



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY  
AND POLLUTION PREVENTION

November 10, 2021

Mandy Styles  
Drexel Chemical Company  
P.O. Box 13327  
Memphis, TN 38113-0327

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:* Drexel Atrazine 4F  
*EPA Registration Number:* 19713-498  
*Application Date:* October 22, 2020  
*Decision Number:* 568983

Dear Ms. Styles:

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

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labeling for 18 months from the date of this letter. After 18 months, you may only 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 Anna Romanovsky at [Romanovsky.anna@epa.gov](mailto:Romanovsky.anna@epa.gov).

Sincerely,



Kelly Sherman  
Chief, Risk Management and Implementation  
Branch III (RMIB III)  
Pesticide Re-Evaluation Division  
Office of Pesticide Programs  
U.S. Environmental Protection Agency

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.

**ACCEPTED**  
11/10/2021  
Under the Federal Insecticide, Fungicide and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No. 19713-498

**ATRAZINE    GROUP 5    HERBICIDE**



***Atrazine 4F***  
**Herbicide**

For season-long weed control in Chemical fallow, Corn, Fallowland, Guava, Lawns, Macadamia nuts, Sorghum, Sugarcane, and Turf.

**ACTIVE INGREDIENTS:**

Atrazine..... 42.2%  
Related compounds..... 0.8%

**OTHER INGREDIENTS:**

TOTAL: ..... 100.0%

This product contains 4 pounds of active ingredients per gallon.

**KEEP OUT OF REACH OF CHILDREN  
CAUTION**

[See FIRST AID Below]

[See Side (Back) Panel for FIRST AID]; [See Page \_\_\_ for FIRST AID]

[See Container Labeling for (FIRST AID and) Complete Directions for Use]

[See (Attached) Booklet (Container Labeling) for Complete Directions for Use]

**[SHAKE WELL BEFORE USING]**

**[Recirculate Contents Before Use]**

EPA Reg. No. 19713-498

EPA Est. No. 19713-XX-X

Net Content: \_\_\_\_\_ Gal. ( \_\_\_\_\_ L)

FIRST AID
<p><b>IF SWALLOWED:</b></p> <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 or convulsing person.</li> </ul>
<p><b>IF ON SKIN OR CLOTHING:</b></p> <ul style="list-style-type: none"> <li>• Take off contaminated clothing.</li> <li>• Rinse skin immediately with plenty of water for 15 to 20 minutes.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
<p><b>IF IN EYES:</b></p> <ul style="list-style-type: none"> <li>• Hold eye open and rinse slowly and gently with water for 15 to 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>
<p><b>IF INHALED:</b></p> <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 mouth-to-mouth.</li> <li>• Call a poison control center or doctor for further treatment advice.</li> </ul>
<p>Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also call CHEMTREC at 800-424-9300 for emergency medical treatment information.</p>
<p><b>NOTE TO PHYSICIAN:</b> 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>

498SP-1020\*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. Avoid breathing spray mist.

### PERSONAL PROTECTIVE EQUIPMENT (PPE)

#### Applicators using spray equipment mounted on their backs

**must wear:** Coveralls over long-sleeved shirt and long pants, chemical-resistant footwear plus socks, and chemical-resistant gloves made of barrier laminate, nitrile rubber  $\geq$  14 mils, neoprene rubber  $\geq$  14 mils, or viton  $\geq$  14 mils.

**Mixers, loaders, all other applicators, flaggers, and other handlers must wear:** Long sleeved shirt and long pants, chemical-resistant gloves made of barrier laminate, nitrile rubber  $\geq$  14 mils, neoprene rubber  $\geq$  14 mils, or viton  $\geq$  14 mils; shoes plus socks; and chemical-resistant apron when mixing/loading, cleaning up spills, cleaning equipment, or otherwise exposed to the concentrate.

See engineering controls for additional requirements.

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

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.

## ENGINEERING CONTROLS

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

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

Pilots must use an enclosed cockpit in a manner that is consistent with the WPS for Agricultural Pesticides [40 CFR 170.240(d)(6)].

Pilots must wear the PPE required on this labeling for applicators, however, they need not wear chemical-resistant gloves when using an enclosed cockpit.

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

When applicators use enclosed cabs in a manner that meets the requirements listed in the 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:** 1) Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. 2) Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. 3) Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

## ENVIRONMENTAL HAZARDS

Atrazine can travel (seep or leach) through soil and can enter groundwater which may be used as drinking water. Atrazine has been found in groundwater. Users are advised not to apply Atrazine to Sand and Loamy sand soils where the water table (groundwater) is close to the surface and where these soils are very permeable, i.e., well-drained. Your local agricultural agencies can provide further information on the type of soil in your area and the location of groundwater.

This product must not be mixed or loaded within 50 feet of intermittent streams and rivers, natural or impounded lakes and reservoirs. This product must 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 points must be planted to crop or seeded with Grass or other suitable crop.

Do not contaminate water when disposing of equipment washwaters. This product must not be mixed/loaded or used within 50 feet of all wells including abandoned wells, drainage wells and sinkholes. 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 spill or equipment leaks, container or equipment rinse or washwater and rainwater 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 wellhead setbacks and operational area containment must be observed.

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.

### **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 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 high crop residue management practices are used. High crop residue management practice is described as a crop management practice where little or no crop residue is removed from the field during and after crop harvest.

### **NON-TARGET ORGANISMS 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.

## **DIRECTIONS FOR USE**

### **RESTRICTED USE PESTICIDE**

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.Atrazinewatershed.info](http://www.Atrazinewatershed.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 Drexel Chemical Company for a refund.

Failure to follow the "DIRECTIONS FOR USE", use precautions and restrictions for use on this label may result in poor weed control, crop injury or illegal residue. Do not apply this product through any type of irrigation system. 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.

## **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.

Users must only apply to fallow land in the following states according to the prescribed rotation pattern in the table below:

<b>Fallow Rotation Pattern</b>	<b>Fallow Use Authorized in these States only</b>
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

### AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard (WPS), 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 (REI). The requirements in this box only apply to uses of this product that are covered by the WPS.

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

**Exception:** If the product is soil-injected or soil-incorporated, the WPS, 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 WPS and that involves contact with anything that has been treated, such as plants, soil or water is: Coveralls, chemical-resistant gloves made of barrier laminate, nitrile rubber  $\geq 14$  mils, neoprene rubber  $\geq 14$  mils, or viton  $\geq 14$  mils; and shoes plus socks.

### NON-AGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to uses of this product that are NOT within the scope of the WPS for agricultural use 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 area until sprays have dried.

### GENERAL INFORMATION

ATRAZINE 4F Herbicide will control most annual Broadleaf and Grass weeds in Corn, Sorghum, Sugarcane and certain other crops as specified on this label. This product may be applied before or after weeds emerge.

In each case where a range of rates is given, the lower rate should be used on Coarse textured soil and soil low in organic matter and the higher rate should be used on Fine textured soil and soil high in organic matter.

