

#### U.S. ENVIRONMENTAL PROTECTION AGENCY

Office of Pesticide Programs Registration Division (7505P) 1200 Pennsylvania Ave., N.W. Washington, D.C. 20460

83529-87

EPA Reg. Number:

Date of Issuance:

10/13/17

NOTICE OF PESTICIDE:

X Registration
Reregistration
(under FIFRA, as amended)

Term of Issuance: Conditional

Name of Pesticide Product:

SHARDA ACETOCHLOR 29% + ATRAZINE 14.5% CS

Name and Address of Registrant (include ZIP Code):

Sharda USA LLC c/o Wagner Regulatory Associates, Inc. PO Box 640, Hockessin, DE 19707

**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 under the Federal Insecticide, Fungicide and Rodenticide Act.

Registration is in no way 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 conditionally registered in accordance with FIFRA section 3(c)(7)(A). You must comply with the following conditions:

1. Submit and/or cite all data required for registration/registration/registration review of your product under FIFRA when the Agency requires all registrants of similar products to submit such data.

Signature of Approving Official:

Date:

10/13/17

Debra Rate, Ph.D., Acting Product Manager 25 Herbicide Branch, Registration Division (7505P)

EPA Form 8570-6

- 2. You are required to comply with the data requirements described in the DCI identified below:
  - a. Acetochlor GDCI-121601-1660

You must comply with all of the data requirements within the established deadlines. If you have questions about the Generic DCI listed above, you may contact the Chemical Review Manager in the Pesticide Reevaluation Division: <a href="http://iaspub.epa.gov/apex/pesticides/f?p=chemicalsearch:1">http://iaspub.epa.gov/apex/pesticides/f?p=chemicalsearch:1</a>

- 3. Make the following label changes before you release the product for shipment:
  - Revise the EPA Registration Number to read, "EPA Reg. No. 83529-87."
- 4. Submit one copy of the final printed label for the record before you release the product for shipment.

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.

If you fail to satisfy these data requirements, EPA will consider appropriate regulatory action including, among other things, cancellation under FIFRA section 6(e). Your release for shipment of the product constitutes acceptance of these conditions. A stamped copy of the label is enclosed for your records. Please also note that the record for this product currently contains the following CSFs:

• Basic CSF dated 7/13/2017

If you have any questions, please contact Sarah Meadows by phone at 703-347-0505, or via email at meadows.sarah@epa.gov.

Attachment

## RESTRICTED USE PESTICIDE

Due to 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.

GROUP 5 15 HERBICIDES

## Sharda Acetochlor 29% + Atrazine 14.5% CS

**ABN: Etcetra** 

An Encapsulated Herbicide for Weed Control in Corn (Field, Production Seed, Silage, Sweet, and Popcorn), Grain Sorghum (milo), and Miscanthus or Other Non-Food Bioenergy Crops.

ACTIVE INGREDIENTS:	WT. BY %
*Acetochlor, 2-chloro-N-ethoxymethyl-N-(2-ethyl-6-methylphenyl)acetamide	29.0%
**Atrazine, 2-chloro-4-(ethylamino)-6-(isopropylamino)-s-triazine and related triazines	14.5%
OTHER INGREDIENTS:	<u>56.5%</u>
TOTAL:	100.0%

<sup>\*</sup>Contains 324 grams per liter or 2.63 lbs. per U.S. gal. of the active ingredient acetochlor.

# KEEP OUT OF REACH OF CHILDREN CAUTION

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

## IF ON SKIN OR CLOTHING:

- Take off contaminated clothing.
- Rinse skin immediately with plenty of water for 15-20 minutes.
- Call a poison control center or doctor for treatment advice.
- Sensitized persons should avoid further contact and reuse of contaminated clothing.

## HOTLINE NUMBER

**FIRST AID** 

Have the product container or label with you when calling a poison control center or doctor or going for treatment. For emergency information concerning this product, call your poison control center at **1-800-222-1222**.

[Optional referral statements when booklets and container labels are used:

See Panel for First Aid Instructions and booklet for complete Precautionary Statements and Directions for Use.

See label booklet for complete Precautionary Statements, Directions For Use, and Storage and Disposal.

