



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY
AND POLLUTION PREVENTION

November 10, 2021

Mary Beth Endres
Regulatory Manager
Liberty Crop Protection, LLC
1880 Fall River Drive, Suite 100
Loveland, CO 80538

Subject: Registration Review Label Amendments for Atrazine Incorporating Mitigation Measures from the Interim Decision and the Technical Registrants' Commitments for the Endangered Species Act (ESA) Biological Evaluation
Product Name: LIBERTY ATRAZINE 90 HERBICIDE
EPA Registration Number: 89168-32
Application Date: 12/16/2020
Decision Number: 579491

Dear Ms. Endres:

The Agency, in accordance with the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), as amended, has completed reviewing all the information submitted with your application to support the Registration Review of the above referenced product in connection with the Atrazine Interim Decision and with the technical registrants' commitments for the ESA Biological Evaluation. The Agency has concluded that your submission is acceptable. The label referred to above, submitted in connection with registration under FIFRA, as amended, is acceptable.

Should you wish to add/retain a reference to the company's website on your label, then please be aware that the website becomes labeling under the Federal Insecticide Fungicide and Rodenticide Act and is subject to review by the Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 CFR 156.10(a)(5) list examples of statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product's label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the Agency find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA approved registration, the website will be referred to the EPA's Office of Enforcement and Compliance.

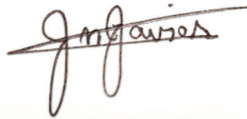
A stamped copy of your labeling is enclosed for your records. This labeling supersedes all previously accepted labeling. You must submit one copy of the final printed labeling before you release the product for shipment with the new labeling. In accordance with 40 CFR 152.130(c), you may distribute or sell this product under the previously approved labeling for 18 months from the date of this letter. After 18 months, you may only

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distribute or sell this product if it bears this new revised labeling or subsequently approved labeling. "To distribute or sell" is defined under FIFRA section 2(gg) and its implementing regulation at 40 CFR 152.3.

If you have any questions about this letter, please contact Samantha Thomas at thomas.samantha@epa.gov.

Sincerely,

A handwritten signature in black ink, appearing to read "Julie Javier", is written over a horizontal line. The signature is stylized and cursive.

Julie Javier, Team Leader
Risk Management and Implementation Branch 4
Pesticide Re-Evaluation Division
Office of Pesticide Programs

Enclosure

**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.

ATRAZINE | GROUP 5 | HERBICIDE

**LIBERTY ATRAZINE 90
HERBICIDE**

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

ACTIVE INGREDIENT:	%BY WT.
Atrazine (2-chloro-4-ethylamino-6-isopropylamino-s-triazine)	87.72%
Related compounds	2.28%
OTHER INGREDIENTS:	<u>10.00%</u>
TOTAL:	100.00%

Atrazine 90 is a Dry Flowable

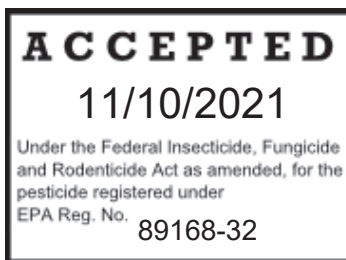
**KEEP OUT OF REACH OF CHILDREN
CAUTION / PRECAUCIÓN**

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle.
(If you do not understand the label, find someone to explain it to you in detail.)

For Chemical Spill, Leak, Fire, or Exposure, Call CHEMTREC (800) 424-9300.

[SEE INSIDE BOOKLET FOR ADDITIONAL PRECAUTIONARY STATEMENTS.]

[See inside booklet for additional Precautionary Statements and Directions for Use.]



EPA Reg. No. 89168-32

EPA Est. No. _____

NET CONTENTS: _____ LBS. (_____ Kg)

Manufactured for:

Liberty Crop Protection, LLC
1880 Fall River Drive, Suite 100
Loveland, CO 80538

110321

FIRST AID	
IF SWALLOWED:	<ul style="list-style-type: none"> • 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 or convulsing person.
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.
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 mouth-to-mouth, if possible. • Call a poison control center or doctor for treatment advice.
<p>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.</p>	
HOTLINE NUMBER	
<p>Have the product container or label with you when calling a poison control center or doctor, or going for treatment. For emergency information concerning this product, call the National Pesticides Information Center (NPIC) at 1-800-858-7378 or your poison control center at 1-800-222-1222. For Chemical Spill, Leak, Fire or Exposure, call CHEMTREC 800-424-9300.</p>	

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

Harmful if swallowed or absorbed through skin. Causes moderate eye irritation. Avoid contact with skin, eyes, or clothing.

PERSONAL PROTECTIVE EQUIPMENT

Mixers, loaders, cleaners of equipment or spills, and other handlers exposed to the concentrate must wear:

- Coveralls over long sleeved shirt and long pants,
- Chemical-resistant gloves made of barrier laminate, nitrile rubber ≥ 14 mils, neoprene rubber ≥ 14 mils or viton ≥ 14 mils,
- Chemical-resistant footwear plus socks,
- Chemical-resistant apron,
- A NIOSH-approved particulate filtering facepiece respirator with any N, R or P filter; OR a NIOSH-approved elastomeric particulate respirator with any N, R or P filter; OR a NIOSH-approved powered air purifying respirator with HE filters.