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

This product is non-corrosive to equipment and metal surfaces, nonflammable and has low electrical conductivity. Care should be taken to avoid using this product 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.

**Note:** The Seller does not recommend the use of this product in combination with other herbicides or oils except as specifically described on the label or in literature published by the Seller.

FAILURE TO FOLLOW ALL USE PRECAUTIONS AND RESTRICTIONS ON THIS LABEL MAY RESULT IN POOR WEED CONTROL, CROP INJURY OR ILLEGAL RESIDUES.

### USE SITE RESTRICTION

Not for use in the states of Alaska or Hawaii or in the U.S. Territories (American Samoa, Guam, North Mariana Islands, Puerto Rico, U.S. Virgin Islands).

### USE PROHIBITION

Use on Conifers including Christmas tree plantings; Conservation Reserve Program (CRP); Forestry; Roadsides; Timber; Miscanthus and other perennial bioenergy crops is prohibited.

### HERBICIDE RESISTANCE MANAGEMENT

ATRAZINE	GROUP	5	HERBICIDE
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For resistance management, this product is a Group 5 mode of action herbicide. Any weed population may contain or develop plants naturally resistant to this product and other Group 5 mode of action 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.

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 a 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 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 Drexel Chemical Company representatives at (901) 774-4370.

## MANDATORY SPRAY DRIFT MANAGEMENT

### SPRAY DRIFT

#### 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).
- If the wind speed is 10 mph or less, applicators must use one-half swath displacement upwind at the downwind edge of the field. When the wind speed is between 11 to 15 mph, applicators must use three-fourths 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 not exceed 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.
- User must maintain a 150 foot (46 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.

#### 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 mph 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.

#### BOOMLESS GROUND APPLICATIONS:

- Applicators are required to use coarse or coarser droplet size (ASABE S572) for all applications.
- Do not apply when wind speeds exceed 10 mph 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 manufacturer's 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 one-fourth 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 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.

## 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 gallons of spray mixture per acre for all pre-plant incorporated, pre-plant surface, pre-emergence and post-emergence 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.
3. 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 gallon 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 the amount to be applied per acre as follows:

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

### USE RESTRICTIONS:

- Applications using mechanically pressurized handguns to Guava, Macadamia nuts and Sweet Corn is prohibited.
- Applications using backpack sprayers to landscape Turf is restricted to spot treatments only.

**AERIAL APPLICATION:** Use aerial application only where broadcast applications are specified. Apply in a minimum of 1 quart of water for each quart of this product applied per acre. For post-emergence treatments on Corn and Sorghum, apply recommended rate in a minimum of 2 gallons 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.

### THIS PRODUCT IN WATER OR LIQUID FERTILIZER APPLICATIONS

Nitrogen solutions or complete liquid fertilizers may replace all or part of the water as a carrier for pre-emergence and pre-plant applications of this product on Corn and Sorghum. Check the compatibility of this product with liquid fertilizer and/or nitrogen solution as shown below before use. Do not apply in nitrogen solution or complete liquid fertilizer after Corn or Sorghum emerges, or crop injury may occur.

**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 ingredients.

### Check compatibility using this procedure:

1. Add 1 pint of fertilizer to each of 2 one-quart jars with tight lids.
2. To one of the jars, add 0.25 teaspoon or 1.2 milliliters of a compatibility agent approved for this use, such as MIX™, Compex® or Unite® (0.25 teaspoon is equivalent to 2 pints per 100 gallons of 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 ten 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 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 half of the compatibility agent to the fertilizer and the other half of the emulsifiable concentrate or flowable herbicide before addition to the mixture. If incompatibility is still observed, do not use the mixture.

### **THIS PRODUCT PLUS EMULSIFIABLE OIL OR OIL CONCENTRATE**

Adding emulsifiable oil (petroleum-derived, petroleum-derived oil concentrate or single or mixed crop-derived oil concentrate) to post-emergence 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% 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 MIX, Complex or Unite should be used. Any of the above oils contaminated with water or other materials can cause compatibility problems and/or crop injury.

### **ROTATIONAL CROPS (All Uses)**

1. Land treated with this product should not be planted to any crop except Corn or Sorghum until the following year, or injury may occur.
2. If this product is applied after June 10, do not rotate with crops other than Corn or Sorghum the next year, or injury may occur.
3. In the High Plains and Intermountain areas of the West where rainfall is sparse and erratic or where irrigation is required, use this product to control weeds in Corn or Sorghum only when Corn or Sorghum is to follow Corn or Sorghum, or 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, Corn or Sorghum treated with this product should not be followed with Soybeans if the broadcast rate applied was more than 4 pints per acre (or comparable rate in a band), or injury may occur.
5. Injury may occur to Soybeans planted the year following an 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 of this product, or injury may occur

### **THIS PRODUCT APPLIED ALONE—CORN AND GRAIN SORGHUM**

#### **PRE-PLANT SURFACE APPLIED, PRE-PLANT INCORPORATED OR PRE-EMERGENCE (OR POST-EMERGENCE AT 4 PINTS OF THIS PRODUCT PER ACRE WITH OIL)**

**Broadleaf or Grass Weeds Controlled:** Annual morningglory, Barnyardgrass\*\* (Watergrass), Cocklebur\*, Giant foxtail\*, Green foxtail\*\*, Groundcherry, Jimsonweed, Kochia, Lambsquarters, Large (Hairy) crabgrass\*, Mustard, Nightshade, Pigweed, Purslane, Ragweed, Sicklepod\*, Velvetleaf\*\* (Buttonweed), Wild oats, Witchgrass\*\* (*Panicum capillare*) and Yellow foxtail\*\*.

#### **POST-EMERGENCE WITH EMULSIFIABLE OIL OR OIL CONCENTRATE IN WATER (2.4 PINTS OF THIS PRODUCT PER ACRE)**

**Broadleaf Weeds Controlled:** Annual morningglory, Cocklebur, Jimsonweed, Lambsquarters, Mustards, Pigweed, Ragweed, Smartweed, Velvetleaf\* (Buttonweed) and Wild buckwheat.

\*Partial control only.

\*\*Partial control only on Medium and Fine textured soils.

Where there are state/local requirements regarding Atrazine use (including lower maximum rates and/or greater setbacks) which are different from this 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 regulations.

### **CORN**

#### **PRE-PLANT SURFACE APPLIED**

**Broadleaf and Grass Control:** 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 this product shown in "TABLE 1" up to 45 days prior to planting. On Coarse textured soils, do not apply more than two weeks prior to planting. If 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, Paraquat or Glyphosate). Observe directions for use, use precautions and restrictions for use 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.

**PRE-PLANT INCORPORATED**

**Broadleaf and Grass Control:** Broadcast in the Spring after plowing at the rate indicated in "TABLE 1". Application may be made before, during or after final seedbed preparation. Avoid deep incorporation of this product. For best results apply within two weeks prior to planting.