See label booklet for additional Precautionary Statements, Directions For Use, and Storage and Disposal.

See label booklet for complete Directions For Use.]

**EPA Reg. No. 83529-IT** 

EPA Est. No. XXXXX-XX-XXX

Manufactured	for:		^	^
Sharda	USA	LLC	[S]	U
		22 1072	~	

7217 Lancaster Pike, Suite A Hockessin, Delaware 19707

Net Contents: \_\_\_\_\_ gals./L.

ACCEPTED

10/13/2017

Under the Federal Insecticide, Fungicide and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No. 2000.07

83529-87

<sup>\*\*</sup>Contains 161 grams per liter or 1.31 lbs. per U.S. gal. of the active ingredient atrazine and related triazines.

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# PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS CAUTION

Prolonged or repeated skin contact may cause allergic reactions in some individuals. Avoid contact with skin or clothing. Wash thoroughly with soap and water after handling.

## PERSONAL PROTECTIVE EQUIPMENT (PPE)

## Mixers, loaders, applicators, and other handlers must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves such as barrier laminate, butyl rubber ≥14 mils, nitrile rubber ≥14 mils, neoprene rubber ≥14 mils, polyvinyl chloride (PVC) ≥14 mils, or Viton® ≥14 mils
- Shoes and socks
- chemical-resistant apron when mixing/loading, cleaning up spills, or cleaning equipment, or otherwise exposed to the concentrate. See **ENGINEERING CONTROL STATEMENT** for additional requirements.

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry. Discard clothing or other absorbent materials that have been drenched or heavily contaminated with the product's concentrate. Do not reuse them.

#### **ENGINEERING CONTROL STATEMENT**

When applicators use enclosed cabs in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240 (d)(5)], the handler PPE requirements may be reduced or modified as specified in the WPS.

**IMPORTANT:** When reduced PPE is worn because an enclosed cab is being used, applicators must be provided all PPE specified above for "applicators and other handlers" and have such PPE immediately available for use in an emergency, such as a spill or equipment breakdown.

## **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 ground water. Users are advised not to apply atrazine to sand and loamy sand soils where the water table (ground water) is close to the surface and where these soils are very permeable, i.e., well drained. Your local agricultural agencies can provide further information on the type of soil in your area and the location of groundwater.

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

This product is toxic to fish and aquatic invertebrates. Do not apply directly to water, or 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 washwaters.

This chemical demonstrates the properties and characteristics associated with chemicals detected in groundwater. The use of this chemical in areas where soils are permeable, particularly where the groundwater is shallow, may result in groundwater contamination. Acetochlor has properties that may result in surface water contamination via dissolved runoff and runoff erosion. Practices should be followed to minimize the potential for dissolved runoff and/or runoff erosion.

## **DIRECTIONS FOR USE**

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

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

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 Sharda USA, LLC for a refund.

Not for Use in Nassau and Suffolk Counties in New York State.

#### AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE), and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

DO NOT enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 12 hours.

**Exception:** If the product is soil-injected or soil-incorporated, the Worker Protection Standard, under certain circumstances, allows workers to enter the treated area if there will be no contact with anything that has been treated.

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

- Coveralls
- Chemical-resistant gloves such as barrier laminate, butyl rubber ≥14 mils, nitrile rubber ≥14 mils, neoprene rubber ≥14 mils, polyvinyl chloride (PVC) ≥14 mils, or Viton® ≥14 mils
- Shoes plus socks

## **RESISTANCE MANAGEMENT**

Atrazine and acetochlor, the active ingredients in this product, are Group 5 and Group 15 herbicides. Some pests are known to develop resistance to herbicides that have been used repeatedly. While the development of weed resistance is well understood, it is not easily predicted. Therefore, herbicides should be used in conjunction with the resistance management strategies in the area. Consult the local or State agricultural advisors for details. If weed resistance should develop in the area, this product used alone may not continue to provide sufficient levels of pest control. If the reduced levels of control cannot be attributed to improper application techniques, improper use rates, improper application timing, unfavorable weather conditions or abnormally high pest pressure, a resistant strain may have developed.

