EPA Reg. Number.

2749-485 Term of Issuance

Unconditional Name of Pesticide Product:

Aceto Atrazine 90

Date of Issuance:

Office of Pesticide Programs Registration Division (7505P) 1206 Pennsylvania Ave., N.W. Washington, D.C. 20460

NOTICE OF PESTICIDE:

\_\_\_ Registration X Reregistration

(under FIFRA, as amended)

Name and Address of Redistrant (include ZIF Code):

Aceto Agricultural Chemicals Corporation One Hollow Lane, Suite 201

Lake Success, NY 11042-1215

Note: Changes in labeling differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Registration Division prior to use of the label in commerce. In any correspondence on this product always refer to the above EPA registration number.

On the basis of information furnished by the registrant, the above named pesticide is hereby registered/reregistered under the Federal Insecticide, Fungicide and Rodenticide Act.

Redistration is in no wa, to be construed as an endorsement or recommendation of this product by the Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be Construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.

This product is reregistered in accordance with FIFRA section 4(g)(2)(C) provided you agree in writing to:

- 1. Change the Hazards to Humans and Domestic Animals statement to "Harmful if swallowed".
- 2. Per the Chemistry Review, the Active Ingredients section must be change to "Atrazine 88.2%" and "Related Compounds 1.8%".
- 3. Under Chemical Fallow Uses Change "Do not apply more than one application per cycle" to "Do not apply more than one application per year.". This modification applies to all uses on page 10 and 11.
- 4. The underlined text must be added to the label under the heading "Application Procedures" on page 5; "Apply a maximum of 2.0 lbs ai/A as a single preemergence application on soils that are not highly erodible or on highly erodible soils if at least 30% of the soil is covered with plant residue.".
- 5. The label must be changed so that the PHI for preemergent sorghum forage is 60 days and the PHI for postemergent sorghum is 45 days.
- 6. For sugarcane change "Do not apply more than 10 lbs Al per crop" to "Do not apply more

than 10 lbs Al per acre per year.".		
7. To the Notice section change "In no case" to "To the extent consistent with applicable law, in no case" and "All such risks" to "To the extent consistent with applicable law, all such risk".		
Signature of Approving Official		
$\sim$ $\sim$ $\sim$	Date:	
Jim Tompkins, Product Manager (25) Herbicide Branch, Registration Division (7505P)	4-16-07	

EPA Form 8570-6

You will submit one copy of your final printed labeling before you release the product for shipment. If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6(e). If you have any questions please call Erik Kraft at 703-308-9358.

# RESTRICTED USE PESTICIDE

DUE TO GROUND AND SURFACE WATER CONCERNS. FOR RETAIL SALE TO AN USE ONLY BY CERTIFIED APPLICATORS OR PERSONS UNDER THEIR DIRECT SUPERVISION, AND ONLY FOR THOSE USES COVERED BY THE CERTIFIED APPLICATOR'S CERTIFICATION.

# ACETO ATRAZINE 90

Water dispersible granular herbicide for season-long weed control in corn, sorghum, and certain other crops.

#### **ACTIVE INGREDIENTS:**

Atrazine (2-chloro-4-ethylamino-6-isopropylamino-s-triazin	ne)85.5%
Related Compounds:	
INERT INGREDIENT:	
	TOTAL 100.0%

#### KEEP OUT OF REACH OF CHILDREN

# **CAUTION**

# SEE SIDE PANEL FOR ADDITIONAL PRECAUTIONARY STATEMENTS

	FIRST AID
If swallowed	<ul> <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 the poison control center or doctor.</li> <li>Do not give anything by mouth to an unconscious person.</li> </ul>
If on skin or clothing	<ul> <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>
If in eyes	<ul> <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>
If inhaled	<ul> <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, if possible.</li> <li>Call a poison control center or doctor for further treatment advice.</li> </ul>
	container or label with you when calling a poison control center or doctor, or going for treatment.
	n: There is no specific antidote for atrazine If this product is ingested, induce emesis or lavaga stomach, your of activated charcoal may be considered.

