

# 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



# CORNBELT<sup>®</sup> ATRAZINE 4L

## Herbicide

For season-long weed control in corn, sorghum, and certain other crops

ACTIVE INGREDIENTS:	% BY WT.
Atrazine: 2-chloro-4-ethylamino-6-isopropylamino-s-triazine .....	42.9%
Related Compounds: .....	0.7%
<b>OTHER INGREDIENTS:</b> .....	<b>56.4%</b>
<b>TOTAL</b> .....	<b>100.0%</b>

Cornbelt Atrazine 4L contains 4 lb active ingredient per gallon.

**SHAKE WELL BEFORE USING - USE ENTIRE CONTENTS AT ONE TIME**

**KEEP OUT OF REACH OF CHILDREN  
CAUTION**

See additional precautionary statements and directions for use inside booklet.

**IMPORTANT: Read the entire Directions for Use, Conditions of Warranties and Limitations of Liability before using this product.  
If terms are not acceptable, return the unopened product container at once.**

EPA Reg. No. 11773-1  
EPA Est. No. 11773-IA-1

**NET CONTENTS: 2.5 GALLONS**

Van Diest Supply Company  
Webster City, IA 50595-0610

Job 196114

<b>FIRST AID</b>	
<b>IF SWALLOWED:</b>	<ul style="list-style-type: none"> <li>• Call a poison control center or doctor immediately for treatment advice.</li> <li>• Have person sip a glass of water if able to swallow.</li> <li>• Do not induce vomiting unless told to do so by a poison control center or doctor.</li> <li>• Do not give anything by mouth to an unconscious person.</li> </ul>
<b>IF INHALED:</b>	<ul style="list-style-type: none"> <li>• Move person to fresh air.</li> <li>• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth if possible.</li> <li>• Call a poison control center or doctor for further treatment advice.</li> </ul>
<b>IF ON SKIN OR CLOTHING:</b>	<ul style="list-style-type: none"> <li>• Take off contaminated clothing.</li> <li>• Rinse skin immediately with plenty of water for 15-20 minutes.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
<b>IF IN EYES:</b>	<ul style="list-style-type: none"> <li>• Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li> <li>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
Have the product container or label with you when calling a poison control center or doctor or going for treatment.	
<b>HOT LINE NUMBER</b>	
For 24 Hour Medical Emergency Assistance (Human or Animal) or Chemical Emergency Assistance (Spill, Leak, Fire, or Accident), Call 1-800-424-9300.	

## PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS CAUTION

Harmful if swallowed, inhaled, or absorbed through skin. Do not breathe vapors or spray mist. Avoid contact with eyes, skin, or clothing.

### PERSONAL PROTECTIVE EQUIPMENT (PPE)

**Applicators using spray equipment mounted on their backs must wear:**

- Coveralls over long-sleeved shirt and long pants,
- Waterproof gloves made of barrier laminate, butyl rubber ≥ 14 mils, nitrile rubber ≥ 14 mils, neoprene rubber ≥ 14 mils, natural rubber ≥ 14 mils, polyethylene, polyvinyl chloride (PVC) ≥ 14 mils, or Viton® ≥ 14 mils,
- If tank mixing with an oil based product wear chemical resistant gloves made of barrier laminate, nitrile rubber ≥ 14 mils, neoprene rubber ≥ 14 mils, or Viton ≥ 14 mils
- Chemical-resistant footwear plus socks.

**Mixers, Loaders, all other Applicators, Flaggers, and other handlers must wear:**

- Long sleeved shirt and long pants
- Waterproof gloves made of barrier laminate, butyl rubber ≥ 14 mils, nitrile rubber ≥ 14 mils, neoprene rubber ≥ 14 mils, natural rubber ≥ 14 mils, polyethylene, polyvinyl chloride (PVC) ≥ 14 mils, or Viton ≥ 14 mils
- If tank mixing with an oil based product wear chemical resistant gloves made of barrier laminate, nitrile rubber ≥ 14 mils, neoprene rubber ≥ 14 mils, or Viton ≥ 14 mils
- Shoes plus socks
- Chemical-resistant apron when mixing/loading, cleaning up spills, cleaning equipment, or otherwise exposed to the concentrate

See Engineering Controls for additional requirements.

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

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them.

### ENGINEERING CONTROLS

Mixers and loaders supporting aerial applications at a rate greater than 3 lb ai/A must use a closed system that meets the requirements for dermal protection listed in the Worker Protection Standard (WPS) for Agricultural Pesticides [40CFR 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
- 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 [40CFR 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 [40CFR 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 [40CFR 170.240(d)(5)], the handler PPE requirements may be reduced or modified as specified in the WPS.

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

### **USER SAFETY RECOMMENDATIONS**

**Users should:**

- Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing/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 ground water which may be used as drinking water. Atrazine has been found in ground water. Users are advised not to apply atrazine to sand and loamy sand soils where the water table (ground water) 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 ground water.

This product must not be mixed/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 capacity 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 shipments to the mixing/loading sites.

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

This product must not be mixed or loaded within 50 feet of intermittent streams and rivers, natural or impounded lakes and reservoirs. This product may not be applied aerially or by ground within 66 feet of the points where field surface water runoff enters perennial or intermittent streams and rivers or within 200 feet around 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, seeded with grass or other suitable crop.

### **TILE-OUTLETTED TERRACED FIELDS CONTAINING STANDPIPES**

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 2-3 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.

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.

### **NON-TARGET ORGANISM ADVISORY STATEMENT**

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.

### **CONDITIONS OF SALE AND WARRANTY**

By using this product, user or buyer accepts the following Conditions, Disclaimer of Warranties and Limitations of Liability.