To reduce the potential for pesticide resistance, use this product in a rotation program with other classes of chemistry and modes of action. Always apply this product at the specified rates and in accordance with the use directions. Do not use less than specified label rates alone or in tank mixtures. Do not use reduced rates of the tank mix partner. For optimum performance, scout fields carefully and begin applications when pests are smaller rather than larger. If resistance is suspected, contact the local or State agricultural advisors.

## **INTEGRATED WEED PEST MANAGEMENT**

Integrate Sharda Acetochlor 29% + Atrazine 14.5% CS into an overall weed management strategy whenever the use of an herbicide is required. Practices known to reduce weed development (tillage, crop competition) and herbicide use (weed scouting, proper application timing, banding) should be followed wherever possible. Consult local agricultural and weed authorities for additional IPM strategies established for your area.

## **PRODUCT INFORMATION**

**Sharda Acetochlor 29% + Atrazine 14.5% CS** is recommended for control of yellow nutsedge and many annual grasses and broadleaf weeds listed in the "**WEEDS CONTROLLED**" section of this label. This product alone will not control emerged seedlings. This product may be applied either as a surface application before or after planting or after crop emergence. This product may also be shallowly incorporated before planting to blend the herbicide treatment into the upper 1 inch of soil. Except for minimum or conservation tillage systems, the seedbed should be fine, firm and free of clods and trash.

Read and carefully observe cautionary statements and all other information appearing on the labeling of all products used in mixtures and sequential products. Use according to the most restrictive label directions for each product in the mixture.

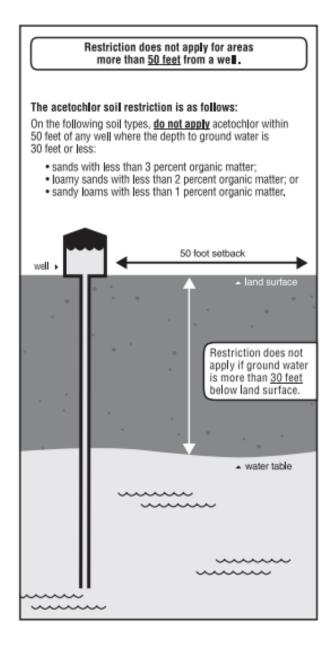
**NOTE**: Use **Sharda Acetochlor 29% + Atrazine 14.5% CS** for weed control in corn and grain sorghum only. CORN (ALL TYPES INCLUDING SWEET CORN), MILO (SORGHUM), SOYBEANS, WHEAT OR TOBACCO CAN BE PLANTED THE YEAR FOLLOWING THE USE OF THIS PRODUCT. IF SOYBEANS ARE TO BE PLANTED THE FOLLOWING YEAR, THERE IS THE POSSIBILITY OF CROP INJURY DUE TO CARRYOVER OF ATRAZINE.

Applicators should evaluate soil conditions carefully to be sure that they choose the correct label rate.

The use rates of **Sharda Acetochlor 29% + Atrazine 14.5% CS** and the other herbicides labeled for use in tank mixtures with this product vary with soil texture. Unless soil texture is specifically named, rate tables in this label refer to only three soil textural groups: coarse, medium and fine.

## **Soil Types:**

- Fine: Silty Clay Loam, Clay Loam, Sandy Clay, Silty Clay, Clay
- Medium: Loam, Silt Loam, Silt, Sandy Clay Loam
- Coarse: Sand, Loamy Sand, Sandy Loam



#### **Use Restrictions:**

Not for Sale, Sale Into, Distribution and/or Use in Nassau and Suffolk Counties of New York State.

This chemical demonstrates the properties and characteristics associated with chemicals detected in groundwater. The use of this chemical in areas where soils are permeable, particularly where the groundwater is shallow, may result in groundwater contamination. On the following soil types, do not apply this product within 50 feet of any well where the depth to groundwater is 30 feet or less: sands with less than 3 percent organic matter; loamy sands with less than 2 percent organic matter; or sandy loams with less than 1 percent organic matter.

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, or used within 50 feet of all wells, including abandoned wells, drainage wells, and sink holes. Operations that involve mixing, loading, rinsing, or washing of this product into or from pesticide handling or application equipment or containers within 50 feet of any well are prohibited unless conducted on an impervious pad constructed to withstand the weight of the heaviest load that may be positioned on or moved across the pad. Such a pad shall be designed and maintained to contain any product spill or equipment leaks, container or equipment rinse or washwater, 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 selfcontained. 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.