#### **NET WEIGHT 25 POUNDS**

EPA REG. NO. 2749-485

EPA EST. NO. 9779-AR-13

Manufactured For: Aceto Agricultural Chemicals Corporation Lake Success, NY 11042 Phone: 516-627-6000

Page 1 of 13

Under the Federal Insecticide, Fungicide, and Rodenticide Act as amended, for the pesticide registered under EPA Rug. No.

ACCEPTED

with COMMENTS

in EPA Letter Deted

2749-485

Atrazine 90 EPA Reg. No. 2749-485 REV. 11/24/04

# PRECAUTIONARY STATEMENTS

#### HAZARDS TO HUMANS & DOMESTIC ANIMALS

# **CAUTION**

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

# PERSONAL PROTECTIVE EQUIPMENT (PPE)

Some materials that are chemical-resistant to this product are Barrier Laminate, Neoprene Rubber >14 mils and Polyethylene. If you want more options, follow the instructions for category A on the EPA chemical-resistance category selection chart.

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

Coveralls over long sleeved shirt and long pants,

Chemical-resistant gloves, such as Barrier Laminate, Neoprene Rubber >14 mils and Polyethylene,

Chemical resistant footwear plus socks,

Chemical-resistant apron, and

A NIOSH-approved dust/mist filtering respirator with any N, R, P or HE filter or a NIOSH-approved dust/mist filtering respirator with approval number prefix TC-21C).

Applicators and all other handlers exposed to the dilute must wear:

Long sleeved shirt and long pants,

Shoes plus socks, and

Chemical-resistant gloves, such as Barrier Laminate, Neoprene Rubber >14 mils and Polyethylene,

Aerial application is prohibited.

See engineering controls for additional requirements.

#### **User Safety Requirements:**

Follow manufacturer's instructions for cleaning and maintaining PPE—If no such instructions for washables, 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 products concentrate. Do not reuse them.

#### Engineering controls:

When applicators use enclosed cabs in a manner that meets the requirements listed in the Worker Protection Stundard (WPS) for agricultural pesticides (40 CFR 170,240(d)(5)], the handler PPE requirements may be reduced or modified as specified in the WPS.

#### **USER SAFETY RECOMMENDATIONS**

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- · Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

#### ENVIRONMENTAL HAZARDS

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

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

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

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

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

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

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

#### DIRECTIONS FOR USE

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling. This product may not be used on any pests not named on the label.

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

Where there are state local requirements regarding atrazine use (including lower maximum rates and/or higher set-backs), which are different from the label, the more restrictive/protective requirements apply.

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.

# 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.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is:

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

# NON-AGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries, or greenhouses.

Do not enter or allow others to enter until sprays have dried

# STORAGE AND DISPOSAL

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

**PESTICIDE STORAGE:** Store in safe manner Store in original container only. Store in cool, dry place. Reduce stacking height where local conditions, such as humidity or pallet overhang, can affect package strength Personnel should use clothing and equipment consistent with good pesticide handling.

**PESTICIDE DISPOSAL:** Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

**CONTAINER DISPOSAL: Plastic or Paper Bag:** Completely empty bag into application equipment Then dispose of empty bag in a sanitary landfill or by incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

Fiberboard Box or Drum: Completely empty liner by shaking and tapping sides and bottom to loosen clinging particles Empty residue into application equipment. Then dispose of liner in a sanitary landfill or by incineration if allowed by State and local authorities. If box or drum is contaminated and cannot be reused, dispose of in the same manner.

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

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

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

Posternergence application to com and sorghum must be made before com and sorghum reaches 12 inches in height.

#### GENERAL INFORMATION

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

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.

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

This product is non-corrosive to equipment and metal surfaces, non-flammable, and has low electrical conductivity. Avoid using where adjacent desirable trees, shrubs, or plants might be injured.

Where there are state/local requirements regarding Atrazine use (including lower maximum rates and/ or higher set-backs), which are different from the label, the more restrictive/protective requirements apply.