**CONDITIONS:** The directions for use of this product are believed to be adequate and must be followed carefully. However, it is impossible to eliminate all risks associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or the manner of use or application, all of which are beyond the control of Van Diest Supply Co. All such risks shall be assumed by the user or buyer.

**DISCLAIMER OF WARRANTIES:** To the extent consistent with applicable law, Van Diest Supply Co. makes no other warranties, express or implied, of merchantability or of fitness for a particular purpose or otherwise, that extend beyond the statements made on this label. No agent of Van Diest Supply Co. is authorized to make any warranties beyond those contained herein or to modify the warranties contained herein. To the extent consistent with applicable law, Van Diest Supply Co. disclaims any liability whatsoever for special, incidental or consequential damages resulting from the use or handling of this product.

LIMITATIONS OF LIABILITY: To the extent consistent with applicable law, the exclusive remedy of the user or buyer for any and all losses, injuries or damages resulting from the use or handling of this product, whether in contract, warranty, tort, negligence, strict liability or otherwise, shall not exceed the purchase price paid or at Van Diest Supply Co.'s election, the replacement of product.

## DIRECTIONS FOR USE

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

### 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](mailto:ESPP@epa.gov). You must use the Bulletin valid for the month in which you will apply the product.

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

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

## AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural 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
- Waterproof gloves made of any waterproof material
- 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 or allow others to enter treated areas without protective clothing until sprays have dried.**

**FAILURE TO FOLLOW THE DIRECTIONS FOR USE AND PRECAUTIONS ON THIS LABEL MAY RESULT IN POOR WEED CONTROL, CROP INJURY, OR ILLEGAL RESIDUES.**

## USE RESTRICTIONS

**Sale, use, and distribution of this product in Nassau and Suffolk Counties in the State of New York is prohibited.**

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).

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

**Do not apply atrazine and propazine products to the same sorghum acre.**

**Prohibit application via mechanically pressurized handguns to macadamia nuts, sweet corn, and guava.**

Use on roadsides; Conservation Reserve Program (CRP) land; conifers, including Christmas Tree plantings; timber; forestry; and, Miscanthus and other perennial bioenergy crops is prohibited.

**Residential turf, sprays:** Reduce the single maximum application rate to 1.0 lb ai/A.

**Applications made by backpack-spray to landscape turf:** Restrict backpack application to landscape turf to spot treatments only.

**Commercial Fertilizer:** The impregnation of dry bulk commercial fertilizer is restricted to 340 tons per worker per day for no more than 30 days per calendar year for use on corn, sorghum and sod.

## GENERAL INFORMATION

This herbicide controls many annual broadleaf and grass weeds in corn, sorghum, sugarcane, and certain other crops specified on this label. This product may be applied before or after weeds emerge.

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

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.

**DO NOT USE THIS PRODUCT ON CROPS GROWN FOR SEED. SOME INBREDS HAVE A VERY LOW TOLERANCE TO CHEMICALS AND THE USE OF THIS COMPOUND COULD RESULT IN INJURY TO A CROP GROWN FOR SEED.**

This product is noncorrosive to equipment and metal surfaces, is nonflammable, and has low electrical conductivity.

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

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

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

**Note:** Van Diest Supply Co. does not recommend applications in combination with other herbicides or oils except as specifically described on the label or in literature published by Van Diest Supply Co.

## WEED RESISTANCE MANAGEMENT

Atrazine, the active ingredient in this product, is a Group 5 herbicide based on the mode of action classification system of the Weed Science Society of America. Any weed population may contain plants naturally resistant to Group 5 herbicides. Such resistant weed plants may not be effectively managed using Group 5 herbicides but may be effectively managed utilizing another herbicide alone or in mixtures from a different group and/or by using cultural or mechanical practices. However, a herbicide mode of action classification by itself may not adequately address specific weeds that are resistant to specific herbicides. Consult your local company representative, state cooperative extension service, professional consultants or other qualified authorities to determine appropriate actions for treating specific resistant weeds.

### Scout and know your field

- Know weed species present in the field to be treated through scouting and field history. An understanding of weed biology is useful in designing a resistance management strategy. Ensure the weed management program will control all weeds present.
- Fields should be scouted prior to application to determine species present and growth stage. Always apply this herbicide at the full labeled rate and correct timing for the weeds present in the field.

### Utilize non-herbicidal practices to add diversity

- Use diversified management tactics such as cover crops, mechanical weed control, harvest weed seed control, and crop rotation as appropriate.

### Use good agronomic practices, start clean and stay clean

- Use good agronomic practices that enhance crop competitiveness.
- Plant into weed-free fields utilizing tillage or an effective burndown herbicide for control of emerged weeds.
- Sanitize farm equipment to avoid spreading seed or vegetative propagules prior to leaving fields.

### Difficult to control weeds

- Fields with difficult to control weeds should be planted in rotation with crops that allow the use of herbicides with an alternative mode of action or different management practices.
- Difficult to control weeds may require sequential applications, such as a broad spectrum preemergence herbicide followed by one or more postemergence herbicide applications. Utilize herbicides containing different modes of action effective on the target weeds in sequential applications.

### Do not overuse the technology

- Do not use more than two applications of this or any other herbicide with the same mode of action in a single growing season unless mixed with a herbicide with a different mode of action which provides overlapping spectrum for the difficult to control weeds.

### Scout and inspect fields following application

- Prevent an influx of weeds into the field by controlling weeds in field borders.
- Scout fields after application to verify that the treatment was effective.
- Suspected-herbicide resistant weeds may be identified by these indicators
  - o Failure to control a weed species normally controlled by the herbicide at the dose applied, especially if control is achieved on adjacent weeds;
  - o A spreading patch of non-controlled plants of a particular weed species; and
  - o Surviving plants mixed with controlled individuals of the same species.
- Report non-performance of this product to your Van Diest Supply Co. representative. If resistance is suspected ensure weed escapes are controlled using a herbicide with an effective mode of action and/or use non-chemical means to prevent further seed production.