**PRE-EMERGENCE OR AT-PLANTING**

**Broadleaf and Grass Control:** Apply during or shortly after planting, prior to weed emergence, at the rate indicated in "TABLE 1".

**POST-EMERGENCE**

**Broadleaf and Grass Control:** Apply before weeds exceed 1.5 inches in height and before Corn exceeds 12 inches in height at the rate in "TABLE 1".

<b>TABLE 1</b>
<b>FOR CONTROL OF BROADLEAF AND GRASS WEEDS* For All Soil Applications Prior To Crop Emergence</b>
<p><b>On Highly Erodible Soils**</b> If conservation tillage is practiced, leaving at least 30% of the soil covered with plant residues at-planting, apply a maximum of 4 pts.of this product per acre as a single broadcast spray. If the soil coverage with plant residue is less than 30% at-planting, a maximum of 3.2 pts. of this product per acre may be applied.</p>
<p><b>On Soils Not Highly Erodible**</b> Apply a maximum of 4 pts. of this product per acre as a single pre-emergence broadcast spray.</p>
<p>*Broadleaf control (Eastern CO, Western KS, Western NE, NM, OK Panhandle, West TX and Eastern WY): On Sand, Loamy sand, Sandy loam, mild to strongly alkaline soil and all recently leveled soil, apply no more than 2.4 pts. of this product per acre, either pre-plant or pre-emergence. On other soils in these areas, apply rate in this table for Broadleaf and Grass control. **As defined by the Natural Resource Conservation Service</p>

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/more 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.

**FOR POST-EMERGENCE APPLICATION**

If no Atrazine was applied prior to Corn emergence, apply a maximum of 4 pints of this product per acre broadcast. If a post-emergence treatment is required following an earlier herbicide application, the total Atrazine applied may not exceed 2.5 pounds Atrazine active ingredient per acre per calendar year.

**POST-EMERGENCE 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:

<b>Oil Type</b>	<b>Ground Application</b>	<b>Aerial Application</b>
Oil Concentrate (Crop or Petroleum-derived)	1 qt. per acre	0.5 to 1 qt. per acre
Petroleum -derived oil	1 gal. per acre	2 qts. per acre

**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 post-emergence control of those weeds listed under "THIS PRODUCT APPLIED ALONE — CORN AND GRAIN SORGHUM; PRE-PLANT SURFACE-APPLIED, PRE-PLANT INCORPORATED OR PRE-EMERGENCE", broadcast 4 pints of this product per acre 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 post-emergence control of those weeds listed under "THIS PRODUCT APPLIED ALONE — CORN AND GRAIN SORGHUM; POST-EMERGENCE WITH EMULSIFIABLE OIL OR OIL CONCENTRATE IN WATER", broadcast 2.4 pints of this product per acre plus emulsifiable oil or oil concentrate before Lambsquarters and Pigweed 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 Precautions and Restrictions for Applications of This Product Plus Emulsifiable Oil or Oil Concentrate in Water to Corn**

1. Do not use oils in sprays when treating inbred lines or any breeding stock, as injury may occur.

2. Adding other insecticides, herbicides, liquid fertilizers or other materials is not recommended with this product and emulsifiable oil in water because they cause compatibility problems or crop injury.
3. Store and handle emulsifiable oil carefully. Oil contaminated with even a small amount of water may not emulsify properly when added to the tank.
4. Do not use oil in sprays containing this product when Corn is under stress from prolonged cold, wet weather, poor fertility or other factors or when Corn is wet and succulent from recent rainfall, as crop injury may occur.
5. Do not exceed 2.5 pounds of active ingredient (5 pints of this product) per acre per calendar year.
6. Post-emergence application to Corn must be made before Corn exceeds 12 inches in height.

#### **TANK-MIXTURE WITH THIS PRODUCT FOR CORN**

This product may be tank-mixed with these herbicides for control of certain Broadleaf and Grass weeds in Corn:

Alachlor	Metolachlor + Simazine
Alachlor + Glyphosate	Metolachlor + Simazine + Glyphosate
Alachlor + Paraquat	Metolachlor + Simazine + Paraquat
Butylate 6.7E	Paraquat
Glyphosate	Propachlor
Metolachlor	Simazine
Metolachlor + Glyphosate	Simazine + Glyphosate
Metolachlor + Paraquat	Simazine + Paraquat

Use tank-mix directions appearing on the labels of the above herbicides when tank-mixing with this product. Observe all precautions and limitations on labeling of products used in a particular tank mix.

When tank-mixing or sequentially applying Atrazine or products containing Atrazine to Corn, do not exceed an application rate of 2 pounds Atrazine active ingredient per acre for any single application, and the total pounds of Atrazine applied must not exceed 2.5 pounds 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 (lbs. a.i./A) must not exceed the specific seasonal rate limits as noted in the use directions.

#### **THIS PRODUCT PLUS SIMAZINE 4L OR SIMAZINE 90DF**

In addition to the weeds listed under *"THIS PRODUCT APPLIED ALONE — CORN AND GRAIN SORGHUM; PRE-PLANT SURFACE-APPLIED, PRE-PLANT INCORPORATED OR PRE-EMERGENCE"* and *"THIS PRODUCT APPLIED ALONE — CORN AND GRAIN SORGHUM; POST-EMERGENCE WITH EMULSIFIABLE OIL OR OIL CONCENTRATE IN WATER"*, this combination also controls Carpetweed, Crabgrass and Fall panicum.

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.

#### **PRE-PLANT 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 this product and simazine shown in *"TABLE 2"* up to 45 days prior to planting. Refer to *"THIS PRODUCT 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 *"THIS PRODUCT APPLIED ALONE — PRE-PLANT 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.

#### **PRE-PLANT INCORPORATED**

Apply to the soil and incorporate in Spring before, during or after final seedbed preparation. Avoid deep incorporation. For best results, apply within two weeks prior to planting.

#### **PRE-EMERGENCE**

Apply during or shortly after planting, but before crop and weeds emerge.

<b>TABLE 2</b>				
<b>TANK-MIXTURES WITH SIMAZINE 4L OR 90DF ON CORN</b>				
<b>SOIL TEXTURE</b>	<b>BROADCAST RATE PER ACRE*</b>			
	<b>1:1 Ratio*</b>		<b>1:2 Ratio**</b>	
	<b>This Product</b>	<b>Simazine 4 L or 90DF</b>	<b>This Product</b>	<b>Simazine 4L or 90DF</b>
Sand, Loamy sand, Sandy loam	2 pts.	2 pts. of 4L or 1.1 lbs. of 90DF	1.32 pts.	2.6 pts. of 4L or 1.5 lbs. of 90DF
Loam, Silt loam, Silt, Clay loam, Sandy clay loam, Silty clay loam, Sandy clay or Silty clay with low organic matter	2.4 pts.	2.4 pts. of 4L or 1.33 lbs. of 90DF	1.6 pts.	3.2 pts. of 4L or 1.8 lbs. of 90DF
Loam, Silt loam, Silt, Clay loam, Sandy clay loam, Silty clay loam, Sandy clay or Silty clay with medium to high organic matter and Clay (including dark prairie soils of the Corn Belt)	3 pts.	3 pts. of 4L or 1.6 lbs. of 90DF	1.92 pts.	3.84 pts. of 4L or 2.1 lbs. of 90DF
*For control of most weeds.				
**For control of expected heavy infestations of Crabgrass and Fall panicum. Refer to "CORN" sections of this label and to Simazine 4L or Simazine 90DF label for further directions, limitations and precautions.				