NOTE: ACETO does not recommend applications in combination with other herbicides or oils except as specifically described on the label

## APPLICATION PROCEDURES

For soil applications prior to corn and sorghum emergence (i.e. early preplant incorporated, preplant surface, at planting or preemergence) the following applies:

- Apply a maximum of 1.6 lbs. active ingredient per acre as a single preemergent broadcast application on highly
  erodible soils (as defined by the Natural Resource Conservation Service) if less then 30% of the soil surface is
  covered with plant residues at planting; or 2.0 lbs. active ingredient per acre if only applied post-emergent; or
- Apply a maximum of 2 lbs. active ingredient per acre as a single preemergent broadcast application on soils that are highly erodible or on highly erodible soils (as defined by the Natural Resource Conservation Service) if practicing conservation tillage and at least 30% of the soil surface is covered with plant residues at planting.

For postemergence applications to corn and sorghum, if there has been no previous soil application to that crop, the maximum rate is 2 lbs. active ingredient per acre. If there has been a previous soil application to that crop, do not exceed a total of 2.5 lbs. active ingredient per acre per calendar year.

### **Ground Application**

For uniform distribution use fan-type nozzles. Screens in nozzles and in suction and in-line strainers should be no finer than 50-mesh. Use a pump with capacity to:

- 1) maintain 35-40 psi. at the nozzles, and
- 2) provide sufficient agitation in the tank to keep the mixture in suspension Unless otherwise specified, use a minimum of 10 gallons of spray mixture per acre for all preplant, preemergence, and postemergence applications (with or without oil or surfactant)

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

<u>band width in inches</u> x broadcast rate = amount needed row width in inches per acre = amount needed

For repeat band applications in the event of a crop failure, do not exceed the maximum application rate of 2.5 lbs. active ingredient per acre per calendar year.

#### Application in Water

Mixing procedure: (1) Be sure sprayer is clean and not contaminated with 2,4-D, residual oil, or other materials. (2) Fill tank half to two-thirds full with clean water. (3) Start agitation. (4) Pour this product directly from bag into tank. Let it wet and settle into the water. (5) Finish filling tank with water. Continue agitation during mixing and application.

#### Application in Liquid Fertilizer

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

Compatibility Test: Since liquid fertilizers can vary, even within the same analysis, always check compatibility with herbicide(s) each time before use. Be especially careful when using complete suspension or fluid fertilizers, as serious compatibility problems are more likely to occur. Commercial application equipment may improve compatibility in some instances. The following test assumes a spray volume of 25 gals./A. For other spray volumes, make appropriate changes in the ingredients. Check compatibility using this procedure:

- 1. Add 1 pt. of fertilizer to each of 2 one-qt. jars with tight lids.
- 2. To one of the jars, add 1/4 tsp. or 1.2 milliliters of a compatibility agent approved for this use, such as Compex® or Unite® (1/4 tsp. is equivalent to 2 pts./100 gals. 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 1/2 of the compatibility agent to the fertilizer and the other 1/2 to the emulsifiable concentrate or flowable herbicide before addition to the mixture. If incompatibility is still observed, do not use the mixture.

## Application in Water Plus Emulsifiable Oil

Adding oil to postemergence water-based sprays on corn and sorghum may provide quicker kill of weeds. However, under certain conditions the use of oil may seriously injure the crop. To minimize this possibility, observe the following directions.

Use a crop oil designated for use with this product containing 1-2% emulsifier. Oils contaminated with water or other materials can cause compatibility problems and/or crop injury.

#### Mixing procedure:

- 1) Be sure sprayer is clean and not contaminated with 2,4-D or other materials as crop injury or sprayer clogging may result.
- 2) Fill tank half to two-thirds full with clean water.
- 3) Start agitation.
- 4) Pour this product directly from bag into tank. Let it wet and settle into the water.
- 5) Add emulsifiable oil after this product and water are mixed thoroughly.