**Prevent weed escapes before, during, and after harvest**

- Do not allow weed escapes to produce seed or vegetative structures such as tubers or stolons which contribute to spread and survival. Consider harvest weed seed management and control weeds post-harvest to prevent seed production.

**Resistant Weeds**

- Contact your local Van Diest Supply Co. representative to determine if weeds resistant to this mode of action are present in your area. If resistant biotypes have been reported, use the full labeled rate of this product, apply at the labeled timing, and tank-mix with a different mode of action product so there are multiple effective modes of application for each suspected resistant weed.

**CORNBELT ATRAZINE 4L APPLIED ALONE-CORN OR GRAIN SORGHUM\***

**Preplant Surface-Applied, Preplant Incorporated, or Preemergence (or Postemergence at 4 pt./A of Cornbelt Atrazine 4L With Oil)**

**Broadleaf and Grass Weeds Controlled**

Barnyardgrass (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 2.4 pt./A of Cornbelt Atrazine 4L)**

**Broadleaf Weeds Controlled**

Annual morningglory	Mustards	Wild Buckwheat
Cocklebur	Pigweed	Velvetleaf**
Jimsonweed	Ragweed	
Lambsquarters	Smartweed	

\*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.

\*\*Partial control only.

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

**Rotational Crops – All Uses:** (1) Do not rotate to any crop except corn or sorghum until the following year or injury may occur. (2) If applied after June 10, do not rotate with crops other than corn or sorghum the next year or crop injury may occur. (3) In the High Plains and Intermountain areas of the West where rainfall is sparse and erratic or where irrigation is required, use only when corn or sorghum is to follow corn or sorghum or when a crop of untreated corn or sorghum is to precede other rotational crops. (4) In eastern parts of the Dakotas, KS, western MN, and NE, do not rotate to soybeans if the rate applied to corn or sorghum was more than 4 pts./A of Cornbelt Atrazine 4L 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.

**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 gal of spray mixture per acre 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 35-40 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 gal/minute/100 gal tank size circulated through a correctly positioned sparger tube or jets.

Use screens to protect the pump and to prevent nozzles from clogging. Screens placed on the suction side of the pump should be 16-mesh or coarser. Do not place a screen in the recirculation line. Use 50-mesh or coarser screens between the pump and boom, and where required, at the nozzles. Check nozzle manufacturer's recommendations.

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

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

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

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

**Application in water or liquid fertilizer:** Nitrogen solution or complete liquid fertilizer may replace all or part of the water as a carrier for preemergence, preplant incorporated, or preplant surface ground application on corn and sorghum. Check the compatibility of this product with liquid fertilizer and/or nitrogen solution as shown in Compatibility test section before use. Do not apply in nitrogen solution or complete liquid fertilizer after corn or sorghum emerges or crop injury may occur.

**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 one 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 this product and water, a compatibility agent such as Cornbelt® Compatibility Agent should be used. Any of the above oils contaminated with water or other materials can cause compatibility problems and/or crop injury.

## **SPRAY DRIFT MANAGEMENT**

### **MANDATORY SPRAY DRIFT MANAGEMENT**

#### **Aerial Applications**

- Do not release spray at a height greater than 10 ft 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).
- If the windspeed is 10 miles per hour or less, applicators must use ½ swath displacement upwind at the downwind edge of the field. When the windspeed is between 11-15 miles per hour, applicators must use ¾ 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 windspeed 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.
- User must maintain a 150 foot (46 m) 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.

#### **Ground Boom Applications**

- User must only apply with the release height recommended by the 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.
- Do not apply during temperature inversions.
- User must maintain a 15 foot (4.6 m) 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).
- Do not apply when wind speeds exceed 10 miles per hour at the application site.
- Do not apply during temperature inversions.
- User must maintain a 15 foot (4.6 m) 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.

## **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.

#### **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 WIND CONDITIONS.
- Applicators need to be familiar with local wind patterns and terrain that could affect spray drift.

#### **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.

## **MIXING PROCEDURES**

**All Uses:** (1) Be sure sprayer is clean and not contaminated with any other materials or crop injury or sprayer clogging may result. (2) Fill tank ¼ 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 container 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 the 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.

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

1. Add 1 pt of fertilizer to each of two 1 qt jars with tight lids.
2. To **one** of the jars, add ¼ tsp or 1.2 milliliters of a compatibility agent approved for this use such as Cornbelt® Compatibility Agent (¼ tsp is equivalent to 2 pt/100 gal spray). Shake or stir gently to mix.
3. To **both** jars, add the appropriate amount of herbicide(s). If more than one herbicide is used, add them 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 teaspoon or 2.5 milliliters to each jar.

4. After adding all ingredients, put lids on and tighten, and invert each jar 10 times to mix. Let the mixtures stand 15 minutes and then look for separation, large flakes, precipitates, gels, heavy oily film on the jar, or other signs of incompatibility. Determine if the compatibility agent is needed in the spray mixture by comparing the 2 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 ½ of the compatibility agent to the fertilizer and the other ½ to the emulsifiable concentrate or flowable herbicide before addition to the mixture. If incompatibility is still observed, do not use the mixture.

## CROP USE DIRECTIONS

### 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, IA, IL, IN, KS, KY, MN, MO, MT, ND, NE, SD, WI, and WY. Apply the recommended rate of Cornbelt Atrazine 4L shown in Table 1 up to 45 days prior to planting. On coarse-textured soils, do not apply more than 2 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-mix combination with a contact herbicide (for example, Gramoxone® brands or Roundup® brands). 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 2 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 1½ inches in height and before corn exceeds 12 inches in height at rate in Table 1.