States may have in effect additional requirements regarding well-head setbacks and operational area containment.

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

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

Do not flood irrigate to apply or incorporate this product.

Product must be used in a manner which will prevent back siphoning into wells, spills or improper disposal of excess pesticide, spray mixtures or rinsates.

Do not apply this product through any type of irrigation system except under conditions specified on this label, or otherwise directed on separately published supplemental labeling for this product in possession of the user at the time of application.

Disposal of excess pesticide, spray mixtures or rinsate must be according to label use instructions or according to the State Pesticide or Environmental Control Agency or the Hazardous Waste representative at the nearest EPA regional office.

Do not apply under conditions which favor runoff or wind erosion of soil containing this product to non-target areas. To prevent offsite movement due to runoff or wind erosion:

- Avoid treating powdery dry or light sandy soils when conditions are favorable for wind erosion. Under these conditions, the soil surface should first be settled by rainfall or irrigation.
- Do not apply to impervious substrates such as paved or highly compacted surfaces or frozen or snow covered soils.
- Do not use tailwater from the first flood or furrow irrigation of treated fields to treat non-target crops unless at least ½ inch of rainfall has occurred between application and the first irrigation.

Do not apply this product using aerial application equipment, unless otherwise directed by approved supplemental labeling in possession of the user at the time of application.

Do not apply when wind conditions favor drift to non-target sites. To minimize spray drift to non-target areas:

- Use low-pressure application equipment capable of producing a large droplet spray. Do not use nozzles that produce a fine droplet spray. Minimize drift by using sufficient spray volume to ensure adequate coverage with large droplet size sprays.
- Keep ground driven spray boom as low as possible above the target surface.
- Make application when the wind velocity favors on-target product deposition (approximately 3 to 10 miles per hour). Do not apply when wind velocity exceeds 15 miles per hour. Avoid application when gusts approach 15 miles per hour.
- Low humidity and high temperatures increase the likelihood of spray drift to sensitive areas. Avoid spraying during conditions of low humidity and/or high temperatures. Do not apply during inversion conditions.

Use of this product not consistent with this label may result in injury to persons, animals or crops, or other unintended consequences.

## Pre-Harvest Intervals (PHI):

- For field corn forage use, allow 60-day pre-harvest interval.
- For grain sorghum forage use, allow 60-day pre-harvest interval.

Flush sprayer with clean water after use.

## **ROTATION TO FOOD CROPS**

Do not rotate to food crops other than soybeans, corn, cotton, milo (grain sorghum), wheat or tobacco.

## **ROTATION TO NON-FOOD WINTER COVER CROPS**

Following harvest of food crops that have been treated with **Sharda Acetochlor 29% + Atrazine 14.5% CS**, only non-food or non-feed winter cover crops (with the exception of wheat) may be planted. Do not graze or harvest rotational cover crops for food or animal feed for 18 months following the last application of this product. This prohibition does not apply to wheat, which may be planted 4 months following the last application of this product, or to non-grass animal feeds, which may be planted 9 months after the last application of this product.

The maximum atrazine broadcast application rates for corn and grain sorghum:

- If no atrazine was applied before corn or grain sorghum emergence, apply a maximum of 2.0 pounds active ingredient 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 active ingredient per acre per calendar year.
- Apply a maximum of 2.0 pounds active ingredient per acre as a single pre-emergence application on soils that are not highly
  erodible or on highly erodible soils (as defined by the Natural Resources Conservation Service) if at least 30% of the soil is covered
  with plant residues, or
- Apply a maximum of 1.6 pounds active ingredient per acre as a single pre-emergence application on highly erodible soils (as defined by the Natural Resources Conservation Service) if less than 30% of the surface is covered with plant residues; or 2.0 pounds active ingredient per acre if only applied post-emergence.

When tank-mixing or sequentially applying, atrazine or products containing atrazine to corn or grain sorghum, the total pounds atrazine applied (pounds active ingredient per acre) must not exceed 2.5 pounds active ingredient per year.