Page 6 01 13

- 6) Finish filling tank with water.
- 7) Empty the tank as completely as possible before re-filling to prevent a buildup of oil in the tank. Keep the agitation system in operations to avoid separation of the oil from the water.
- 8) If an oil film starts to build up in the tank, drain it and clean out with a strong detergent solution or solvent.
- 9) Clean the sprayer thoroughly immediately after use by flushing the system with water containing a detergent

#### **CORN**

USE LIMITATIONS: For preplant surface treatments, use on medium or fine-textured soils with reduced tillage systems only in Colorado, Iowa, Illinois, Indiana, Kansas, Kentucky, Minnesota, Missouri, Montana, North Dakota, Nebraska, South Dakota, Wisconsin, and Wyorming, up to 45 days preplanting; on coarse textured soils, do not apply more than 2 weeks prior to planting.

Apply either before planting, at planting or after planting at the rate indicated in Table 1.

For preplant and preemergence applications, nitrogen solutions or complete liquid fertilizers may replace all or part of the water as a carrier. Do not apply after corn has emerged as there is danger of liquid fertilizer causing crop injury.

PREPLANT: Broadcast in the spring after plowing at the rate indicated in Table 1A.

Apply before, during or after final seedbed preparation. If soil is tilled or worked after application, avoid deep incorporation. Best results have been obtained when applied within two weeks prior to planting.

PREEMERGENCE: Apply during or shortly after planting prior to weed emergence at the rate indicated in Table 1 A.

**POSTEMERGENCE:** Apply before weeds exceed 1 1/2 inches in height and before corn is over 12 inches tall, at the rate indicated in Table 1B.

When using nitrogen solutions, direct the spray to avoid corn foliage injury. Maintain agitation in spray tank during application.

TABLE 1

A. FOR ALL SOIL APPLICATIONS PRIOR TO CORN EMERGENCE
(including early preplant, preplant incorporated, preplant surface, at planting or preemergence)

Soil Erodibility Classification*	Plant Residue Amount	Maximum Rate Per Acre Atrazine 901
Highly erodible	30% or more (conservation tillage program)	2.2 lbs.
	Less than 30% (conventional tillage program)	1.7 lbs.
Not highly erodible	No limit	2.2 lbs.

<sup>\*</sup>As defined by the Natural Resource Conservation Service

#### B. FOR CORN POSTEMERGENCE APPLICATION

Previous Soil Application Of Atrazine To Crop	Total Maximum Rate Per Acre Atrazine 90 Per Calendar Year
No	2.2 lbs. postemergence
Yes	2.7 lbs. combined from soil and postemergence applications

Postemergence applications to corn must be made before corn exceeds 12 inches in height.

<sup>1</sup>For Preplant or Preemergence Applications in Western KS, Western NE, Eastern CO, Eastern WY, NM, West TX, and the Pan Handle of OK. On sands, loamy sands, sandy loams, mild to strongly alkaline soils and all recently leveled soils, apply 1.3 lbs. per acre of this product for broadleaf weed control Broadleaf weeds such as pigweed, lambsquarters, nightshade, purslane and kochia will be controlled. On other soil types in the areas above, make

applications at the rate shown in Table 1 for broadleaf and grass control.

Postemergence with emulsifiable oil or oil concentrate in water.

IMPORTANT: Be sure to read precautions under "Application in water plus emulsifiable oil or oil concentrate."

BROADLEAF AND GRASS CONTROL: Broadcast 2.2 lbs. per acre of this product after weed emergence, but before weeds reach 1½ inches in height and before corn is over 12 inches tall. Add emulsifiable oil at rate of 1 gal. per acre for ground applications. Add oil concentrate at rate of 1 qt. per acre for ground applications.

BROADLEAF CONTROL. Broadcast 1.3 lbs. per acre of this product for control of broadleaf weeds, such as annual morningglory, cocklebur, lambsquarters, mustard, pigweed, ragweed smartweed, and wild buckwheat. Add emulsifiable oil at rate of 1 gal. per acre for ground applications. Add oil concentrate at rate of 1 qt. per acre for ground applications. Apply before pigweed and lambsquarters reach 6 inches in height, before all other weeds reach 4 inches in height and before corn is over 12 inches tall. A cultivation may be necessary if all weeds are not controlled or if weeds regrow.