**Table 1: Broadleaf and Grass Weed Control on Corn\***

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

• **On Highly Erodible Soils (as defined by the Natural Resources Conservation Services)**

If conservation tillage is practiced, leaving at least 30% of the soil covered with plant residues at planting, apply a maximum of 4 pt/A of Cornbelt Atrazine 4L (2.0 lb ai/A) as a broadcast spray. If the soil coverage with plant residue is less than 30% at planting, a maximum of 3.2 pt/A of Cornbelt Atrazine 4L (1.6 lb ai/A) may be applied.

• **On Soils Not Highly Erodible**

Apply 4 pt/A of Cornbelt Atrazine 4L (2.0 lb ai/A) as a broadcast spray.

#### FOR POSTEMERGENCE APPLICATION

If no atrazine was applied prior to corn emergence, apply a maximum of 4 pt/A of Cornbelt Atrazine 4L (2.0 lb ai/A) broadcast. If a postemergence treatment is required following an earlier atrazine application, the total atrazine applied may not exceed 2.5 lb active ingredient (5 pt of Cornbelt Atrazine 4L) per acre per calendar year.

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

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.

**Postemergence with emulsifiable oil or oil concentrate in water:** Add the following volume of one of the type oils indicated for aerial or ground application unless the oil label specifies otherwise:

Type Oil	Ground Application	Aerial Application
Oil Concentrate (Crop or Petroleum-derived)	1 qt/A	½ -1 qt/A
Petroleum-derived oil	1 gal/A	2 qt/A

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

**Broadleaf and grass control:** For postemergence control of those weeds listed under **Preplant Incorporated and Preemergence**, broadcast 4 pt/A of Cornbelt Atrazine 4L plus emulsifiable oil or oil concentrate after weed emergence but before weeds reach 1½ inches in height and before corn exceeds 12 inches in height.

**Broadleaf control:** For postemergence control of those weeds listed under **Postemergence with emulsifiable oil or oil concentrate in water**, broadcast 2.4 pt/A of Cornbelt Atrazine 4L plus emulsifiable oil or oil concentrate before pigweed and lambsquarters reach 6 inches in height and before all other weeds reach 4 inches in height. A cultivation may be necessary if all weeds are not controlled or if weeds regrow.

*Precautions: For applications with emulsifiable oil or oil concentrate in water:*

- Inbred lines or any breeding stock may be severely injured by applications with emulsifiable oil or oil concentrate.
- 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 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, 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.
- Do not exceed 2.5 lb active ingredient (or 5 pt of Cornbelt Atrazine 4L) per acre per calendar year.
- Postemergence applications to corn must be made before corn exceeds 12 inches in height.

## TANK MIXTURES FOR CORN

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

Dual Magnum® brands (S-metolachlor)	Lasso or Lasso EC + Roundup brands
Dual Magnum brands + Gramoxone brands	Lasso or Lasso EC + Gramoxone brands
Dual Magnum brands + Roundup brands	Gramoxone brands
Dual Magnum brands + Princep®	Princep
Dual Magnum brands + Princep + Gramoxone brands	Princep + Gramoxone brands
Dual Magnum brands + Princep + Roundup brands	Princep + Roundup brands
Ramrod® (propachlor)	Roundup brands
Lasso® or Lasso EC (alachlor)	

Use tank mix directions appearing on the labels of the above listed herbicides when tank mixing with this product. When tank mixing atrazine containing products, do not exceed 2.0 lb ai/A of atrazine as a pre or post application or 2.5 lb ai/A as the total of pre plus post applications per calendar year. Observe all precautions and limitations on labeling of products used in a particular tank mix.

**Note:** When the labels of the above herbicides refer to atrazine 90DF, use equivalent active ingredients rates of Cornbelt Atrazine 4L. One lb. of atrazine 90DF equals 1.8 pt of Cornbelt Atrazine 4L.

**Princep 4L, or Princep Caliber 90®:** In addition to the weeds listed under Cornbelt Atrazine 4L Applied Alone- Corn or Grain Sorghum-Preplant Surface Applied, Preplant Incorporated, or Preemergence, this combination also controls crabgrass, fall panicum, and carpetweed.

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

**Preplant Surface Applied:** Use on medium- and fine-textured soils with minimum-tillage or no-tillage systems only in CO, IA, IL, IN, KS, KY, MN, MO, MT, ND, NE, SD, WI, and WY. Apply the recommended rate of Cornbelt Atrazine 4L and Princep shown in Table 2 up to 45 days prior to planting. Refer to the Cornbelt Atrazine 4L alone section for information if weeds should develop following the early treatment. On coarse-textured soils, do not apply more than 2 weeks prior to planting. Refer to the **Cornbelt Atrazine 4L Applied 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, Gramoxone brands or Roundup brands). 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 2 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 Princep Caliber 90, or Princep 4L labels for further directions, limitations, and precautions.

**TABLE 2: TANK MIXTURES WITH PRINCEP ON CORN**

Soil Texture	Broadcast Rate Per Acre			
	1:1 Ratio*		1:2 Ratio**	
	Cornbelt Atrazine 4L	Princep 4L <sup>1</sup>	Cornbelt Atrazine 4L	Princep 4L <sup>1</sup>
Sand, loamy sand, sandy loam	2 pt	2 pt	1.32 pt	2.64 pt
Loam, silt loam, silt, clay loam, sandy clay loam, silty clay loam, sandy clay, or silty clay with low organic matter	2.4 pt	2.4 pt	1.6 pt	3.6 pt
Loam, silt loam, silt, clay loam, sandy clay loam, silty clay loam, sandy clay, or silty clay with medium to high organic matter, and clay (including dark prairie soils of the Corn Belt)	3 pt	3 pt	1.92 pt	3.84 pt

\*For control of most weeds.