## **Tile-Outletted Terraced Fields Containing Standpipes**

To ensure protection of surface water from runoff through standpipes with tile-outlets in terraced fields, one of the following restrictions must be used in applying atrazine to the tile-terraced fields containing standpipes:

- 1) Do not apply this product within 66 feet of standpipes in tile-outletted terraced fields.
- 2) Apply this product to the entire tile-outletted terraced field and immediately incorporate it to a depth of 2 to 3 inches in the entire field.
- 3) Apply this product to the entire tile-outletted terraced field under a no-till practice only when a high crop residue management practice is used. 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.

#### **TANK MIXTURES**

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

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directions for use and precautionary statements of each product in the tank mixture.

## MIXING, SPRAYING, AND HANDLING INSTRUCTIONS

**NOTE:** Direct contact or exposure to this product or spray mixtures of this product should be minimized. The following instructions for transfer, mixing, cleaning or repairing equipment should be followed in order to minimize this exposure. Review the protective clothing requirements as listed in the "**PRECAUTIONARY STATEMENTS**" section of this label and do not use this product until you have the necessary protective clothing.

#### 2.5 Gallon Containers

Open pouring from these containers can result in exposure from splashing or spilling. Special care in lifting and pouring is strongly recommended.

#### **Bulk Containers**

Open pouring from these containers can result in exposure from splashing or spilling and is not recommended. This product should be transferred from these containers to the mix or spray tank using pumps or transfer probes. The probe or pump should not be removed from the container or disconnected until the container is emptied or rinsed. Use the pump or probe system to rinse the empty container and transfer the rinsate directly to the mix or spray tank.

#### **Equipment Cleaning and Repair**

Cleaning and repair of transfer systems and application equipment is a source of exposure to this product. Care should be taken to minimize exposure during cleaning and repair to transfer systems application equipment. Whenever possible, these systems or equipment should be rinsed before being cleaned or repaired. When repairs must be made during transfer or application, the equipment should be shut down, and special care taken to avoid contact with the pesticide.

#### **Sprayer Compatibility**

Always predetermine the compatibility of this product or labeled mixtures of this product with water carrier or sprayable fluid fertilizer carrier by mixing small proportional quantities in advance. Refer to the "Standard Sprayable Fluid Fertilizer Compatibility Test" section in this label to determine the compatibility of this product and the labeled tank mixtures specified for use with sprayable fluid fertilizer carrier.

Mix this product or labeled tank mixtures of this product with the appropriate carrier as follows:

- 1) Place a 20- to 35-mesh screen or wetting basket over filling port.
- 2) Through the screen, fill the sprayer tank one-half full with appropriate carrier.
- 3) If a compatibility agent is necessary to improve mixing or to prevent the formation of undesirable and unsprayable gels or precipitates, while agitating add it to the carrier already in the tank. Use only compatibility agents cleared by FDA for this use. Read and follow all directions for use, cautionary statements and all other information appearing on the selected compatibility agent label. Check for adequate agitation.
- 4) If a wettable powder or dry flowable formulation is used, make a slurry with water, and add it slowly through the screen into the tank. Continue agitation.
- 5) If a flowable formulation is used, add slowly through screen into the tank. Mixing and compatibility may be improved when flowable is premixed one part flowable with one part water and added slowly to the tank in diluted form.
- 6) Add this product slowly through the screen into the tank. Mixing and compatibility may be improved when this product is prediluted with two parts of water and added to the tank in diluted form.
- 7) Complete filling the sprayer tank with carrier. If a Roundup® agricultural herbicide or Gramoxone™ brand herbicide is used, add the required amount near the end of the filling process. Remove hose from tank immediately after filling to avoid siphoning back into the water source.

Maintain good agitation at all times until the contents of the tank are sprayed.

**NOTE:** If spray mixture is allowed to settle at any time, thorough agitation is required to resuspend the mixture before spraying is resumed. Keep bypass line on or near bottom of tank to minimize foaming. Screen size in nozzle or line strainers should be no finer than 50-mesh. Carefully select proper nozzle to avoid spraying a fine mist. Check for even distribution of spray droplets. For best results with ground application, use flat-fan or whirl-chamber nozzle. To reduce loss of chemical due to drift of a fine mist, apply at pressures less than 40 PSI.