#### PRECAUTIONS FOR ALL APPLICATIONS TO CORN

- 1) Do not apply more than 2.5 lbs. active ingredient per acre to corn in any one year and do not apply more than 2.0 lbs. active ingredient per acre for any single application.
- 2) Following harvest of a treated crop, plow (moldboard or disk-plow) and thoroughly till the soil in the fall or spring to minimize possible injury to rotational spring-seeded crops, regardless of the rate used
- 3) Do not graze treated area or feed treated forage to livestock for 45 days following application in sweet corn, or 60 days following application in field corn.
- 4) For postemergence applications plus emulsifiable oil, see additional precautions under that section of this label.

# SORGHUM AND SORGHUM-SUDAN HYBRIDS (GRAIN AND FORAGE TYPES):

USE LIMITATIONS: A 60-day pregrazing (PGI) or preharvest (PHI) interval for forage is in effect. For preplant surface treatments, use on medium or fine textured soils with reduced tillage systems only in Colorado, Iowa, Illinois, Indiana, Kansas, Kentucky, Minnesota, Missouri. Montana, North Dakota, Nebraska, South Dakota, Wisconsin and Wyoming, up to 45 days preplanting; on coarse textured soils, do not apply more than 2 weeks prior to planting.

Do not apply preplant surface or incorporated in Alabama, Arkansas, Florida, Georgia, Louisiana, Mississippi, North Carolina, New Mexico, Oklahoma, South Carolina, Tennessee, or Texas.

Do not apply preemergence in New Mexico, Oklahoma or Texas except in northeast Oklahoma, the Texas Gulf Coast and Blacklands areas.

ATRAZINE 90 may be applied either before planting, at planting or after planting as indicated below. Use only on medium and fine textured soils having a minimum of 1% organic matter, except as separately recommended for furrow-irrigated bedded sorghum grown in Arizona and California. Postemergence applications to sorghum must be made before sorghum exceeds 12 inches in height.

#### Preplant (Broadleaf and Grass Control):

Broadcast in the spring after plowing at the rate indicated in Table 2. Application may be made before, during or after final seedbed preparation. If soil is tilled or worked after application, avoid deep incorporation of ATRAZINE 90. Best results have been obtained when ATRAZINE 90 is applied within two weeks prior to planting.

#### Preemergence (Broadleaf and Grass Control):

Apply during or shortly after planting, but prior to weed or crop emergence at the rate indicated in Table 3.

# TABLE 2 FOR ALL SOIL APPLICATIONS PRIOR TO SORGHUM EMERGENCE

(including early preplant, preplant incorporated, preplant surface, at planting or reemergence)			
Soil Erodibility Classification*	Plant Residue Amount	Maximum Rate Per Acre Atrazine 90'	
Highly erodible	30% or more (conservation tillage program)	2.2 lbs.	
	Less than 30% (conventional tillage program)	1.7 lbs.	
Not highly erodible	No limit	2.2 lbs.	

The total atrazine applied to sorghum must not exceed 2.5 lbs. active ingredient per calendar year.

'ATRAZINE 90 should not be applied preplant to sorghum grown in NM, OK, TX, Western KS, Eastern CO, AR, LA, TN, MS, AL, GA, FL, SC, and NC, or preemergence to sorghum grown in NM, TX, OK, Western KS, Eastern CO, except in Northeastern OK and the Texas Gulf Coast.

In case of planting failures, sorghum can be replanted into soil previously treated with ATRAZINE 90. Do not make a second broadcast application or injury may occur.

If ATRAZINE 90 is applied in a band and sorghum is replanted in the untreated row middles, ATRAZINE 4L may be applied in a band to the second planting provided the maximum application rate of 2.5 lbs. active ingredient per acre per calendar year is not exceeded.