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

<sup>1</sup>When using Princep Caliber 90, use equivalent active ingredient rates. One lb of Princep Caliber 90 equals 1.8 pt of Princep 4L.

**Princep 4L, or Princep Caliber 90 plus Roundup brands:** 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 the Roundup brand label for all directions, weeds controlled, precautions, and limitations.

**Princep 4L, or Princep Caliber 90 plus Gramoxone brands:** Use as a tank mixture with Princep and Gramoxone brands 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 Princep to water in spray tank, agitating until thoroughly mixed. Then add Gramoxone brands and a nonionic surfactant such as Cornbelt Premier 90. Continue agitation during application. Broadcast 2-4 pt of this product plus 2-4 pt of Princep 4L (or 1.1-2.2 lb of Princep Caliber 90) plus a suitable amount of Gramoxone brands in 20-60 gal of water per sprayed acre. Refer to the Gramoxone brands label for the appropriate rates to utilize in this tank mixture. Apply before, during, or after planting but before corn emerges. Add 0.5 pt of a nonionic surfactant such as Cornbelt Premier 90 per 100 gal of spray mixture. Use the higher rate of Gramoxone brands specified on the label if existing vegetation is 4-6 inches tall. This mixture will not control weeds taller than 6 inches.

Refer to further limitations and precautions on labels for this product, Princep, and Gramoxone brands.

*Precautions: For all applications to corn:*

- To avoid crop injury and illegal residues, do not apply more than 2.5 lb/A active ingredient (5 pt/A of Cornbelt Atrazine 4L) per calendar year.
- For best control of velvetleaf and cocklebur, the application rate cannot be less than 2 lb/A active ingredient, either alone or in tank mix combinations.
- 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.

**Note for all applications to corn: Do not graze or feed forage from treated areas for 60 days following application, or illegal residues may result. For sweet corn, do not graze or feed forage from treated areas for 45 days following application, or illegal residues may result. Applications by mechanically pressurized handguns are prohibited in sweet corn.**

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

If weeds are present at time of treatment, apply in a tank-mix combination with a contact herbicide (for example, Gramoxone brands or Roundup brands). 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 2 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 exceeds 12 inches in height.

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

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

• **On Highly Erodible Soils (as defined by the Natural Resources Conservation Service)**

If conservation tillage is practiced, leaving at least 30% of the soil covered with plant residues at planting, apply a maximum of 4 pt/A of Cornbelt Atrazine 4L (2.0 lb ai/A) as a broadcast spray. If the soil coverage with plant residue is less than 30% at planting, a maximum of 3.2 pt/A of Cornbelt Atrazine 4L (1.6 lb ai/A) may be applied.

• **On Soils Not Highly Erodible**

Apply 4 pt/A of Cornbelt Atrazine 4L (2.0 lb ai/A) as a broadcast spray.

### **FOR POSTEMERGENCE APPLICATION**

If no atrazine was applied prior to sorghum emergence, apply a maximum of 4 pt/A of Cornbelt Atrazine 4L (2.0 lb ai/A) broadcast. If a postemergence treatment is required following an earlier atrazine application, the total atrazine applied may not exceed 2.5 lb active ingredient (5 pt of Cornbelt Atrazine 4L) per acre per calendar year.

<sup>1</sup>Do not apply preplant surface or preplant incorporated in AL, AR, FL, GA, LA, MS, NC, NM, OK, SC, TN, or TX. Do not apply preemergence in NM, OK, or TX, except in northeast OK and the TX Gulf Coast and Blacklands area.

<sup>2</sup>Where there are state/local requirements regarding Atrazine use (including lower maximum rates and/or greater setbacks) which are different from the label, the more restrictive/protective requirements must be followed. Certain states may have established rate limitations within specific geographical areas. Consult your state lead pesticide control agency for additional information. It is a violation of this label to deviate from state use regulations.

In case of planting failure, sorghum or corn may be replanted. Do not make a second broadcast application or injury may occur. If originally applied in a band and sorghum or corn is replanted in untreated row middles, this product may be applied in a band to the second planting provided the maximum application rate of 2.5 lb ai/A of Atrazine per calendar year is not exceeded.

**Preemergence broadleaf weed control in furrow-irrigated bedded sorghum (AZ and CA only):** For preemergence control of many broadleaf weeds, broadcast 1.6-2.4 pt/A of Cornbelt Atrazine 4L after bed preparation, during or after planting, but before sorghum and weeds emerge and before the first furrow irrigation. Follow with several regular irrigations, making sure to thoroughly wet all soil.

*Precautions for preemergence application to furrow-irrigated bedded sorghum in AZ and CA: To avoid possible sorghum injury, do not use on sand or loamy sand soil or on sorghum planted in furrows. Applications to sorghum growing on alkali soils or where cuts, fills, or erosion have exposed calcareous or alkali subsoils may cause crop injury. In case of crop failure, do not replant sorghum for 8 months following application. Corn may be planted immediately.*

**Postemergence broadleaf weed control with emulsifiable oil or oil concentrate in water:** Broadcast 2.4 pt/A of Cornbelt Atrazine 4L for control of many broadleaf weeds. Apply before pigweed and lambsquarters reach 6 inches in height and before all other weeds reach 4 inches in height. In CO, western KS, NM, OK, TX, and desert regions of AZ and CA, apply when sorghum is 6-12 inches in height but before it reaches boot stage. In all other areas, apply after sorghum reaches the 3-leaf stage but before it exceeds 12 inches in height. Add 1 gal of emulsifiable oil per acre for ground application and 0.5 gal/A for aerial application, or add 1 qt/A of oil concentrate for ground application. A cultivation may be necessary if all weeds are not controlled or if weeds regrow.