### **THIS PRODUCT PLUS SIMAZINE 4L OR SIMAZINE 90DF PLUS PARAQUAT**

For kill of existing vegetation and 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 non-ionic surfactant, such as Surf-Ac® 820. Continue agitation during application. Broadcast 2 to 4 pints of this product plus 1.1 to 2.2 pounds of Simazine 90DF (or 2 to 4 pints of Simazine 4L plus a suitable amount of 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 non-ionic surfactant, such as Surf-Ac 820, 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 Paraquat and simazine labels for further limitations, use precautions and restrictions.

### **THIS PRODUCT PLUS SIMAZINE 4L, ~~80W~~ OR 90DF PLUS GLYPHOSATE**

Use as tank-mixture for pre-emergence and post-emergence 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, use precautions, restrictions and limitations. In the absence of these tank mix instructions on generic labeling, follow the advice given below.

### **USE PRECAUTIONS AND RESTRICTIONS FOR ALL APPLICATIONS TO CORN**

1. To avoid crop injury and illegal residues, do not apply more than 2.5 pounds per acre of active ingredient (5 pints per acre of this product) per calendar year, with a maximum single application of 2.0 pounds per acre (4 pints per acre of this product) and 1.6 lbs. a.i./A (3.2 pts. of this product/A) on highly erodible soils with < 30% soil cover with plant residues.
2. When tank-mixing or sequentially applying Atrazine or products containing Atrazine to Corn, do not exceed an application rate of 2 pounds Atrazine active ingredient per acre for any single application, and the total pounds of Atrazine applied must not exceed 2.5 pounds per acre per year.
3. When tank-mixing or sequentially applying Atrazine or products containing Atrazine to crops other than Corn or Sorghum, the total pounds of Atrazine (lbs. a.i./A) must not exceed the specific seasonal rate limits as noted in the use directions.
4. For best control of Velvetleaf and Cocklebur, the application rate cannot be less than 2 pounds per acre of active ingredient, either alone or in tank mix combinations.
5. 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.
6. For Field corn do not harvest for forage within 60 days of application. For Sweet corn, do not harvest forage within 45 days of application.

### **SORGHUM AND SORGHUM-SUDAN HYBRIDS (Grain and Forage Types)**

#### **PRE-PLANT SURFACE APPLIED**

**Broadleaf and Grass Control:** 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 this product 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 this product 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, 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.

**PRE-PLANT INCORPORATED**

**Broadleaf and Grass Control:** Broadcast in Spring after plowing at rate in "TABLE 3". Apply before, during or after final seedbed preparation. If soil is tilled or worked after application, avoid deep incorporation. For best results, apply within two weeks prior to planting.

**PRE-EMERGENCE 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".

**PRE-EMERGENCE**

**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
<b>PRE-PLANT SURFACE, PRE-PLANT INCORPORATED AND PRE-EMERGENCE APPLICATIONS* (For Broadleaf and Grass Weed Control in Sorghum)</b>
<b>For All Soil Applications Prior to Crop Emergence On Highly Erodible Soils**</b> If conservation tillage is practiced, leaving at least 30% of the soil covered with plant residues at-planting, apply a maximum of 4 pts. of this product per acre as a single broadcast spray. If the soil coverage with plant residue is less than 30% at-planting, a maximum of 3.2 pts. of this product per acre may be applied.
<b>On Soils Not Highly Erodible**</b> Apply a maximum of 4 pts. of this product per acre as a single pre-emergence broadcast spray.
Where there are state/local requirements regarding Atrazine use (including lower maximum rates and/or greater setbacks) which are different from this 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 regulations.
*Do not apply pre-plant in AL, AR, FL, GA, LA, MS, NC, NM, OK, SC, TN or TX. Do not apply pre-emergence in NM, OK or TX, except in Northeast OK and the TX Gulf Coast and Blackland areas. **As defined by the Natural Resource Conservation Service.

**POST-EMERGENCE APPLICATION**

If no Atrazine was applied prior to Sorghum emergence, apply a maximum of 4 pints of this product per acre broadcast. If a post-emergence treatment is required following an earlier herbicide application, the total Atrazine applied may not exceed 2.5 pounds Atrazine active ingredient per acre per calendar year.

**Note:** 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, Corn or Sorghum may be replanted. Do not make a second broadcast application, or injury may occur. If originally applied in a band and Corn or Sorghum 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 pounds of active ingredient per acre of Atrazine per calendar year is not exceeded.

**PRE-EMERGENCE**

**Broadleaf Weed Control in Furrow-Irrigated Bedded Sorghum (AZ and CA only):** For pre-emergence control of Broadleaf weeds, broadcast 1.6 to 2.4 pints of this product per acre after bed preparation, during or after planting, but before Sorghum and weeds emerge and before the first furrow irrigation. Several irrigations should follow the application, making sure that all soil is thoroughly wet.

**Use Precautions and Restrictions for Pre-emergence Applications of This Product to Furrow-Irrigated Bedded Sorghum Grown in AZ and CA**

To avoid possible Sorghum injury, do not use on Sand or Loamy sand soils or on Sorghum planted in the furrow. Additionally, applications made to Sorghum growing on alkali soils or where cuts, fills or erosions have exposed calcareous or alkali subsoils may result in crop injury. In case of crop failure, do not replant Sorghum for 8 months following application. Corn may be planted immediately.

**POST-EMERGENCE**

**Broadleaf and Grass Control:** Apply before weeds exceed 1.5 inches in height at the rate indicated in "TABLE 4". Application must be made to Sorghum before reaching 12 inches in height.

TABLE 4		
POST-EMERGENCE BROADLEAF AND GRASS WEED CONTROL IN SORGHUM		
Soil Texture	Minimum Height of Sorghum At Treatment	Broadcast Rate Per Acre of This Product
Sand or Loamy sand	DO NOT USE	
Sandy loam	See directions for Broadleaf and Weed control below.	
Silt loam to Sandy clay loams	Completely emerged	4 pts.
Olton and Pullman clay soils	At least 6 inches high	4 pts.
Silty clay loams and heavier soils	Completely emerged	4 pts.
*For post-emergence applications, if there has been no previous soil application to the crop, the maximum rate is 4 pts. of this product per acre. If there has been a previous soil application to that crop, do not exceed a total of 5 pts. of this product per acre per calendar year.		