Applicators using spray equipment mounted on their backs must wear:

- Coveralls over long-sleeved shirt and long pants,
- Chemical-resistant gloves made of barrier laminate, nitrile rubber ≥ 14 mils, neoprene rubber ≥ 14 mils or viton ≥ 14 mils,
- Chemical-resistant footwear plus socks.

All other applicators and all other handlers exposed to the dilute must wear:

- Long-sleeved shirt and long pants,
- Shoes plus socks, and
- Chemical-resistant gloves made of barrier laminate, nitrile rubber ≥ 14 mils, neoprene rubber ≥ 14 mils or viton ≥ 14 mils.

Aerial application is prohibited.
See engineering controls for additional requirements.

User Safety 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

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 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.

Non-Target Organism Advisory

This product is toxic to plants and may adversely impact the forage and habitat of non-target organisms, including pollinators, in areas adjacent to the treated site. Protect the forage and habitat of non-target organisms by following label directions intended to minimize spray drift.

MIXING/LOADING INSTRUCTIONS

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 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:

1. **DO NOT** apply this product within 66 feet of standpipes in tile-outletted terraced fields.
2. 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.
3. 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.

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

PHYSICAL OR CHEMICAL HAZARDS

DO NOT use or allow coming into contact with oxidizing agents, hazardous chemical reactions may occur.

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], 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 LIBERTY for a refund.

Aerial application of this product is prohibited.

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, 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, shoes plus socks, and chemical-resistant gloves made of 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, and 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.

PRODUCT 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.

Endangered Species

It is a Federal offense to use any pesticide in a manner that results in an unauthorized “take” (e.g., kill or otherwise harm) of an endangered species under the Endangered Species Act section 9. When using this product, you must follow the measures contained in the Endangered Species Protection Bulletin for the area in which you are applying the product. You must obtain a Bulletin no earlier than six months before using this product. To obtain Bulletins, consult

<http://www.epa.gov/espp/>, call 1-844-447-3813, or email ESPP@epa.gov. You must use the Bulletin valid for the month in which you will apply the product.

Where the use directions gives 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: LIBERTY does not recommend applications in combination with other herbicides or oils, except as specifically described on the label.

Precautions

- 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 noncorrosive to equipment and metal surfaces, nonflammable, and has low electrical conductivity.
- Avoid using near adjacent desirable plants or in greenhouses, or injury may occur.

Restrictions

- **DO NOT** apply this product through any type of irrigation system.
- 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 active ingredient of atrazine per acre for any single application, and the total pounds of atrazine applied (lb 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 (lb ai per acre) must not exceed the specific seasonal rate limits as noted in the use directions.
- **DO NOT** apply atrazine and propazine products to the same sorghum acre.
- Not for use in the states of Hawaii or Alaska, or in the U.S. territories (Puerto Rico, Guam, American Samoa, the U.S. Virgin Islands, and the North Mariana Islands).
- Use on roadside, Conservation Reserve Program (CRP) land, conifers, including Christmas Tree plantings, timber, forestry; and, Miscanthus and other perennial bioenergy crops is prohibited.
- Users must only apply to fallow land in the following states according to the prescribed rotation pattern in the table below:

Fallow Rotation Pattern	Fallow Use Authorized in these States only
Wheat-Corn-Fallow	CO, KS, ND, NE, SD & WY
Wheat-Fallow-Wheat	CO, KS, ND, NE, SD & WY
Wheat-Sorghum Fallow	AR, CO, GA, IL, KS, LA, MS, MO, NE, NM, NC, OK, SD & TX

RESISTANCE MANAGEMENT

For resistance management, this product is a Group 5 herbicide. Any weed population may contain or develop plants naturally resistant to this product and other Group 5 herbicides. The resistant biotypes may dominate the weed population if these herbicides are used repeatedly in the same field. Appropriate resistance-management strategies should be followed.

Weed Management

To delay herbicide resistance, take one or more of the following steps:

- Rotate the use of this product or other Group 5 herbicides within a growing season sequence or among growing seasons with different herbicide groups that control the same weeds in the field.
- Use tank mixtures with herbicides from a different group if such use is permitted; where information on resistance in target weed species is available, use the less resistance-prone partner at a rate that will control the target weed(s) equally as well as the more resistance-prone partner. Consult your local extension service or certified crop advisor if you are unsure as to which active ingredient is currently less prone to resistance.
- Adopt an integrated weed-management program for herbicide use that includes scouting and uses historical information related to herbicide use and crop rotation, and that considers tillage (or other mechanical control methods), cultural (e.g., higher crop seeding rates; precision fertilizer application method and timing to favor the crop and not the weeds), biological (weed-competitive crops or varieties) and other management practices.
- Scout before and after herbicide application to monitor weed populations for early signs of resistance development. Indicators of possible herbicide resistance include: (1) failure to control a weed species normally controlled by the herbicide at the dose applied, especially if control is achieved on adjacent weeds; (2) a spreading patch of non-controlled plants of a particular weed species; (3) surviving plants mixed with controlled individuals of the same species. If resistance is suspected, prevent weed seed production in the affected area by an alternative herbicide from a different group or by a mechanical method such as hoeing or tillage. Prevent movement of resistant weed seeds to other fields by cleaning harvesting and tillage equipment when moving between fields, and planting clean seed.
- If a weed pest population continues to progress after treatment with this product, discontinue use of this product, and switch to another management strategy or herbicide with a different mode of action, if available.
- Contact your local extension specialist or certified crop advisors for additional pesticide resistance-management and/or integrated weed-management recommendations for specific crops and weed biotypes.
- For further information or to report suspected resistance, contact LIBERTY CROP PROTECTION, LLC at 844-425-8488.