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

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

**Postemergence broadleaf weed control with surfactant (CO, western KS, NM, OK, TX, and desert regions of AZ and CA only):** Broadcast 2.4 pt/A of Cornbelt Atrazine 4L plus 0.75-1.5 pt of surfactant after sorghum reaches 6 inches in height but before weeds exceed 1½ inches in height. Apply only on sandy loam and fine- textured soil.

*Precautions: For all applications to sorghum:*

- *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.*
- *Application to sorghum growing under stress caused by minor element deficiency or to sorghum growing on highly calcareous soil may result in crop injury.*
- *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.*
- *Injury may occur if both this herbicide, preplant surface, preplant incorporated, or preemergence, and an at-planting systemic insecticide applied in-furrow are used.*
- *Do not apply more than 2.5 lb active ingredient (5 pt of this product) per acre per calendar 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.*

**Note: Do not graze or feed forage from treated areas for 60 days following a preemergence application or 45 days following a postemergence application, or illegal residues may result. Do not apply atrazine and propazine products to the same sorghum acre.**

### TANK MIXTURES FOR GRAIN SORGHUM

**Dual Magnum:** Use as tank mixture with Dual Magnum for control of those weeds listed on the Dual Magnum label as well as on this label. Use this tank mixture only on sorghum seed treated with Concep® III. Refer to the Dual Magnum label for all directions, application 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 0.8-1 qt/A of Cornbelt Atrazine 4L postemergence to the weeds in November or December to land that will be planted to corn, grain sorghum, or forage sorghum the following spring. For best results, add a suitable surfactant such as Cornbelt Premier 90 at the rate of 0.5% of the spray volume, an emulsifiable oil at the rate of 1.0% of the spray volume, or an oil concentrate at the rate of 1 qt/A.

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

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

### CORNBELT ATRAZINE 4L ALONE-CHEMICAL FALLOW

Do not apply more than 2.25 lb ai/A for any application and do not apply more than one application per year.

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

**Wheat-Sorghum-Fallow (AR, CO, GA, IL, KS, LA, MS, MO, NE, NM, NC, OK, SD & TX Only):** To control annual broadleaf and grass weeds following wheat harvest and in the following sorghum crop when grown under minimum tillage, broadcast 4.5 pt/A of Cornbelt Atrazine 4L to wheat stubble immediately following wheat harvest. If weeds are present at application, remove them with a sweep plow or other suitable implement after application or use an approved contact herbicide before or after the application of Cornbelt Atrazine 4L. Plant sorghum into wheat stubble the following spring with minimum soil disturbance. Use a surface planter or a planter leaving a shallow furrow. If weeds are present at planting, remove them with a sweep plow or other suitable implement before planting.

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

*Precautions: (1) Use only on silt loam or fine-textured soil or crop injury may result. (2) Wheat-sorghum-fallow cropping sequence must be followed. (3) Do not apply following sorghum harvest.*

**Note:** To avoid illegal residues, do not graze or feed forage from treated area to livestock. To avoid illegal residues and crop injury, do not plant any crop other than those on this label within 18 months following treatment.

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

On soils in ND and SD with a pH greater than 7.5, do not apply more than 1.5 lb ai/A for any application. Do not apply more than one application per year. On soils in ND and SD with a pH less than 7.5, do not apply more than 2.0 lb ai/A for any application. Do not apply more than one application per year. For all other locations, do not apply more than 2.25 lb active ingredient per application. Do not apply more than one application per year. In the event grasses are present in the following spring, use a grass herbicide registered for use on corn.

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

**Wheat-Fallow-Wheat (CO, KS, ND, NE, SD, and WY Only):** For preemergence control of cheatgrass (downy brome, chess), common lambsquarters, field pennycress, kochia, mustard, Russian thistle, wild lettuce, and suppression of volunteer wheat during fallow period of a wheat-fallow-wheat rotation, broadcast 1-2 pt/A of Cornbelt Atrazine 4L only on those soils listed in the "Precautions" section of **Cornbelt Atrazine 4L Alone-Chemical Fallow.** 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)

**Gramoxone brands:** If weeds are present at application, a tank mix with Gramoxone brands may be used. Broadcast 4.5 pt of Cornbelt Atrazine 4L plus a suitable amount of Gramoxone brands in 20-60 gal of water per acre by ground equipment. Add 0.5-1 pt of a nonionic surfactant such as Cornbelt Premier 90 per 100 gal of spray mixture. Add Cornbelt Atrazine 4L to spray tank first and thoroughly mix with water. Then add Gramoxone brands followed by surfactant. Use the higher rate of Gramoxone brands specified on the label if weeds are 4-6 inches tall. This mixture will not control weeds taller than 6 inches. Apply to stubble ground. Treat only once during same fallow period. Refer to Gramoxone brands label for further directions, precautions, and limitations.

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

**Gramoxone brands:** If weeds are present at application, a tank mix with Gramoxone brands may be used. Broadcast 1-2 pt of Cornbelt Atrazine 4L plus a suitable amount of Gramoxone brands in 20-60 gal of water per acre by ground equipment. Add 0.5-1 pt of a nonionic surfactant such as Cornbelt Premier 90 per 100 gal of spray mixture. Add Cornbelt Atrazine 4L to spray tank first and thoroughly mix with water. Then add Gramoxone brands followed by surfactant. Use the higher rate of Gramoxone brands specified on the label if weeds are 4-6 inches tall. This mixture will not control weeds taller than 6 inches. Apply to stubble ground. Treat only once during same fallow period. Refer to Gramoxone brands 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 Gramoxone brands, plant at least 2 inches deep and 12 months or more after application.