**POST-EMERGENCE**

**Broadleaf Weed Control with This Product Plus Emulsifiable Oil or Oil Concentrate in Water:** Broadcast 2.4 pints of this product per acre for control of 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 to 12 inches in height, but before it reaches 12 inches. In all other areas, apply after Sorghum reaches the 3-leaf stage. Add emulsifiable oil at a rate of 1 gallon per acre for ground applications and 0.5 gallon per acre for aerial applications or add 1 quart per acre of oil concentrate for ground applications. A cultivation may be necessary if all weeds are not controlled or if regrowth of weeds occurs.

For the list of weeds controlled, see "THIS PRODUCT APPLIED ALONE — CORN AND GRAIN SORGHUM; PRE-PLANT SURFACE-APPLIED, PRE-PLANT INCORPORATED OR PRE-EMERGENCE" and "THIS PRODUCT APPLIED ALONE — CORN AND GRAIN SORGHUM; POST-EMERGENCE WITH EMULSIFIABLE OIL OR OIL CONCENTRATE IN WATER".

**Use Precautions and Restrictions for Applications of This Product Plus Emulsifiable Oil or Oil Concentrate in Water to Sorghum—** See "Use Precautions and Restrictions For Applications of This Product Plus Emulsifiable Oil in Water to Corn".

**Broadleaf Weed Control with This Product Plus Surfactant (CO, Western KS, NM, OK, TX and Desert regions of AZ and CA only):** Broadcast 2.4 pints of this product plus 0.75 to 1.5 pints of surfactant per acre after Sorghum reaches 6 inches in height, but before weeds reach 1.5 inches in height. Apply only on Sandy loam and Fine textured soils.

**USE PRECAUTIONS AND RESTRICTIONS FOR ALL APPLICATIONS TO SORGHUM**

1. The maximum application rate for Sorghum is 2.5 pounds of active ingredient (5 pints of this product) per acre per calendar year, with a maximum single application rate of 2.0 lbs. active ingredient (4 pints of this product) and 1.6 lbs. a.i./A (3.2 pts./A) on highly erodible soils with < 30% soil cover with plant residues.
2. When tank-mixing or sequentially applying Atrazine or products containing Atrazine to Sorghum, do not exceed an application rate of 2 pounds Atrazine active ingredient per acre for any single application, and the total pounds of Atrazine applied must not exceed 2.5 lbs. per acre per year.
3. When tank-mixing or sequentially applying Atrazine or products containing Atrazine to crops other than Corn or Sorghum, the total pounds of Atrazine (lbs a.i./A) must not exceed the specific seasonal rate limits as noted in the use directions.
4. Do not apply Atrazine and Propazine containing products to the same Sorghum acre.
5. Do not harvest for forage within 60 days of a pre-emergence application and 45 days of a post-emergent application.
6. For all soil applications prior to crop emergence (except for pre-emergence 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.
7. For post-emergence applications, do not apply to Sand or Loamy sand, or injury may occur.

8. Heavy rains immediately following application tend to result in excessive concentrations of herbicide in seed furrow, resulting in possible crop injury. Applications to furrow-planted Sorghum should not be made until furrows are leveled (plowed-in). Deep planter marks or seed furrows should also be leveled before application.
9. Application made to Sorghum growing under stress caused by minor element deficiency or to Sorghum growing on highly calcareous soils may result in crop injury.
10. Following harvest, plow (moldboard or disk-plow) and thoroughly till the soil in the Fall or Spring to minimize possible injury to rotational Spring-seeded crops, regardless of rate used.
11. Injury may occur if both this herbicide, pre-plant surface, pre-plant incorporated or pre-emergence and an at-planting systemic insecticide applied in-furrow are used.

#### TANK-MIXTURES FOR GRAIN SORGHUM

**Metolachlor:** Use as tank-mixture with metolachlor for control of those weeds listed on the metolachlor label, as well as on this label. Use this tank-mixture only on Sorghum seed treated with Concep® (cyometrinil). Refer to the metolachlor label for all directions, use precautions, restrictions and limitations.

<b>TABLE 5</b>		
<b>THIS PRODUCT + METOLACHLOR - GRAIN SORGHUM*</b>		
<b>SOIL TEXTURE</b>	<b>Broadcast Rates Per Acre</b>	
	<b>Less than 1.5% Organic Matter This Product** + Metolachlor</b>	<b>1.5% Organic Matter Or Greater This Product + Metolachlor</b>
<b>Coarse:</b> Sand, Loamy sand, Sandy loam	DO NOT USE	DO NOT USE
<b>Medium:</b> Loam silt, Silt loam	DO NOT USE	2.35 pts. + 1.5 pts.
<b>Fine:</b> Silty clay loam, Sandy clay loam, Silty clay, Sandy clay, Clay loam, Clay	2.35 pts. + 1.5 pts.	2.9 to 3.25 pts. + 1.75 to 2 pts.
* Do not use in NM, OK or TX except in Northeast OK and the TX Gulf Coast areas. Do not apply pre-plant incorporated in AZ or the Imperial Valley of CA.		
** On highly erodible soils, as defined by the Natural Resource Conservation Service, if conservation tillage is utilized (>30% plant residue), the maximum rate is 4 pts. per acre. If plant residue is <30%, the maximum rate is 3.2 pts. per acre. On soils not highly erodible, the maximum rate is 4 pts. per acre.		

#### Use Precautions and Restrictions:

1. Applications of this product + metolachlor on highly alkaline soils or on eroded areas where calcareous subsoils are exposed may cause Sorghum injury.
2. If Sorghum seed is not properly treated with cyometrinil, this product + metolachlor will severely injure the crop.
3. Under high soil moisture conditions prior to Sorghum emergence, injury may occur following the use of this product + metolachlor. The crop will normally outgrow this effect.
4. Do not use this product + metolachlor on Sorghum grown under dry mulch tillage, or injury may occur.

**Rotational Crops:** Refer to the crop rotation instructions on the metolachlor label for metolachlor + Atrazine tank-mixtures on Corn.

#### WINTER WEED CONTROL IN TX

For post-emergence control of Winter weeds only, such as Annual thistle, Henbit and Seeding dock on Fall bedded land in the Gulf Coast and Blacklands of TX, apply 1.6 to 2 pints of this product per acre post-emergence to the weeds in November or December to land that will be planted to Corn, Forage sorghum or Grain sorghum the following Spring. For best results, add a suitable surfactant such as Surf-Ac 820 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, Forage sorghum or Grain sorghum crop.

**Use Precaution and Restriction:** Do not plant any crops except Corn, Forage sorghum or Grain sorghum the Spring following this treatment or illegal residues may result.