## **Standard Sprayable Fluid Fertilizer Compatibility Test**

Herbicides may not always mix evenly throughout a sprayable fluid fertilizer or the components may separate too quickly to make their combined use of practical value. This may be due to certain characteristics of the different fluid fertilizers. A simple test using small quantities of the components is suggested to provide compatibility potential.

## The test follows:

#### **Materials Required For A Compatibility Test**

- 1. Two one-quart jars with lid or stopper (marked "with" and "without").
- 2. Teaspoons (for a more exacting test, a 5 to 10 milliliter (mL) pipette or graduated cylinder is desirable).
- 3. Sprayable fluid fertilizer to be tested.
- 4. The herbicide chemicals to be mixed.

5. A compatibility agent (the purpose of the adjuvant is to help keep the fertilizer and crop protection chemical in suspension, if this assistance is needed).

#### **Procedure**

- 1. Add one pint of the sprayable fluid fertilizer that will be used or other herbicide carrier to each jar marked "with" and "without".
- 2. To the jar marked "with", add ¼ teaspoon or 1.2 milliliters of a suitable compatibility agent; shake gently for 5 to 10 seconds to mix. (¼ teaspoon in one pint is the equivalent of 2 pints per 100 gallons of liquid fertilizer.)
- 3. To each jar add the appropriate amount of herbicide(s). If more than one is used, add them separately with the wettable powders or dry flowables added first, flowables second and liquid last. Shake gently 5 to 10 seconds after each addition.

#### **Observations and Decisions**

- 1. If the herbicide(s) and the sprayable fluid fertilizer are compatible.
- 2. If a compatibility agent is necessary.

Five minutes after the final addition and mixing, observe both jars for the formation of large flakes, sludge, gels or other precipitates. Observe if the herbicide(s) cannot be physically mixed with the liquid fertilizer but remains as small oily particles in the solution. If incompatibility in any form described above occurs in the jar "With" the compatibility agent added, the liquid fertilizer and the herbicide(s) should not be used together in the same spray tank.

If incompatibility as described above occurs in the jar "Without" the adjuvant but not in the jar "With" adjuvant, the use of a compatibility adjuvant is recommended.

Both jars should be allowed to stand and be observed periodically for one-half hour. If the separate layers of liquid fertilizer and additives can be resuspended by shaking, commercial application is possible. An emulsifiable concentrate normally will go to the top after standing; wettable powders will either settle to the bottom of the tank or jar, or float to the top, depending upon the density of the fertilizers.

If the herbicide(s) is compatible with fluid fertilizer in the foregoing test without having to use a compatibility agent, fluid fertilizer may be used for the premixing. If it is not compatible without the compatibility agent, the herbicide(s) should be premixed with water before adding to the spray tank.

## **APPLICATION SYSTEMS**

## **Ground Broadcast Applications**

Apply **Sharda Acetochlor 29% + Atrazine 14.5% CS** and the labeled tank mixtures in 10 or more gallons of solution per acre using broadcast boom equipment. The carrier may be either water or sprayable fluid fertilizer as specified for the crop to be treated in the "**DIRECTIONS FOR USE**" section of this label. Do not apply during periods of gusty winds, when winds are in excess of 15 mph or when other conditions favoring drift exist.

## **Ground Band Applications**

Apply a broadcast equivalent rate and volume per acre. To determine these:

Band Width in Inches Row Width in Inches	X	Broadcast Rate per Acre	=	Band Rate per Acre
Band Width in Inches	Х	Broadcast Volume per Acre	=	Band Volume per Acre

## **APPLICATION TIMING AND METHODS**

## **Early Pre-Plant Surface Application**

Sharda Acetochlor 29% + Atrazine 14.5% CS and some labeled tank mixtures of this product may be applied in no-till and other conservation tillage systems before weeds emerge and up to 45 days before planting field corn or silage corn. Split applications can be made 30 to 45 days before planting with 60% of the specified broadcast rate applied initially and the remaining 40% applied at planting. Applications made less than 30 days before planting can be made either as a split or as a single application. If weeds are present at the time of application, apply this product in tank mixture with an appropriate contact herbicide. Observe directions for use, precautions and restrictions on the label of the contact herbicide. During the planting operation, be careful not to move untreated soil to the surface or move treated soil out of the row, as weed control may be reduced.