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

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

## SUGARCANE

- Do not apply more than 4.0 lb ai/A of atrazine for any application.
- Do not apply more than 10.0 lb ai/A of atrazine per year.

### General Use Directions for All States

For control of many broadleaf and grass weeds, including amaranths, crabgrass, fireweed, Flora's paintbrush, foxtails, junglerice, and wiregrass, broadcast 4-8 pt/A of Cornbelt Atrazine 4L at time of planting or ratooning but before sugarcane emerges. Broadcast aerially in a minimum of 5 gal of spray per acre or broadcast or band by ground equipment in a minimum of 20 gal/A unless indicated otherwise. One additional application may be made

over the sugarcane as it emerges, and 2 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 Cornbelt Atrazine 4L are used alone, apply in a minimum of 1 qt of water for each 1 qt of Cornbelt Atrazine 4L applied per acre.

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. (2) Do not apply after close-in. (3) Do not apply more than 20 pt/A of Cornbelt Atrazine 4L to any one crop of sugarcane or crop injury may result.

For specific weed problems, the following may be used. Other rate and application timings may be used for other weed spectrums and cultural practices, provided they are within the above **General Use Directions for All States** and are consistent with the **Precautions for All States and Uses**.

#### Florida

For control of emerged pellitory weed: Apply 0.8-1.2 pt/A of Cornbelt Atrazine 4L in at least 40 gal of water as a directed spray by ground equipment prior to close-in. Add 4 qt of surfactant for each 100 gal 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 8 pt/A of Cornbelt Atrazine 4L preemergence. Follow with 1 or 2 applications, as needed, postemergence to sugarcane and weeds, at 4 pt/A of Cornbelt Atrazine 4L. Treat before weeds exceed 1½ inches in height.
2. Apply 1-3 times, as needed, at 4 pt/A of Cornbelt Atrazine 4L postemergence to sugarcane and weeds. Treat before weeds exceed 1½ inches in height.

#### Louisiana

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

*Precautions: To avoid crop injury, (1) Do not apply more than 10 qt/A of Cornbelt Atrazine 4L to any one crop of sugarcane. (2) If making 4 pt/A of Cornbelt Atrazine 4L application during summer fallow period, do not exceed 8 qt/A of Cornbelt Atrazine 4L during the remainder of the growing season or illegal residues may result.*

#### Texas

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

Apply 8 pt/A of Cornbelt Atrazine 4L preemergence. Follow with 1 or 2 applications as needed at 6 pt/A of Cornbelt Atrazine 4L postemergence to sugarcane and weeds.

For best results when weeds are emerged, add a nonionic surfactant at a concentration of 2 qt/100 gal to the spray and apply before weeds exceed 1½ inches in height.

## TURFGRASSES FOR SOD

For muck or peat soils:

- Do not apply more than 4.0 lb ai/A (8 pt of Cornbelt Atrazine 4L) for any application.
- Do not apply more than 6.0 lb ai/A (12 pt of Cornbelt Atrazine 4L) per year.

For sandy soils:

- Do not apply more than 2.0 lb ai/A (4 pt of Cornbelt Atrazine 4L) for any application.
- Do not apply more than 3.0 lb ai/A (6 pt of Cornbelt Atrazine 4L) per year.

#### St. Augustinegrass, Centipedegrass, and Zoysiagrass

Broadcast 2-8 pt/A of Cornbelt Atrazine 4L according to soil texture to control those weeds listed under **Cornbelt Atrazine 4L Applied Alone-Corn or Grain Sorghum-Preplant Surface-Applied, Preplant Incorporated, or Preemergence**.

Muck or peat	8 pt	Old beds: Within 2 days after lifting sod. New beds: 3-4 days after sprigging or plugging
Sandy soil	2-4 pt	Old beds: Within 2 days after lifting sod. New beds: 7-10 days after sprigging or plugging.

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

*Precautions: To avoid crop injury, (1) Do not apply within 30 days prior to cutting or lifting. (2) Do not apply in combination with surfactants or other spray additives. (3) Use only on turfgrass reasonably free of infestations of insects, nematodes, and diseases. (4) On newly sprigged turfgrass and hybrid bermudagrass, temporary slowing of growth and yellowing may follow application. (5) Do not use north of NC (except in the VA Coastal Plains) or west of the high rainfall areas of eastern OK and eastern TX. (6) Do not use on alkaline or muck soils, except in FL. (7) Do not apply this product to newly seeded bermudagrass or zoysiagrass until it has overwintered and has a well-developed rhizome system. (8) On bermudagrass, spring applications may slow green-up and do not apply after April 15.*

#### Bermudagrass Sod Production

#### Bermudagrass, Centipedegrass, St. Augustinegrass, and Zoysiagrass

- Do not apply more than 1.0 lb ai/A (2 pt of Cornbelt Atrazine 4L) for any application.

- Do not apply more than 2.0 lb ai/A (4 pt of Cornbelt Atrazine 4L) per year.

Apply Cornbelt Atrazine 4L after October 1 before emergence of winter annual weeds for control of annual bluegrass, burclover, carpet burweed, chickweed, corn speedwell, henbit, hop clover, and spurweed. Cornbelt Atrazine 4L will control annual bluegrass even if it is emerged at time of treatment. For control of summer annual weeds listed in the preemergence section of the **Cornbelt Atrazine 4L Applied Alone – Corn or Grain Sorghum** section of this label, also apply Cornbelt Atrazine 4L in late winter before the weeds emerge. Apply in a minimum of 15 gal of water per acre or 1 gal/1,000 sq ft.

For continued summer annual weed control, apply another 2 pt/A of Cornbelt Atrazine 4L at least 30 days after the previous application. However, do not make more than 2 applications of this product per year. On bermudagrass, spring applications may slow green-up and do not apply after April 15.