#### CHEMICAL FALLOW — THIS PRODUCT ALONE

**WHEAT - SORGHUM – FALLOW (AR, CO, GA, IL, KS, LA, MS, MO, NE, NM, NC, OK, SD & TX):** This treatment controls annual Broadleaf and Grass weeds following Wheat harvest and in the following Sorghum crop when grown under minimum-tillage. Broadcast 4.5 pints of this product to Wheat stubble immediately following Wheat harvest. On soils in SD with pH greater than 7.5, do not exceed 1.5 pounds active ingredient (3 pints of this product) per acre for any application. For soils with pH less than 7.5 in SD, apply 1 to 2 pounds of active ingredient (2 to 4 pints of this product) per acre. Use the higher rate on Fine textured soils and where heavy weed infestations are expected. Use the lower rate on Coarse textured soils where light weed infestations are expected. Do not apply more than 2 pounds of active ingredient (4 pints of this product) per acre



for any application. For all other locations do not apply more than 2.25 pounds a.i. (4.5 pints of this product) per acre for any application. 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 application of this product. Plant Sorghum into Wheat stubble the following Spring with minimum disturbance of the soil. Use a surface planter or a planter leaving a shallow furrow. If weeds are present at-planting, remove them with a sweep plow or other suitable implement before planting.

For the list of weeds controlled, see *"THIS PRODUCT APPLIED ALONE — CORN AND GRAIN SORGHUM; PRE-PLANT SURFACE-APPLIED, PRE-PLANT INCORPORATED OR PRE-EMERGENCE"* and *"THIS PRODUCT APPLIED ALONE — CORN AND GRAIN SORGHUM; POST-EMERGENCE WITH EMULSIFIABLE OIL OR OIL CONCENTRATE IN WATER"*.

#### **Use Precautions and Restrictions:**

1. Use only on Silt loam or Fine textured soil.
2. Wheat - Sorghum - Fallow cropping sequence must be followed.
3. Do not apply following Sorghum harvest.
4. Only one application is allowed per cycle for all chemical fallow applications.
5. To avoid illegal residues, do not graze or feed forage from treated area to livestock.
6. 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 & WY):** This product controls Cheatgrass (Downy brome, Chess), Kochia, Mustard, 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.

On soils in ND and SD with pH greater than 7.5, do not exceed 1.5 pounds active ingredient (3 pints of this product) per acre for any application. For soils with pH less than 7.5 in ND and SD, apply 1 to 2 pounds of active ingredient (2 to 4 pints of this product) per acre. Use the higher rate on Fine textured soils and where heavy weed infestations are expected. Use the lower rate on Coarse textured soils where light weed infestations are expected. Do not apply more than 2 pounds of active ingredient (4 pints of this product) per acre for any application. For all other locations do not apply more than 2.25 pounds a.i. (4.5 pints of this product) per acre for any application. In the event Grasses are present the following Spring, use a grass herbicide registered for use on Corn.

Follow directions for use, and *"Use Precautions and Restrictions"* in the preceding *"WHEAT - SORGHUM - FALLOW"* section, substituting Corn for references to Sorghum.

Do not apply more than one application per cycle.

**WHEAT - FALLOW - WHEAT (CO, KS, ND, NE, SD & WY):** For pre-emergence 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 to 2 pints of this product 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.

For soils in ND and SD with a pH of 7.5 or greater, do not apply more than 1.5 lbs. active ingredient (3 pints of this product) per acre for any application. For soils in ND and SD with a pH of less than 7.5, do not apply more than 2 lbs. active ingredient (4 pints of this product) per acre for any application. For all other locations, do not apply more than 2.25 lbs. active ingredient (4.5 pints of this product) per acre for any application.

Do not apply more than one application per cycle.

#### **TANK-MIXTURES FOR CHEMICAL FALLOW**

**WHEAT - SORGHUM - FALLOW OR WHEAT - CORN - FALLOW (KS, NE)—This Product Plus Paraquat:** If weeds are present at application, a tank mix with Paraquat may be used. Broadcast 4.5 pints of this product plus a suitable amount of Paraquat in 20 to 60 gallons of water per acre by ground equipment. Add 0.5 to 1 pint of a non-ionic surfactant, such as Surf-Ac 820, per 100 gallons of spray mixture. Add this product 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 label for further directions, use precautions and restrictions and limitations.

Do not apply more than 2.25 lbs. active ingredient (4.5 pints of this product) per acre for any application.  
Do not apply more than one application per cycle.

**WHEAT - FALLOW - WHEAT (CO, KS, ND, NE, SD & WY)—This Product Plus Paraquat:** If weeds are present at application, a tank mix with Paraquat may be used. Broadcast 1 to 2 pints of this product plus a suitable amount of Paraquat

in 20 to 60 gallons of water per acre by ground equipment. Add 0.5 to 1 pint of a non-ionic surfactant, such as Surf-Ac 820, per 100 gallons of spray mixture. Add this product 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. Apply to stubble ground. Treat only once during same fallow period. Refer to Paraquat label for further directions, use precautions and restrictions 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.

For soils in ND and SD with a pH of 7.5 or greater, do not apply more than 1.5 lbs. active ingredient (3 pints of this product) per acre for any application. For soils in ND and SD with a pH of less than 7.5, do not apply more than 2 lbs. active ingredient (4 pints of this product) per acre for any application. For all other locations, do not apply more than 2.25 lbs. active ingredient (4.5 pints of this product) per acre for any application.

Do not apply more than one application per cycle.

#### **Use Precautions and Restrictions:**

1. Only one application is allowed per cycle for all chemical fallow applications.
2. Do not use on sandy soil.
3. Do not treat eroded hillsides, caliche and rocky outcroppings or exposed calcareous subsoil.
4. Do not treat soils of the Rosebud and Canyon Series in Western NE and adjoining counties in CO and WY.
5. Do not treat soils with calcareous surface layers.
6. Avoid spray overlay.
7. Do not graze treated areas within 6 months after application or illegal residues may result.

**Aerial Application:** In order to assure that spray will be controllable within the target area when used according to label directions, make applications at a maximum height of 10 feet, using low drift nozzles at a maximum pressure of 40 psi, and restrict application to periods when wind speed does not exceed 10 mph. To assure that spray will not adversely affect adjacent sensitive non-target plants, apply this product alone by aircraft at a minimum upwind distance of 400 feet from sensitive plants.

### **SUGARCANE**

**General Directions for All States:** For control of many Broadleaf and Grass weeds, including Amaranths, Crabgrass, Fireweed, Flora's paintbrush, Foxtail, Junglerice and Wiregrass, broadcast 4 to 8 pints of this product per acre of this product at time of planting or ratooning, but before Sugarcane emerges.

Broadcast aerially in a minimum of 5 gallons of spray per acre or 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 spray. 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 this product are used alone, apply in a minimum of 2 pints of water for each 2 pints of this product applied per acre.