## **Pre-Plant Incorporation Applications**

Sharda Acetochlor 29% + Atrazine 14.5% CS and many of the labeled tank mixtures may be mixed into the upper 1 inch of soil using shallow incorporation equipment any time within 14 days before planting. Apply the specified treatment rate to the soil surface as a broadcast application. Either existing soil moisture or subsequent precipitation or irrigation is required to bring incorporated herbicide treatments into contact with germinating weed seedlings. Irrigation within 10 days following application may improve weed control. If weeds emerge after treatment, rotary hoe, or shallowly cultivate immediately to improve performance but only cultivate if rainfall or irrigation does not occur within 10 to 14 days after application.

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## **Pre-Emergence Surface Applications**

Sharda Acetochlor 29% + Atrazine 14.5% CS and all labeled tank mixtures may be applied to the soil surface after planting and before either crop or weed emergence. Apply within 5 days of last pre-plant tillage. If weeds emerge after treatment, or if treatment is applied more than 5 days after last pre-plant tillage, rotary hoe or shallowly cultivate immediately to improve performance. Precipitation or overhead sprinkler irrigation is required after application to move the herbicide treatment into the weed germination zone. The amount of precipitation or overhead sprinkler irrigation required depends on existing soil mixture, soil type and percent organic matter content, but ½ - ¾ inch is normally adequate. Performance is improved when moisture is received within 7 days after application and before weed emergence. High intensity or excessive rainfall or excessive irrigation after application may reduce control.

## **Post-Emergence Surface Applications**

Sharda Acetochlor 29% + Atrazine 14.5% CS and certain tank mixtures may be applied post-emergence until corn reaches 11" in height or grain sorghum reaches 11" (5- to 6-leaf stage) in height. Application must be made before weed seedling emergence or in a tank mixture that controls emerged weeds. Read and follow all restrictions and directions on tank mix product labels. Refer to the specific treatment intended in the "DIRECTIONS FOR USE" section of the label to determine if post-emergence applications to corn or grain sorghum are recommended and determine the proper weed and crop growth stage limitations. Precipitation or overhead sprinkler irrigation is required after application to move the herbicide treatment into the weed germination zone to control weeds that have not emerged. The amount of precipitation or irrigation required depends on existing soil moisture, soil type and percent organic matter content, but ½ - ¾ inch is normally adequate. If weeds emerge after treatment, rotary hoe or shallowly cultivate to improve performance.

## **RESTRICTIONS:**

- Do not make a post-emergence application to sweet corn.
- If making application post-emergence in liquid fertilizer carriers, MAKE APPLICATION TO FIELD CORN ONLY.
- DO NOT make application if air temperatures are expected to reach 85 degrees F within 24 hours after application.

**NOTE:** Post-emergence application of this product in liquid fertilizer carriers can result in crop injury. Some leaf burn may occur on corn. Surfactants, crop oil or other additives are not recommended unless specified in the tank mix instructions.

#### **Cultivation Information**

Delay cultivation after application for as long as possible unless weeds or grasses emerge. Shallowly cultivate or rotary hoe immediately if weeds or grasses emerge. If cultivation is necessary because of soil crusting or compaction, set equipment shallow and minimize lateral soil movement to avoid dilution or displacement of the herbicide treatment. If a band application is used and weeds have emerged in the treated band, set cultivator to throw soil into the row covering the band.

## **WEEDS CONTROLLED**

When application is made as directed under conditions described, **Sharda Acetochlor 29% + Atrazine 14.5% CS** alone will control the weeds listed in the table below.