Management of Resistant Biotypes

Since the occurrence of resistant weeds cannot be determined until after product use and scientific confirmation, manufacturer is not responsible for any losses that may result from the failure of this product to control resistant weed biotypes.

The following good agronomic practices are recommended to reduce the spread of resistant biotypes:

- If a naturally occurring resistant biotype is present in your application site, this product should be tank- mixed or applied sequentially with an appropriately labeled herbicide with a different mode of action to achieve control.
- Cultural and mechanical control practices (e.g. crop rotation or tillage) may also be used as appropriate.
- Scout treated application site after herbicide applications and control escaping weeds including resistant biotypes before they set seed.
- Thoroughly clean equipment before leaving fields known to contain resistant biotypes.
- Contact your local sales representative, crop advisor, or extension agent to find out if suspected resistant weeds to these Mode of Actions have been found in your region. Do not assume that each listed weed is being controlled by multiple mechanisms of action. Co-formulated active ingredients are intended to broaden the spectrum of weeds that are controlled. Some weeds may be controlled by only one of the active ingredients in this product.

Integrated Pest (Weed) Management

This product may be integrated into an overall weed pest management strategy whenever the use of an herbicide is required. Practices known to reduce weed development (tillage, crop competition) and herbicide use (weed scouting, proper application timing, banding) should be followed wherever possible. Consult local agricultural and weed authorities for additional IPM strategies established for your area.

MANDATORY SPRAY DRIFT MANAGEMENT

Aerial Applications:

- **DO NOT** release spray at a height greater than 10 feet above the ground or vegetative canopy, unless a greater application height is necessary for pilot safety.
- Applicators are required to use a coarse or coarser droplet size (ASABE S572).
- User must maintain a 150 foot (46 meter) in-field downwind buffer (in the direction in which the wind is blowing) from the following areas edge of streams and rivers, as well as high-tide line for all estuarine/marine environments
- If the wind speed is 10 miles per hour or less, applicators must use 1/2 swath displacement upwind at the downwind edge of the field. When the wind speed is between 11-15 miles per hour, applicators must use 3/4 swath displacement upwind at the downwind edge of the field.
- **DO NOT** apply when wind speeds exceed 15 mph at the application site. If the wind speed is greater than 10 mph, the boom length must be 65% or less of the wingspan for fixed wing aircraft and 75% or less of the rotor diameter for helicopters. Otherwise, the boom length must be 75% or less of the wingspan for fixed-wing aircraft and 90% or less of the rotor diameter for helicopters.
- **DO NOT** apply during temperature inversions.

Ground Boom Applications:

- User must only apply with the release height recommended by manufacturer, but no more than 4 feet above the ground or crop canopy.
- Applicators are required to use a coarse or coarser droplet size (ASABE S572).
- **DO NOT** apply when wind speeds exceed 10 miles per hour at the application site.
- User must maintain a 15 foot (4.6 meter) in-field downwind buffer (in the direction in which the wind is blowing from the edge of streams and rivers, as well as high-tide line for all estuarine/marine environments.

Boomless Ground Applications:

- Applicators are required to use a coarse or coarser droplet size (ASABE S572) for all applications.
- **DO NOT** apply when wind speeds exceed 10 miles per hour at the application site.
- User must maintain a 15 foot (4.6 meter) in-field downwind buffer (in the direction in which the wind is blowing from the edge of streams and rivers, as well as high-tide line for all estuarine/marine environments.
- **DO NOT** apply during temperature inversions.

SPRAY DRIFT ADVISORIES

THE APPLICATOR IS RESPONSIBLE FOR AVOIDING OFF-SITE SPRAY DRIFT. BE AWARE OF NEARBY NON-TARGET SITES AND ENVIRONMENTAL CONDITIONS.

IMPORTANCE OF DROPLET SIZE

An effective way to reduce spray drift is to apply large droplets. Use the largest droplets that provide target pest control. While applying larger droplets will reduce spray drift, the potential for

drift will be greater if applications are made improperly or under unfavorable environmental conditions.

Controlling Droplet Size – Ground Boom

- **Volume** - Increasing the spray volume so that larger droplets are produced will reduce spray drift. Use the highest practical spray volume for the application. If a greater spray volume is needed, consider using a nozzle with a higher flow rate.
- **Pressure** - Use the lowest spray pressure recommended for the nozzle to produce the target spray volume and droplet size.
- **Spray Nozzle** - Use a spray nozzle that is designed for the intended application. Consider using nozzles designed to reduce drift.

Controlling Droplet Size – Aircraft

- **Adjust Nozzles** - Follow nozzle manufacturers' recommendations for setting up nozzles. Generally, to reduce fine droplets, nozzles should be oriented parallel with the airflow in flight.