Preemergence Broadleaf Weed Control in Furrow Irrigated Bedded Sorghum (Arizona and California only): For preemergence control of broadleaf weeds such as ground cherry, lambsquarters, morningglory, mustard, pigweed, and purslane, broadcast 0.9 to 1.3 lbs. per acre of this product. Use the lower rate on coarse-textured soils and soils low in organic matter and use the high rate on fine-textured soils and soils high in organic matter. Make application after bed preparation, during or after planting, but before sorghum and weeds have emerged and before the first furrow irrigation. Several regular irrigations should follow the application, making sure that all soil is thoroughly wet.

Precautions for Preemergence Applications for ATRAZINE 90 to Furrow Irrigated Bedded Sorghum Grown in Arizona and California: To avoid possible sorghum injury, do not use on sand or loamy sand soils or on sorghum planted in the furrow. Additionally, applications made to sorghum growing on alkali soils or where cuts, fills or erosions have exposed calcareous or alkali subsoils, may result in crop injury. In case of crop failure, do not replant sorghum for eight months following application. Corn may be planted immediately.

#### Postemergence Broadleaf and Grass Weed Control:

Apply before weeds exceed 1 1/2 inches in height at the rate indicated in Table 3. Sorghum should be completely emerged. Applications may be made up to crop height of 12 inches.

TABLE 3
FOR SORGHUM POSTEMERGENCE APPLICATION

OR BORGHOW TOD BUILDING THE PROPERTY OF		
Previous Soil Application Of Atrazine To Crop	Total Maximum Rate Per Acre Atrazine 90 Per Calendar Year	
No	2.2 lbs. postemergence	
Yes	2.7 lbs. combined from soil and postemergence applications	

## Postemergence Broadleaf Weed Control with ATRAZINE 90 plus Emulsifiable Oil in Water:

Broadcast 1.3 lbs. per acre of this product for control of broadleaf weeds such as annual morningglory, cocklebur, lambsquarters, mustard, pigweed, ragweed, smartweed and wild buckwheat. Application should be made before pigweed and lambsquarters reach six inches in height, before all other weeds reach four inches in height and before

<sup>\*</sup>As defined by the Natural Resource Conservation Service

sorghum exceeds 12 inches tall. In TX, NM, OK, Western KS, CO and the desert regions of CA and AZ, apply when sorghum is about 6-10 inches in height, but before it exceeds 12 inches tall. In all other areas, apply after sorghum reaches the three-leaf stage and before sorghum exceeds 12 inches tall. Add emulsifiable oil at the rate of 1 gallon per acre for ground applications. A cultivation may be necessary if all weeds are not controlled or if regrowth of weeds occur.

IMPORTANT: Be sure to read precautions under "Application in water plus emulsifiable oil or oil concentrate."

Postemergence Broadleaf Weed Control with ATRAZINE 90 plus Surfactant in OK, NM, TX, Western KS, CO and Desert regions of AZ and CA only:

Broadcast 1.3 lbs. of this product plus 3/4 to 1 1/2 pts. of surfactant per acre when sorghum is 6 to 12 inches in height, but before weeds reach 1½ inches in height. Apply only on sandy loam and finer textured soils.

# PRECAUTIONS FOR ALL APPLICATIONS TO SORGHUM

- 1) Heavy rains immediately following application tend to result in excessive concentrations of herbicide in seed furrow, resulting in possible crop injury. Applications to furrow-planted sorghum should not be made until furrows are leveled (plow-in). Deep planter marks or seed furrows should also be leveled before application.
- 2) 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.
- 3) Do not graze or feed forage from treated areas for 45 days following application on preemergent sorghum, or 60 days following application on postemergent sorghum.
- 4) Following harvest of a treated crop, plow (moldboard or disk-plow) and thoroughly till the soil in the fall or spring to minimize possible injury to rotational spring-seeded crops, regardless of rate used
- 5) For applications to furrow-irrigated bedded sorghum in Arizona and California and for postemergence applications plus emulsifiable oil, see additional precautions under these sections of this label
- 6) Do not apply more than 2.5 lbs. active ingredient per acre per calendar year and do not apply more than 2.0 lbs. active ingredient per acre for any single application.
- 7) 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.
- 8) For postemergence applications, do not apply to sand or loamy sand, or injury may occur.

