply another 2.0 pints 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.

Use Restrictions:

- Do not apply more than 1.0 pound active ingredient per acre for any application, and do not apply more than 2.0 pounds active ingredient per acre per year.
- Do not use on golf greens.
- 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.
- Do not use on muck or alkaline soils.
- Do not apply over the rooting area of trees or ornamentals not listed on this label.
- Do not graze or feed turf clippings to animals.

Use Precautions: On newly sprigged Turfgrass and Hybrid bermudagrass, temporary slowing of growth and yellowing may occur following application. To avoid turf injury,

- Use only on Turfgrass that is reasonably free of insect, nematode, and disease infestations.
- Do not overseed with desirable Turfgrass within 4 months before or 6 months after treatment.

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 2.0 pints per acre in a minimum of 10.0 gallons of water by ground equipment. Apply in the fall 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.

Use Restrictions:

- Do not graze treated areas.
- Do not cut or feed roadside grass for Hay.
- Do not apply more than 1.0 pound active ingredient per acre for any application.
- Do not apply more than one application per year.

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, Loblolly pine, Lodgepole pine (Shore pine), Monterey pine, Ponderosa pine, Scotch pine, Slash pine, Blue spruce, and Sitka spruce.

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Broadcast 4.0 to 8.0 pints in a minimum of 5.0 gallons of water per acre by air or 10.0 gallons 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 1.5 inches tall. 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 8.0 pints in a minimum of 5.0 gallons of water per acre by air or 10.0 gallons by ground in fall or early spring while trees are dormant and before Quackgrass is more than 1.5 inches tall.

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

Use Restrictions:

- Do not apply more than 4.0 pounds active ingredient per acre for any application.
- Do not apply more than 4.0 pounds active ingredient per year.
- 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.
- To prevent illegal residues, do not graze treated areas of the Great Basin, or areas east of the Rocky Mountains.
- Apply only once per year.

Use Precautions:

- Temporary injury to trees may occur following use on coarse-textured soil.
- To avoid crop injury, do not apply to seedbeds.

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 10.0 feet 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 feet 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.

STORAGE AND DISPOSAL

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

PESTICIDE STORAGE: Do not store under conditions which might adversely affect the container or its ability to function properly. 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 HANDLING:

Nonrefillable container. Do not reuse this container to hold materials other than pesticides or dilute pesticides (rinsate). After emptying and cleaning, it may be allowable to temporarily hold rinsate or other pesticide-related materials in the container. Contact your state regulatory agency to determine allowable practices in your state. Once cleaned, some agricultural plastic pesticide containers can be taken to a container collection site or picked up for recycling. To find the nearest site, contact your chemical dealer or manufacturer, or contact The Agricultural Container Recycling Council (ACRC) at www.acrecycle.org. If not recycled, then 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.

Triple rinse or pressure rinse container (or equivalent) promptly after emptying.

For packages up to 5 gallons: Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. **Pressure rinse as follows:** Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

For packages greater than 5 gallons or 50 lbs: Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal.

Repeat this procedure two more times. **Pressure rinse as follows:** Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

For square bottom caged totes greater than 55 gals.: Triple rinse or pressure rinse as follows: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Fill the container about 1/4 full

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Storage & Disposal cont'd.:

with water, rinsing down all sides inside the container thoroughly. Recirculate water with the pump for 2 minutes. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times.

For refillable containers: Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times.

For help with any spill, leak, fire or exposure involving this material, call day or night CHEMTREC – 1-800-424-9300.

CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY

BEFORE BUYING OR USING THIS PRODUCT, read the entire Directions for Use and the following Conditions of Sale and Limitation of Warranty and Liability. By buying or using this product, the buyer or user accepts the following Conditions of Sale and Limitation of Warranty and Liability, which no employee or agent of LOVELAND PRODUCTS, INC. or the seller is authorized to vary in any way.

Follow the Directions for Use of this product carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Crop or other plant injury, ineffectiveness, or other unintended consequences may result from such risks as weather or crop conditions, mixture with other chemicals not specifically identified in this product's label, or use of this product contrary to the label instructions, all of which are beyond the control of LOVELAND PRODUCTS, INC. and the seller. The buyer or user of this product assumes all such inherent risks.

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