Boomless Ground Applications:

Setting nozzles at the lowest effective height will help to reduce the potential for spray drift.

Handheld Technology Applications

Take precautions to minimize spray drift.

BOOM HEIGHT – Ground Boom

For ground equipment, the boom should remain level with the crop and have minimal bounce.

RELEASE HEIGHT – Aircraft

Higher release heights increase the potential for spray drift.

SHIELDED SPRAYERS

Shielding the boom or individual nozzles can reduce spray drift. Consider using shielded sprayers. Verify that the shields are not interfering with the uniform deposition of the spray on the target area.

TEMPERATURE AND HUMIDITY

When making applications in hot and dry conditions, use larger droplets to reduce effects of evaporation.

TEMPERATURE INVERSIONS

Drift potential is high during a temperature inversion. Temperature inversions are characterized by increasing temperature with altitude and are common on nights with limited cloud cover and light to no wind. The presence of an inversion can be indicated by ground fog or 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.

WIND

Drift potential generally increases with wind speed. AVOID APPLICATIONS DURING GUSTY WINDCONDITIONS.

Applicators need to be familiar with local wind patterns and terrain that could affect spray drift.

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 capacity to (1) maintain 35 to 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 gallons per minute per 100 gallons 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 manufacturers recommendations.

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

$$\frac{\text{Band width in inches}}{\text{Row width in inches}} \times \text{Broadcast rate per acre} = \text{Amount needed per acre field}$$

APPLICATION IN WATER OR LIQUID FERTILIZER: Nitrogen solution or complete fluid 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 fluid 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.

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 gallons per acre. For other spray volumes, make appropriate changes in the amounts of 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 or 1.2 milliliters) of a compatibility agent approved for this use, (1/4 teaspoon in one quart of compatibility test mixture is equivalent to approximately 2 pints per 100 gallons spray). Shake or stir gently to mix.
3. To **both** jars add the appropriate amount of herbicide(s). If more than one herbicide is used, add them separately with dry herbicides first, flowables next, and emulsifiable concentrates last. After each addition, shake or stir gently to thoroughly mix. The appropriate amount of herbicides for this test follows:

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

Liquid herbicides: For each pint to be applied per acre, add 0.5 teaspoons or 2.5 milliliters 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 herbicide(s) in water before addition, or (B) add 1/2 of the compatibility agent to the fertilizer and the other 1/2 to the emulsifiable concentrate or flowable herbicide before addition to the mixture. If non-compatibility is still observed, **DO NOT** use the mixture.

Application in water plus emulsifiable oil or oil concentrate: Adding emulsifiable oil (petroleum-derived, petroleum-derived oil concentrate, 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, observe the following directions:

Use on of the following properly emulsified:

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

Note: In the event of a compatibility problem when mixing oil with ATRAZINE 90 and water, a compatibility agent 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 clean water, nitrogen solution, or complete liquid fertilizer. (3) Start agitation. (4) Be certain that the agitation system is working properly and creates a rippling or rolling action on the liquid surface; (5) Pour product directly from bag into tank. (6) Continue filling tank until 90% full. Increase agitation if necessary to maintain surface action. (7) Add emulsifiable oil, oil concentrate, or tank mix herbicide(s) after this product is thoroughly suspended. (8) Finish filling tank. (9) Empty tank as completely as possible before refilling to prevent buildup of oil or emulsifiable concentrate residue. Maintain agitation to avoid separation of materials. (10) If an oil or emulsifiable concentrate film starts to build up in tank, drain it and clean with strong detergent solution or solvent. (11) Clean sprayer thoroughly immediately after use by flushing system with water containing a detergent.

Within rate ranges in all tables on this label, use the lower rate on soil relatively course-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 2.2 pounds (2.0 lb ai) of this product per acre 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 90 APPLIED ALONE - CORN OR GRAIN SORGHUM*

Preplant Surface-Applied, Preplant Incorporated, or Preemergence (or Postemergence at 2.2 pounds (2.0 lb ai) per acre of Atrazine 90 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	lambsquarters	sicklepod**
witchgrass (<i>Panicum capillare</i>)***	annual morningglory	velvetleaf (buttonweed)***
yellow foxtail***	mustards	

Postemergence with Emulsifiable Oil or Oil Concentrate in Water (at 1.3 pounds (1.2 lb ai) per acre of Atrazine 90) Broadleaf Weeds Controlled

annual morning glory	lambsquarters	ragweed
cocklebur	mustards	smartweed
jimsonweed	pigweed	wild buckwheat
		velvetleaf**

*Where there are state/local requirements regarding atrazine use (including lower mLIBERTYimum rates and/or higher 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 specified rate of ATRAZINE 90 shown in Table 1 up to 30 days prior to planting. On **coarse-textured soils**, **DO NOT** apply more than two weeks prior to planting. If 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 rates specified in Table 1.