# SORGHUM POSTEMERGENCE WINTER WEED CONTROL IN TEXAS

For use on fall bedded land and in the Gulf Coast and Blacklands of Texas. Broadcast 0.9 to 1.1 lbs. per acre of Atrazine 90 postemergence for control of winter weeds only, such as henbit, seedling dock and annual thistle on land that will be planted to corn, grain sorghum, or forage sorghum the following spring.

For best results, add a suitable surfactant such as X-77 or ACTIVATOR 90, at a rate of 0.5% of spray volume, an emulsifiable oil at a rate of 1.0% of spray volume, or an oil concentrate at rate of 1 qt. per acre. Normal weed control programs may be used in the following corn, grain sorghum, or forage sorghum crop.

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

#### CHEMICAL FALLOW

USE LIMITATIONS: Wheat-sorghum-fallow cropping sequence must be followed.

Do not apply following sorghum harvest. An 18-month plant-back restriction is specified for all crops other than those on this label. Grazing or feeding of forage from treated areas are prohibited.

For soils in North and South Dakota with a pH of 7.5 or greater: Do not apply more than 1.5 lbs. active ingredient per acre for any application. Do not apply more than one application per cycle.

For soils in North and South Dakota with a pH of less than 7.5: Do not apply more than 2.0 lbs. active ingredient per acre for any application. Do not apply more than one application per cycle.

For all other locations: Do not apply more than 2.25 lbs. active ingredient per acre for any application. Do not apply more than

one application per cycle.

#### WHEAT-SORGHUM-FALLOW

This treatment controls\* annual broadleaf and grass weeds following wheat harvest and in the following sorghum crop when grown under minimum tillage

Apply 2.5 lbs. per acre of this product to wheat stubble immediately following wheat harvest. If weeds are present, remove them with a sweep plow or other suitable implement after application. Plant sorghum into wheat stubble the following spring with minimum disturbance of the soil. Use a surface planter or a planter leaving a shallow furrow. If weeds are present at planting, remove them with a sweep plow or other suitable implement before planting

Precautions: Use only on silt loam or finer textured soil.

(\*Local resistance may result in suppression only or lack of control of some weeds. Refer to IMPORTANT NOTE within GENERAL SECTION of this label.)

#### WHEAT-CORN-FALLOW (KS, NE)

This treatment controls cheatgrass (downy brome, chess), kochia\*, mustards, pigweed\*, Russian thistle, wild lettuce, wild sunflower, and volunteer wheat following wheat harvest. Control may extend into the following corn crop when grown under minimum tillage.

Apply 2.5 lbs. per acre of this product to wheat stubble immediately following wheat harvest. If weeds are present, remove them with a sweep plow or other suitable implement after application. Plant corn into wheat stubble the following spring with minimum disturbance of the soil. Use 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,

PRECAUTIONS: Use only on silt loam or finer textured soil.

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

#### WHEAT-FALLOW-WHEAT (CO, KS, MT, NE, ND, SD, and WY)

This treatment controls cheatgrass (downy brome, chess), common lambsquarters\*, field pennycress, kochia\*, mustard, Russian thistle, wild lettuce, and suppresses volunteer wheat during fallow period of a wheat-fallow-wheat rotation. Apply 0.5 to 1.1 lbs. per acre of this product. Use higher rate to control wild sunflower and pigweed\*. Apply to stubble ground.

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

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

#### **SUGARCANE**

USE LIMITATIONS: Treatments may be applied in a minimum of 20 gal/A of water by ground.

Do not apply by air.

A reasonable interval between lay-by and harvest would be 120-150 days, providing a built-in PHI.

In Florida and Texas, 0.5-1 gal of surfactant/100 gal of spray may be used.