**Aerial Application:** In order to assure that spray will be controllable within the target area when used according to label directions, make applications at a maximum height of 10 feet using low drift nozzles at a maximum pressure of 40 psi and restrict application to periods when wind speed does not exceed 10 mph. To assure that spray will not adversely affect adjacent sensitive non-target plants, apply this product alone by aircraft at a minimum upwind distance of 400 feet from sensitive plants.

### **FLORIDA**

For control of emerged Pellitory weed (Artillery weed). Apply 0.8 to 1.2 pints of this product per acre in 40 gallons of water per acre as a directed spray by ground equipment prior to "close-in". Add 4 pints of surfactant for each 50 gallons of spray and be sure weed foliage is thoroughly covered.

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 pints of this product per acre pre-emergence. Follow with 1 or 2 applications, as needed, post-emergence to Sugarcane and weeds, at 4 pints per acre. Treat before weeds exceed 1.5 inches in height.
2. Apply 1 to 3 times, as needed, at 4 pints of this product per acre post-emergence to Sugarcane and weeds. Treat before weeds exceed 1.5 inches in height.

## LOUISIANA

For control of Annual weeds during the Summer fallow period, apply 4 pints per acre to weed-free beds immediately after bed formation. Follow normal weed control after planting.

### Use Precautions and Restrictions - To avoid crop injury:

1. Do not apply more than 20 pints of this product per acre to any one crop of Sugarcane.
2. If making 4 pints per acre application during Summer fallow period, do not exceed 16 pints of this product per acre during remainder of the growing season or illegal residues may result.

## TEXAS

Use this product for control of Barnyardgrass, Pigweed, Purslane and Sunflower in plant or Ratoon sugarcane.

Apply 8 pints of this product per acre of this product pre-emergence. Follow with 1 or 2 applications, as needed, at 6 pints of this product per acre post-emergence to Sugarcane and weeds.

For best results, when weeds are emerged, add a non-ionic surfactant, such as Surf-Ac 820, at a concentration of 4 pints of this product per 100 gallons to the spray and apply before weeds exceed 1.5 inches in height.

### USE PRECAUTIONS AND RESTRICTIONS FOR ALL STATES AND USES

1. Do not apply this product after "close-in".
2. Do not apply more than 4 pounds a.i./A (8 pints of this product/A) for any application. Do not apply more than 10 pounds a.i./A (20 pints of this product/A) per crop.
3. Injury to Sugarcane may occur when under moisture stress, when soil is of low absorptive 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 preceding "Use Directions for All States" and are consistent with the "Use Precautions and Restrictions for All States and Uses".

### ST. AUGUSTINEGRASS, CENTIPEDEGRASS AND DORMANT BERMUDAGRASS

This product controls Annual bluegrass, Florida betony, Spurweed and many other weeds in home lawn, ornamental and recreational turf. This product may be applied with any pump-up or compressed air type sprayer or with a hose-end type sprayer. Use of backpack sprayers to landscape Turf is restricted to spot treatments only.

This product will control BOTH emerged weeds and weeds from seeds. Rain or watering within 2 to 3 days of application may decrease the effectiveness on emerged weeds. However, for control of weeds from seeds, rainfall or watering is necessary within 7 to 10 days after treatment.

### WEEDS CONTROLLED OR SUPPRESSED

Annual bluegrass (*Poa annua*), Chickweed (Common and Mouseear), Crabgrass, Cransbill, Cudweed, Dichondra, Florida betony, Henbit, Knotweed, Lespedeza, Moneywort, Mustard, Narrowleaf vetch, Parsleypiert, Sandspur, Smutgrass, Spurge, Spurweed, Swinecress, Woodsorrel and various Annual clovers.

### TIMING OF APPLICATION

The timing of applications to achieve maximum control may vary quite a bit with different weed species. The following application times are suggested for certain problem weeds.

**Spurweed:** Best control of Spurweed can be obtained by applying this product when Spurweed has emerged (December and January).

**Florida betony:** This weed emerges in the Fall, so an application of this product in mid-to-late October followed with a second application in mid-to-late February would give best control.

**Dichondra, Moneywort:** Best control of these weeds can be obtained by applying this product in early April followed with a second application in July.

Applications for Spurweed or Florida betony generally will give control or suppression of the other weeds listed. However, as a general rule, this product will give the best control when applied to young tender weeds or just prior to weed emergence. Do not apply to growing Bermudagrass.

**Note:** Do not apply within the active root zone of vegetables or desirable ornamental plants such as Azaleas, Boxwoods, Camellias, etc. However, treatments using this product should not normally cause injury to medium or large shrubs or trees in the landscape. Do not plant any crop (flower or vegetable gardens) to treated areas for 18 months or injury may result.

### ST. AUGUSTINE GRASS AND CENTIPEDEGRASS

This product may be applied to established St. Augustine grass and Centipedegrass during both the dormant and the growing season. Best results are usually obtained in the early Spring or dormant periods when weeds are small or have not emerged. Follow rates in the "RATE OF APPLICATION" table below.

### DORMANT BERMUDAGRASS

This product may be applied to Bermudagrass during the dormant season only. Applications to Bermudagrass during the growing season will cause injury. Follow rates in the "RATE OF APPLICATION" table below.

#### RATE OF APPLICATION

Determine the total area to be sprayed and base rate of application on the chart below. Avoid overlapping spray pattern while treating. Shake contents before mixing.

Area To Be Treated	Amount Of This Product
500 sq. ft.	0.37 fl. oz. (0.75 tbsp.) (0.012 lb. a.i.)
1,000 sq. ft.	0.75 fl. oz. (1.5 tbsp.) (0.023 lb. a.i.)
3,000 sq. ft.	2.2 fl. oz. (0.07 lb. a.i.)
5,450 sq. ft.	0.25 pt. (4 fl. oz.) (0.125 lb. a.i.)
10,890 sq. ft. (0.25 acre)	0.5 pt. (0.25 lb. a.i.)
1 acre	2 pt. (1 lb. a.i.)

#### Use Restrictions

1. Maximum application rate is 2 pints (1 lb. a.i.) per acre per application.
2. Do not make more than two applications per acre per year.
3. Do not use backpack spray application to landscape Turf except for spot treatments only.

### TURFGRASSES FOR SOD (FL ONLY)

**Centipedegrass, St. Augustine grass and Zoysiagrass:** Broadcast 4 to 8 pints of this product per acre according to soil texture to control those weeds listed under "THIS PRODUCT APPLIED ALONE — CORN AND GRAIN SORGHUM; PRE-PLANT SURFACE-APPLIED, PRE-PLANT INCORPORATED OR PRE-EMERGENCE".

Muck or Peat	8 pts. of this product	Old Beds: within 2 days after lifting sod. New Beds: 3 to 4 days after sprigging or plugging.
Sandy Soil	4 pts. of this product	Old Beds: within 2 days after lifting sod. New Beds: 7 to 10 days after sprigging or plugging.

If weeds regrow, apply an additional 4 pints of this product per acre on Muck or Peat, or 2 pints of this product per acre on Sandy soil.