TABLE 1: Broadleaf and Grass Weed Control in Corn*

<p>FOR ALL SOIL APPLICATIONS PRIOR TO CROP EMERGENCE maximum broadcast application rates for corn must be as follows:</p> <ul style="list-style-type: none"> • ON HIGHLY ERODIBLE SOILS: If conservation tillage is practiced, leaving at least 30% of the soil covered with plant residues at planting, apply a maximum of 2.2 pounds (2.0 lb ai) per acre of this product as a single preemergence application. If the soil coverage with plant residue is less than 30% at planting, apply a maximum of 1.77 pounds (1.6 lb ai) of this product per acre as a single preemergence application; or 2.2 pounds (2.0 lb ai) per acre of this product if only applied postemergence. • ON SOILS NOT HIGHLY ERODIBLE: Apply a maximum of 2.2 pounds (2.0 lb ai) per acre of this product as a single preemergence application. <p>FOR POSTEMERGENCE APPLICATION If no atrazine was applied prior to corn emergence, apply 2.2 pounds (2.0 lb ai) of this product per acre broadcast. If a postemergence treatment is required following an earlier herbicide application, the total atrazine applied may not exceed 2.77 pounds (2.5 lb ai) of this product per acre per year.</p>
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***Broadleaf control (eastern CO, western KS, western NE, NM, OK Pan Handle, west Texas, and eastern WY):** On sand, loamy sand, sandy loam, mild to strongly alkaline soil, and all recently leveled soil, apply no more than 1.3 pounds (1.2 lb ai) per acre of product, 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 higher set-backs) which are different from the label, the more restrictive/protective requirements must be followed. Certain states may have established rate limitation 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 ground application unless the oil label specifies otherwise:

<u>Type Oil</u>	<u>Ground Application</u>
Oil Concentrate (Crop or Petroleum-derived)	1 qt./A
Petroleum-Derived oil	1 gal./A

NOTE: Crop-derived or petroleum-derived oil concentrates should contain at least 1%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 2.2 pounds (2.0 lb ai) per acre of product 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 1.3 pounds (1.2 lb ai) per acre of product 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.

USE RESTRICTIONS FOR APPLICATIONS WITH EMULSIFIABLE OIL OR OIL CONCENTRATE IN WATER: (1) **DO NOT** exceed 2.77 pounds (2.5 lb ai) of this product per acre per year. (2) Postemergence applications to corn must be made before crop reaches 12 inches in height.

USE 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.

TANK MIXTURES FOR CORN

This product may be tank mixed with products containing the following herbicides for control of certain broadleaf and grass weeds in corn.

Alachlor	Metolachlor/S-metolachlor + simazine + glyphosate
Alachlor + glyphosate	Metolachlor/S-metolachlor + simazine + paraquat
Alachlor + paraquat	Paraquat
Glyphosate	Propachlor
Metolachlor/S-metolachlor	Simazine
Metolachlor/S-metolachlor + glyphosate	Simazine + glyphosate
Metolachlor/S-metolachlor + paraquat	Simazine + paraquat
Metolachlor/S-metolachlor + simazine	

It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

SIMAZINE: In addition to the weeds listed under **ATRAZINE 90 APPLIED ALONE - CORN AND 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 specified rate of ATRAZINE 90 and simazine shown in Table 2 up to 45 days prior to planting. Refer to the **ATRAZINE 90 Alone** section for information if weeds should develop following early treatment. On **coarse-textured** soils, **DO NOT** apply more than two weeks prior to planting. Refer to the **Atrazine 90 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	Simazine	This Product	Simazine
Sand, loamy sand, sandy loam	0.83 lbs. (0.75 lb ai)	Refer to product label for use rates.	0.56 lbs. (0.5 lb ai)	Refer to product label for use rates.
Loam, silt loam, silty clay loam, sandy clay loam, silty clay loam, sandy clay, or silty clay with low organic matter	0.97 lbs. (0.87 lb ai)		0.65 lbs. (0.6 lb ai)	
Loam, silt loam, silt, clay loam, sandy clay loam, silty clay loam, sandy clay, or silty clay with medium to high organic matter, and clay (including dark prairie soils of the corn belt)	1.1 lbs. (1.0 lb ai)		0.74 lbs. (0.7 lb ai)	
* For control of most weeds.				
** For control of expected heavy infestations of crabgrass and fall panicum.				

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. Continue agitation during application. Broadcast 1.1 to 2.2 pounds (1.0 to 2.0 lb ai) of this product plus labeled rates of simazine and paraquat in 20 to 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, per 100 gallons of spray mixture. Use the higher rate of paraquat specified on the label if existing vegetation is 4 to 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.

USE RESTRICTIONS FOR ALL APPLICATIONS TO CORN: (1) To avoid illegal residues, **DO NOT** apply more than 2.77 pounds (2.5 lb ai) per acre of this product per year. (2) **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. (3) Application via mechanically pressurized handguns in sweet corn is prohibited.

USE PRECAUTIONS FOR ALL APPLICATIONS TO CORN: (1) To avoid crop injury **DO NOT** apply more than 2.77 pounds (2.5 lb ai) per acre of this product per year. (2) For best control of velvetleaf and cocklebur, the application rate cannot be less than 2.2 pounds (2.2 lb ai) per acre 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.

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 specified rate of ATRAZINE 90 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 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 shown 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 prior to planting.

PREEMERGENCE OR 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^{1,2}

FOR ALL SOIL APPLICATIONS PRIOR TO CROP EMERGENCE maximum broadcast application rates for corn must be as follows:

- **ON HIGHLY ERODIBLE SOILS:** If conservation tillage is practiced, leaving at least 30% of the soil covered with plant residues at planting, apply a maximum of 2.2 pounds (2.0 lb ai) per acre as a single preemergence application.