In Louisiana, an application of 2 lbs, active ingredient per acre may be used to control annual weeks during summer fallow period; after-planting applications may not exceed 8 lbs, active ingredient per acre.

Do not apply more than 4.0 lbs. active ingredient per acre for any application.

Do not apply more than 10.0 lbs. active ingredient per acre per crop.

To control many broadleaf and grass weeds, such as amaranths\*, crabgrass, fireweed, Flora's paintbrush, foxtails\*, junglerice\*, and wiregrass, apply 2.2 to 4.4 lbs. per acre of this product at the time of planting or rationing, but before emergence of sugarcane. Broadcast band by ground equipment in a minimum of 20 gallons of spray per acre, unless otherwise indicated. One additional application may be made over sugarcane as it emerges, and two additional applications may be made interline after emergence as directed sprays.

Where needed, repeat treatments may be applied broadcast, band, or interline as suggested with the final application being made prior to close-in. Do not exceed the rate of ATRAZINE 90 recommended for any one crop of sugarcane.

Note: Where high rates of ATRAZINE 90 are used alone, apply in a minimum of 1 qt. of water for each pound, of ATRAZINE 90 applied per acre.

#### Do Not Apply By Air

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

#### **FLORIDA**

To control emerged pellitory weed, apply 0.4 to 0.7 lbs. per acre of this product in at least 40 gallons of water per acre. Apply as a directed spray, by ground equipment, prior to close-in. Add 4 quarts of surfactant for each 100 gallons of spray.

Thoroughly cover the weed foliage. To control alexandergrass\*, large crabgrass, pellitory (artillery) weed, and spiny amaranth\*, make application by one of the following methods at planting or ratooning:

- 1) Apply 4.4 lbs. per acre of this product, preemergence. Make one or two additional applications, as needed, postemergence to sugarcane and weeds, at 2.2 lbs per acre of this product. Make application before weeds are greater than 1 1/2 inches in height.
- 2) Apply one to three times, as needed, at 2.2 lbs. per acre of this product postemergence to both sugarcane and weeds. Make application before weeds are greater than 1 1/2 inches in height.

#### LOUISIANA

To control annual weeds during summer fallow period, apply 2.2 lbs. per acre of this product to weed free beds, immediately after beds are formed. After planting, follow normal weed control.

#### Precautions:

- 1) Do not apply more than 11.1 lbs. per acre of this product to any one sugarcane crop.
- 2) If applying 2.2 lbs. per acre of this product during summer fallow period, do not apply more than 4.4 lbs. per acre of this product during the remainder of the growing season.

#### **TEXAS**

To control barnyardgrass\*, pigweed\*, purslane, and sunflower, in plant or ration sugarcane, apply preemergence at 4.4 lbs. per acre of this product. Make one or two additional applications, as needed, at 3.3 lbs. per acre of this product postemergence to sugarcane and weeds. To achieve best results when weeds are emerged, add a nonionic surfactant at a concentration of 2.2 lbs. per 100 gallons of spray and apply before the weeds are greater than 1 1/2 inches in height. (\*Local resistance may result in suppression only or lack of control. Refer to IMPORTANT NOTE within GENERAL INFORMATION SECTION of this label.)

#### Precautions:

- 1) Sugarcane may be injured when under moisture stress, when soil is of low absorptive capacity, or when land is first planted to sugarcane.
- 2) Do not apply after close-in.
- 3) Do not apply more than 11.1 lbs, per acre of this product to any one crop of sugarcane.

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## NOTICE

Aceto warrants that this product conforms to the chemical description on the label thereof and is reasonably fit for the purposes stated on such label only when used in accordance with the directions under normal use conditions. It is impossible to chiminate all risks inherently 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 mainer of use or application, all of which are beyond the control of Aceto. In no case shall Aceto be liable for consequential, special or indirect damages resulting from the use or handling of this product. All such risks shall be assumed by the buyer. Aceto makes no warranties of Merchantability or fitness for a particular purpose nor any other express or implied warranty except as stated above.

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