*Precautions: On newly sprigged turfgrass and hybrid bermudagrass, temporary slowing of growth and yellowing may occur following application. To avoid turf injury, (1) Use only on turfgrass reasonably free of infestations of insects, nematodes, and diseases. (2) Do not use on golf greens. (3) Do not use north of NC (except in the VA Coastal Plains) or west of the high rainfall areas of eastern OK and eastern TX. (4) Do not use on muck or alkaline soils. (5) Do not apply over the rooting area of trees or ornamentals not listed on this label. (6) Do not overseed with desirable turfgrass within 4 months before or 6 months after treatment. (7) Do not apply this product to newly seeded bermudagrass or zoysiagrass until it has overwintered and has a well-developed rhizome system.*

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

#### **TURFGRASS FOR FAIRWAYS AND RESIDENTIAL SITES (Including Homes, Daycare Facilities, Schools, Playgrounds, Parks, Recreational Areas, and Sports Fields)**

##### **Bermudagrass, Centipedegrass, St. Augustinegrass, and Zoysiagrass**

- Do not apply more than 1.0 lb ai/A (2 pt of Cornbelt Atrazine 4L) for any application.
- Do not apply more than 2.0 lb ai/A (4 pt of Cornbelt Atrazine 4L) per year.

Apply Cornbelt Atrazine 4L after October 1 before emergence of winter annual weeds for control of annual bluegrass, burclover, carpet burweed, chickweed, corn speedwell, henbit, hop clover, and spurweed. Cornbelt Atrazine 4L will control annual bluegrass even if it is emerged at time of treatment. For control of summer annual weeds listed in the preemergence section of the **Cornbelt Atrazine 4L Applied Alone-Corn or Grain Sorghum** section of this label, also apply Cornbelt Atrazine 4L in late winter before the weeds emerge. Apply in a minimum of 15 gal of water per acre or 1 gal/1,000 sq ft.

For continued summer annual weed control, apply another 2 pt/A of Cornbelt Atrazine 4L at least 30 days after the previous application. However, do not make more than 2 applications of this product per year. On bermudagrass, spring applications may slow green-up and do not apply after April 15.

*Precautions: On newly sprigged turfgrass and hybrid bermudagrass, temporary slowing of growth and yellowing may occur following application. To avoid turf injury, (1) Use only on turfgrass reasonably free of infestations of insects, nematodes, and diseases. (2) Do not use on golf greens. (3) Do not use north of NC (except in the VA Coastal Plains) or west of the high rainfall areas of eastern OK and eastern TX. (4) Do not use on muck or alkaline soils. (5) Do not apply over the rooting area of trees or ornamentals not listed on this label. (6) Do not overseed with desirable turfgrass within 4 months before or 6 months after treatment. (7) Do not apply this product to newly seeded bermudagrass or zoysiagrass until it has overwintered and has a well-developed rhizome system.*

**Note:** Do not graze or feed turf clippings to animals or illegal residues may result. Applications by backpack sprayer to landscape turf are restricted to spot treatments only.

#### **MACADAMIA NUTS**

- Do not apply more than 4.0 lb ai/A of atrazine for any application.
- Do not apply more than 8.0 lb ai/A of atrazine per year.
- Applications by mechanically pressurized handguns are prohibited in macadamia nuts.

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

#### **GUAVA**

- Do not apply more than 4.0 lb ai/A of atrazine for any application.
- Do not apply more than 8.0 lb ai/A of atrazine per year.
- Applications by mechanically pressurized handguns are prohibited in guava.

Use only on established plantings which are at least 18 months old. Apply as a directed spray at 4-8 pt/A of Cornbelt Atrazine 4L in 20-50 gal of spray mix preemergence or early postemergence to weeds. When applying postemergence, the use of a surfactant and greater spray volume (80-100 gal of spray mix per acre) may enhance weed control. This product controls many annual broadleaf and grass weeds, including fireweed, purslane, scarlet pimpernel, spanishneedles, and sowthistle.

**Notes:** To avoid illegal residues, (1) Do not allow spray to contact foliage or fruit. (2) Do not apply more frequently than at 4-month intervals. (3) Do not apply more than 16 pts. of Cornbelt Atrazine 4L per year.

## STORAGE AND DISPOSAL

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

### Pesticide Storage

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

### Pesticide Disposal

Open dumping is prohibited. Wastes resulting from the use of this product are acutely toxic. Improper disposal of unused pesticide, spray mixture, or rinsate is a violation of federal law. Pesticide, spray mixture, or rinsate that cannot be used according to label instructions must be disposed of according to Federal, State, or local procedures. For guidance in proper disposal methods, contact your State Pesticide or Environmental Control Agency or the Hazardous Waste representative at the nearest EPA Regional Office.

### Container Handling (less than or equal to 5 gallons)

Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container  $\frac{1}{4}$  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. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into the application equipment or mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures approved by state and local authorities.

### Container Handling (Greater than 5 gallons)

Refillable container. 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 person refilling. To clean 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. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures approved by state and local authorities. For minor spills, leaks, etc., follow all precautions indicated on this label and clean up immediately. Take special care to avoid contamination of equipment and facilities during cleanup procedure and disposal of wastes. In the event of a major spill, fire, or other emergency, call 1-800-424-9300, day or night. If the container is damaged and leaking or material has been spilled follow these procedures:

1. Cover spill with absorbent material.
2. Sweep into disposal container.
3. Wash area with detergent and water and follow with clean water rinse.
4. Do not contaminate water supplies
5. Dispose of according to instructions.

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### Van Diest Supply Company

1434 220<sup>th</sup> Street  
Webster City, IA 50595-0610