If the soil coverage with plant residue is less than 30% at planting, apply a maximum of 1.77 (1.6 lb ai) pounds of this product per acre as a single preemergence application; or 2.2 pounds (2.0 lb ai) of this product per acre if only applied postemergence.

- **ON SOILS NOT HIGHLY ERODIBLE:** Apply a maximum of 2.2 pounds (2.0 lb ai) of per acre of this product as a preemergence application.

FOR ALL POSTEMERGENCE APPLICATION:

If no Atrazine was applied prior to sorghum emergence, apply a maximum of 2.2 pounds (2.0 lb ai) of this product per acre broadcast. If a postemergence treatment is required following an earlier herbicide application, the total Atrazine applied may not exceed 2-2.5 lb ai (2.77 pounds of this product) per acre per year.

¹ **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 and the TX Gulf Coast and the Blacklands areas.

² 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 2.77 pounds (2.5 lb ai) of this product per acre per 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 1.3 (1.2 lb ai) pounds per acre of this product 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 to 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 gallon of emulsifiable oil per acre for ground application or add 1 quart 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 90 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 USE PRECAUTIONS AND USE RESTRICTIONS 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): Broadcast 1.3 (1.2 lb ai) pounds per acre of this product plus 0 to 75 to 1.5 pints 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 RESTRICTIONS FOR ALL APPLICATIONS TO SORGHUM: (1) **DO NOT** apply more than 2.77 pounds (2.5 lb ai) of this product per acre per year. (2) **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.

USE PRECAUTIONS 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) 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. (6) For postemergence applications, **DO NOT** apply to sand or loamy sand, or injury may occur.

TANK MIXTURES FOR GRAIN SORGHUM

It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

Metolachlor/S-metolachlor: Use as tank mixture with metolachlor for control of those weeds listed on the metolachlor/S-metolachlor label, as well as on this label. Use this tank mixture only on sorghum seed treated with Concep®. Refer to the metolachlor product 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 0.9 to 1.1 (0.8 to 1.0 lb ai) pounds per acre of this product postemergence to the weeds in November or December to land that will be planted to corn, grain sorghum, or forage sorghum the following spring. For best results, add a suitable surfactant, at the rate of 0.5% of the spray volume, an emulsifiable oil at the rate of 1.0% of the spray volume, or an oil concentrate at the rate of 1 quart per acre.

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

USE RESTRICTION: DO NOT plant any crops except corn, grain sorghum, or forage sorghum the spring following this treatment, or illegal residues may result.

ATRAZINE 90 ALONE - CHEMICAL FALLOW

Wheat-Sorghum-Fallow (AR, CO, GA, IL, KS, LA, MS, MO, NE, NM, NC, OK, SD and TX): To control annual broadleaf and grass weeds following wheat harvest and in the following sorghum crop when grown under minimum tillage, broadcast 2.5 pounds (2.25 lb ai) per acre of product 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 90. 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 90 APPLIED ALONE - CORN OR GRAIN SORGHUM - Preplant Surface-Applied, Preplant Incorporated or Preemergence.**

USE RESTRICTIONS: (1) Wheat-sorghum-fallow cropping sequences must be followed. (2) **DO NOT** apply following sorghum harvest. (3) To avoid illegal residues, **DO NOT** graze or feed forage from treated area to livestock. (4) To avoid illegal residues, **DO NOT** plant any crop other than those on this label within 18 months following treatment.

USE PRECAUTIONS: (1) Use only on silt loam or finer-textured soil, or crop injury may result. (2) To avoid 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 1.6 pounds (1.5 lb ai) of this product per acre per application. *For soils in ND and SD with a pH of less than 7.5: DO NOT* apply more than 1.1 to 2.2 pounds (1.0 to 2.0 lb ai) of this product per acre per application. Use the higher rate on finer-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 2.5 pounds (2.2 lb ai) per acre of this product per application.

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

Restriction - Wheat-Corn-Fallow (CO, KS, ND, NE, SD, and WY)

- **DO NOT** make more than 1 application per year.

Wheat-Fallow-Wheat (CO, KS, ND, NE, 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 0.5 to 1.1 pounds (0.45 to 1.0 lb ai) per acre 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 2.5 pounds (2.25 lb ai) of ATRAZINE 90 labeled amount of paraquat in 20 to 60 gallons of water per acre by ground equipment. Refer to the paraquat label for the appropriate rates to utilize in this tank mixture. Add 0.5 to 1 pint of a nonionic surfactant, per 100 gallons of spray mixture. Add ATRAZINE 90 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 to 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, NE, ND, SD, and WY)

Paraquat: If weeds are present at application, a tank mix with paraquat may be used. Broadcast 0.5 to 1.1 pounds (0.45 to 1.0 lb ai) of ATRAZINE 90 plus labeled amount of paraquat in 20 to 60 gallons of water per acre by ground equipment. Add 0.5 to 1 pint of a nonionic surfactant, per 100 gallons of spray mixture. Add ATRAZINE 90 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 to 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 RESTRICTIONS: (1) **DO NOT** treat soils of the Rosebud and Canyon Series in Western NE and adjoining counties in CO and WY. (2) **DO NOT** graze treated areas within 6 months after application, or illegal residues may result.