#### Use Precautions and Restrictions — To avoid illegal residues and crop injury:

1. For Muck or Peat soils, do not apply more than 4 pounds a.i. (8 pints of this product) per acre for any application. Do not apply more than 6 pounds a.i. (12 pints of this product) per year. For sandy soil, do not apply more than 2 pounds a.i. (4 pints of this product) per acre for any application. Do not apply more than 3 pounds a.i. (6 pints of this product) per year. Do not apply more than 2 times per season.
2. Do not apply within 30 days prior to cutting or lifting.
3. Do not apply in combination with surfactants or other spray additives.
4. Use only on Turfgrass reasonably free of infestations of insects, nematodes and diseases.
5. On newly-sprigged Turfgrass, temporary slowing of growth may follow application.

### TURFGRASS FOR FAIRWAYS, LAWNS, SOD PRODUCTION\* AND RESIDENTIAL SITES\*\*

\*For Bermudagrass Sod Production only. For Centipedegrass, St. Augustinegrass and Zoysiagrass sod production, refer to the preceding section "TURFGRASSES FOR SOD".

\*\*Residential sites (including home, daycare facilities, schools, playgrounds, parks, recreational areas and sports fields).

### BERMUDAGRASS, CENTIPEDEGRASS, ST. AUGUSTINEGRASS AND ZOYSIAGRASS

Apply this product 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. This product will control Annual bluegrass even if it is emerged at time of treatment. For control of Summer annual weeds listed in the pre-emergence portion of the "THIS PRODUCT APPLIED ALONE — CORN AND GRAIN SORGHUM; PRE-PLANT SURFACE-APPLIED, PRE-PLANT INCORPORATED OR PRE-EMERGENCE" and "THIS PRODUCT APPLIED ALONE — CORN AND GRAIN SORGHUM; POST-EMERGENCE WITH EMULSIFIABLE OIL OR OIL CONCENTRATE IN WATER" section of this label, also apply this

product in late Winter before weeds emerge. Apply in a minimum of 15 gallons of water per acre or 1 gallon per 1,000 square feet.

Use 2 pints of this product per acre (0.75 fl. oz./1,000 square feet) against the weeds named above. Do not exceed 2 pints of this product per acre per treatment on newly-sprigged Turfgrass or on hybrid Bermudagrass such as Tiflawn, Tifway and Ormond.

For continued Summer annual weed control, apply another 2 pints of this product per acre (0.75 fl. oz. per 1,000 sq. ft.) 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.

On newly-sprigged Turfgrass and hybrid Bermudagrass, temporary slowing of growth and yellowing may occur following application.

#### **Use Precautions and Restrictions**

1. Do not apply more than (2 pints of this product) (1 lb. a.i.) per acre per application. Maximum number of application per acre per year is two.
2. Do not apply more than (4 pints of this product) (2 lbs. a.i.) per acre per year.
3. Do not use backpack spray application to landscape Turf except for spot treatments only.
4. Do not graze or feed turf clippings to animals or illegal residues may result.

**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 may be used in 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 until it has over-Wintered and has a well-developed rhizome system. Do not exceed 4 pints of this product per acre within 12 months of seeding Bermudagrass.

#### **MACADAMIA NUTS**

For pre-emergence control of many Broadleaf and Grass weeds, including Crabgrass, Fireweed, Flora's paintbrush, Foxtail, Spanishneedles and Wiregrass, broadcast 4 to 8 pints of this product per acre before harvest and before weeds emerge. Repeat as necessary but do not exceed 16 pints of this product (8 lbs. a.i.) per are per year.

#### **Use Restrictions**

1. Application using mechanically pressurized handguns to Macadamia nuts is prohibited.
2. Do not apply more than 4 pounds active ingredient (8 pts. of this product) per acre for any application.
3. Do not apply more than 8 pounds active ingredient (16 pts. of this product) per acre per year.
4. Do not spray when Nuts are on the ground during harvest period.
5. Do not apply by air.

#### **GUAVA**

Use only on established plantings which are at least 18 months old. Apply as a directed spray at 4 to 8 pints of this product per acre of this product in 20 to 50 gallons of spray mix pre-emergence or early post-emergence to weeds. When applying post-emergence, the use of a surfactant and greater 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, Sowthistle and Spanishneedles.

#### **Use Precautions and Restrictions**

1. Application using mechanically pressurized handguns to Guava is prohibited.
2. Do not allow spray to contact foliage or fruit.
3. Do not apply more frequently than at 4-month intervals.
4. Do not apply more than 4 pounds a.i.(8 pints of this product) per acre for any single application.
5. Do not apply more than 8 pounds a.i. (16 pints of this product) per year.

## STORAGE AND DISPOSAL

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

**PESTICIDE STORAGE:** Store in a cool, dry location. Avoid storage at high temperatures. Keep container tightly sealed. Avoid contamination with acids or alkalis. Do not stack more than 2 pallets high to prevent crushing. Keep containers away from any source of puncture. Store in original container only.

Pesticides should be separated during storage to prevent cross-contamination of other pesticides, fertilizer, food and feed. Storage area should preferably be locked to prevent admittance by unauthorized or unknowledgeable persons. 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 allow to contaminate water supplies.
5. Dispose of according to instructions below.

**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 (rigid material; ≤ 5 gallons):** Nonrefillable container. Do not reuse or refill this container. Offer for recycling, if available. Clean container promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container one-fourth full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Dispose of empty container in a sanitary landfill or by incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

**Nonrefillable Container (rigid material; > 5 gallons up to < 250 gallons):** Nonrefillable container. Do not reuse or refill this container. Offer for recycling, if available. Clean container promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container one-fourth 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 application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Dispose of empty container in a sanitary landfill or by incineration, or if allowed by State and local authorities, by burning. If burned, stay out of smoke.

**Refillable Container (≥ 250 gallons & Bulk):** 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 refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10% 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.

## WARRANTY—CONDITIONS OF SALE

OUR DIRECTIONS FOR USE of this product are based upon tests believed reliable. Follow directions carefully. Timing and method of application, weather and crop conditions, mixtures with other chemicals not specifically directed and other influencing factors in the use of this product are beyond the control of the Seller. To the extent consistent with applicable law, Buyer assumes all risks of use, storage and handling of this material not in strict accordance with directions given herewith. To the extent consistent with applicable law, in no case shall the Manufacturer or the Seller be liable for consequential, special or indirect damages resulting from the use or handling of this product when such use and/or handling is not in strict accordance with directions given herewith. The foregoing is a condition of sale by the Seller and is accepted as such by the Buyer.

Manufactured By:



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## **[EDITORIAL NOTES]**

The following unit of measures found in the body may be formatted in the following manner:

- Pounds – lb.
- Pounds active ingredient – lb. a.i.
- Per acre - /A
- Pints – pt.
- Gallons – gal.
- Fluid ounces – fl. oz.
- Milliliters – ml
- Square feet – sq. ft.