USE PRECAUTIONS: 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 with calcareous surface layers or soils with a pH greater than 7.5. (4) Avoid spray overlap.

SUGARCANE

Use Directions for All States

For control of many broadleaf and grass weeds, including amaranths, crab grass, fireweed, Flora's paintbrush, foxtails, junglerice and wiregrass, broadcast 2.2 to 4.4 pounds (2.0 to 4.0 lb ai) per acre of ATRAZINE 90 at time of planting or ratooning, but before sugarcane emerges. Broadcast or band by ground equipment in a minimum of 20 gallons 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 90 are used alone, apply in a minimum of 1 gallon of water for each 1 pound of product applied per acre.

USE RESTRICTIONS (for all states and uses): (1) **DO NOT** apply after close-in. (2) **DO NOT** apply more than 4.4 pounds (4.0 lb ai) of this product per acre for any application. (3) **DO NOT** apply more than 11.1 pounds (10.0 lb ai) of this product per crop.

USE PRECAUTIONS (for all states and uses): (1) Injury to sugarcane may occur when under moisture stress, when soil is of low adsorptive capacity, or when land is first cropped to sugarcane.

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 **Use Directions for All States** and are consistent with the **USE PRECAUTIONS AND RESTRICTIONS (for all states and uses)**.

FLORIDA

For control of emerged pellitory weed: Apply 0.4 to 0.6 pounds (0.36 to 0.54 lb ai) per acre of product in at least 40 gallons of water as a directed spray by ground equipment prior to close-in. Add 4 quarts of surfactant for each 100 gallons of spray. Thoroughly cover weed foliage.

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

1. Apply 4.4 pounds (4.0 lb ai) per acre of product preemergence. Follow with one or two applications, as needed, postemergence to sugarcane and weeds, at 2.2 pounds (2.0 lb ai) per acre of product. Treat before weeds exceed 1.5 inches in height.
2. Apply 1 to 3 times, as needed, at 2.2 pounds (2.0 lb ai) per acre of product 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 2.2 pounds (2.0 lb ai) per acre of product to weed-free beds immediately after bed formation. Follow normal weed control after planting.

Additional Use Restrictions in LA: To avoid crop injury, (1) **NOT** apply more than 11 pounds (10.0 lb ai) per acre of product to any one crop of sugarcane, (2) If making 2.2 pound (2.0 lb ai) per acre of product application during summer fallow period, **DO NOT** exceed 8.8 pounds (8.0 lb ai) per acre of product during the remainder of the growing season, or illegal residues may result.

TEXAS

Use ATRAZINE 90 for control of barnyardgrass, pigweed, purslane and sunflower, in plant or ratoon sugarcane.

Apply 4.4 pounds (4.0 lb ai) per acre of ATRAZINE 90 preemergence. Follow with one or two applications, as needed, at 3.3 pounds (3.0 lb ai) per acre of product postemergence to sugarcane and weeds.

For best results when weeds are emerged, add a nonionic surfactant at a concentration of 2 quarts per 100 gallons to the spray and apply before weeds exceed 1.5 inches in height.

TURFGRASSES FOR SOD (Florida Only)

St. Augustinegrass, Centipedegrass, and Zoysia Grass: Broadcast 2.2-4.4 lbs./A of product according to soil texture to control those weeds listed under **ATRAZINE 90 Applied Alone - Corn or Grain Sorghum - Preplant Surface-Applied, Preplant Incorporated, or Preemergence.**

Soil Texture	Broadcast Rate Per Acre	Application Timing
Muck or Peat	4.4 lbs. (4.0 lb ai)	Old beds: Within 2 days after lifting sod
		New beds: 3-4 days after sprigging or plugging
Sandy Soil	2.2 lbs. (2.0 lb ai)	Old beds: Within 2 days after lifting sod
		New beds: 7-10 days after sprigging or plugging

If weeds regrow, apply an additional 2.2 pounds (2.0 lb ai) per acre on muck or peat, or 1.1 pounds (1.0 lb ai) per acre on sandy soil.

USE RESTRICTIONS: (1) For muck or peat soils, **DO NOT** apply more than 4.4 pounds (4.0 lb ai) per acre for any application. **DO NOT** apply more than 6.6 pounds (6.0 lb ai) per acre per year (2) For sandy soils, do not apply more than 2.2 pounds (2.0 lb ai) per acre for any application. **DO NOT** apply more 3.3 pounds (3.0 lb ai) per acre per year.

USE PRECAUTIONS: To avoid crop injury, (1) **DO NOT** apply within 30 days prior to cutting or lifting. (2) **DO NOT** apply in combination with surfactants or other spray additives. (3) Use only on turfgrass reasonably free of infestation of insects, nematodes, and diseases. (4) On newly sprigged turfgrass, temporary slowing of growth may follow application.

TURFGRASSES FOR FAIRWAYS, COMMERCIAL TURFGRASS, SOD PRODUCTION* HOMES, DAYCARE FACILITIES, SCHOOLS, PLAYGROUNDS, PARKS, RECREATIONAL AREAS, AND SPORTS FIELDS**

*In states other than Florida. For use on turfgrasses for sod in Florida, see **TURFGRASS FOR SOD (FLORIDA ONLY)** section above.

** For use on Residential Sites, see section below.

Bermudagrass, Centipedegrass, St Augustinegrass, and Zoysia Grass: Apply ATRAZINE 90 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 90 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 90 APPLIED ALONE - CORN OR GRAIN SORGHUM** section of the label, also apply ATRAZINE 90 in late winter before the weeds emerge. Apply in a minimum of 15 gallons of water per acre or 1 gallon per 1,000 square feet.

Where annual bluegrass is the major weed, use 1.1 pounds (1.0 lb ai) of ATRAZINE 90 per acre (0.4 ounces per 1,000 square feet). Use 2.2 pounds (2.0 lb ai) per acre of product (0.8 ounces per 1,000 square feet) for control of the other weeds named above. **DO NOT** exceed 1.1 pounds (1.0 lb ai) per acre of product per treatment on newly sprigged turfgrass or on hybrid bermudagrass such as Tiflawn, Tifway, and Ormond.

For continued summer annual weed control, apply another 1.1 pounds (1.0 lb ai) per acre of product 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.

Turfgrass at Residential Sites (including homes, daycare facilities, schools, playgrounds, parks, recreational areas, and sports fields): DO NOT apply more than per acre for any application. **DO NOT** apply more than 2.2 pounds (2.0 lb ai) per acre per year.

Bermudagrass, Centipedegrass, St Augustinegrass, and Zoysia Grass: Apply ATRAZINE 90 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 90 will control annual bluegrass even if it is emerged at time of treatment. For control of summer annual weeds listed above, also apply ATRAZINE 90 in late winter before the weeds emerge. For all weeds, use 0.75 fluid ounce of ATRAZINE 90 (22 ml) per 1,000 square feet (2 pints per acre). Apply in a minimum of 1 gallon of water per 1,000 square feet (15 gallons of water per acre).

For continued summer annual weed control, apply another 0.75 fluid ounce (22 ml) per 1,000 square feet (2 pints per acre) at least 30 days after the previous application, but not after April 15. However, **DO NOT** make more than two applications of this product per year.

USE RESTRICTIONS: (1) **DO NOT** use on golf greens. (2) **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. (3) **DO NOT** use on muck or alkaline soils. (4) **DO NOT** apply over the rooting area of trees or ornamentals not listed on this label. (5) **DO NOT** overseed with desirable turfgrass within 4 months before or 6 months after treatment. (6) **DO NOT** apply this product to newly seeded bermudagrass until it has over-wintered and has a well-developed rhizome system. **DO NOT** exceed 2.2 lbs. product /A within 12 months of seeding bermudagrass. (7) **DO NOT** graze or feed turf clippings to animals, or illegal residues may result.

USE PRECAUTIONS: On newly sprigged turfgrass and hybrid bermudagrass, temporary slowing of growth and yellowing may occur following application. To avoid turf injury, (1) Use only on turfgrass reasonably free of infestations of insects, nematodes and diseases.

MACADAMIA NUTS

For preemergence control of many broadleaf and grass weeds, including crabgrass, foxtail, wiregrass, Flora's paintbrush, spanishneedles, and fireweed, broadcast 2.2 to 4.4 pounds (2.0 to 4.0 lb ai) per acre of product before harvest and before weeds emerge. Repeat as necessary.

USE RESTRICTIONS: (1) **DO NOT** apply more than 4.4 pounds (4.0 lb ai) per acre for any application. (2) **DO NOT** apply more than 8.8 pounds (8.0 lb ai) per acre per year. (3) **DO NOT** spray when nuts are on ground during harvest period. (4) **DO NOT** apply by air. (5) Application via mechanically pressurized handguns is prohibited.

GUAVA

Use only on established plantings which are at least 18 months old. Apply as directed spray at 2.2 to 4.4 pounds (2.0 to 4.0 lb ai) per acre ATRAZINE 90 in 20 to 50 gallons of spray mix pre-emergence or early postemergence to weeds. When applying postemergence, the use of a surfactant and great spray volume (80 to 100 gallons 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 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 4.4 pounds (4.0 lb ai) per acre for any application. (4) **DO NOT** apply more than 8.8 pounds (8.0 lb ai) of ATRAZINE 90 per acre per year. (5) Application via mechanically pressurized handguns is prohibited.

STORAGE AND DISPOSAL

DO NOT contaminate water, food, or feed by storage, disposal, or cleaning of equipment.

PESTICIDE STORAGE: Store in a dry place.

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: Nonrefillable container. DO NOT reuse or refill this container. Completely empty bag into application equipment. Then offer for recycling if available or dispose of empty bag in a sanitary landfill or by incineration or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY

NOTICE: Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before buying or using this product. If the terms are not acceptable, return the product at once, unopened, and the purchase price will be refunded.

The Directions for Use of this product must be followed carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Ineffectiveness or other unintended consequences may result because of such factors as manner of use or application, weather, presence of other materials or other influencing factors in the use of the product, which are beyond the control of LIBERTY CROP PROTECTION, LLC or Seller, TO THE EXTENT CONSISTENT WITH APPLICABLE LAW All such risks shall be assumed by Buyer and User, and Buyer and User agree to hold LIBERTY CROP PROTECTION, LLC and Seller harmless for any claims relating to such factors.

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