	ANNU	AL BROADLEAVES	
Common Name	Scientific Name	Common Name	Scientific Name
Beggarweed, Florida	Desmodium tortuosum	Mustard	Brassica spp.
Carpetweed	Mollugo verticillata	Nightshade, Black	Solanum nigrum
Cocklebur <sup>1</sup>	Xanthium strumarium	Nightshade, Hairy	Solanum sarrachoides
Galinsoga	Galinsoga spp.	Pigweed (Carelessweed)	Amaranthus spp.
Groundcherry, Annual	Physalis spp.	Purslane	Portulaca oleracea
Groundcherry, Cutleaf	Physalis angulata	Pusley, Florida	Richardia scabra
Henbit	Lamium amplexicaule	Ragweed, Common	Ambrosia artemisiifolia
limsonweed	Datura stramonium	Sida, Prickly; Teaweed	Sida spinosa
Kochia <sup>2</sup>	Kochia scoparia	Smartweed	Polygonum pensylvanicum Polygonum persicaria
_ambsquarters	Chenopodium album	Velvetleaf, Buttonweed <sup>1</sup>	Abutilon theophrasti
Morningglory, Annual <sup>1</sup>	Ipomoea purpurea	Waterhemp	Amaranthus tuberculatus
	ANN	UAL GRASSES	·
Barnyardgrass	Echinochloa crus-galli	Panicum, Browntop	Panicum fasciculatum
Crabgrass	Digitaria ischaemum Digitaria sanguinalis	Panicum, Fall	Panicum dichotomiflorum
Cupgrass, Woolly <sup>3</sup>	Eriochloa villosa	Rice, Red	Oryza sativa
oxtail, Giant	Setaria faberi	Signalgrass, Broadleaf	Brachiaria platyphylla
Foxtail, Green; Robust Purple; Robust White	Setaria viridis	Sprangletop, Red	Leptochloa filiformis
Foxtail, Yellow	Setaria lutescens	Wheat, Volunteer	Triticum aestivum
Goosegrass	Eleusine indica	Witchgrass	Panicum capillare L.
Oat, Wild	Avena fatua		1
	-	SEDGE	
Nutsedge, Yellow <sup>4</sup>	Cyperus esculentus		
<sup>1</sup> Use the higher rate in the applica	tion rate range within each Appli	ication Rate table. Control of these w	eeds can be erratic especially under

<sup>&</sup>lt;sup>1</sup>Use the higher rate in the application rate range within each Application Rate table. Control of these weeds can be erratic especially under dry weather conditions. Control escaped weeds with cultivation or application of an appropriate EPA-registered post-emergence herbicide.

2 Trickles and the trickles are required as a light of a rest trickles of a rest trickles to be desired.

<sup>&</sup>lt;sup>2</sup>Triazine-resistant biotypes may require a post-sequential application of a non-triazine herbicide for control.

<sup>3</sup>Apply 4.4 qts. of **Sharda Acetochlor 29% + Atrazine 14.5% CS** per acre to control this weed in corn. Apply 3.7 qts. of **Sharda Acetochlor 29% + Atrazine 14.5% CS** per acre to control this weed in grain sorghum. Control of these weeds can be erratic especially under dry weather conditions. Control escaped weeds with cultivation or application of an appropriate EPA-registered post-emergence herbicide.

<sup>4</sup>Pre-plant incorporate for control.

#### WEEDS PARTIALLY CONTROLLED

When applied immediately after planting or within 5 days of last tillage, **Sharda Acetochlor 29% + Atrazine 14.5% CS** at a rate of 3.6 to 4.4 quarts per acre in corn on a broadcast basis will reduce competition from the following Hard-To-Control weeds.

ANNUAL BROADLEAVES				
Common Name	Scientific Name	Common Name	Scientific Name	
Ragweed, Giant	Ambrosia trifida	Sunflower, Common	Helianthus annuus	
Sicklepod	Cassia obtusifolia			
ANNUAL GRASSES				
Johnsongrass, seedling	Sorghum halepense	Sandbur, field	Cenchrus incertus	
Millet, proso	Panicum miliaceum	Shattercane; Wildcane	Sorghum bicolor	
Panicum, Texas	Panicum texanum			

**NOTE:** For hard-to-control weeds, additional amounts of Harness® herbicide (IN CORN ONLY) and/or atrazine may be added to the specified treatment rates for this product to provide improved control. For more consistent control of common cocklebur, annual morningglory or velvetleaf, additional atrazine may be applied so that the total atrazine rate is at least 1.5 qts. per acre on medium-textured soil with less than 3% organic matter, and 1.5 - 2.0 qts. on medium- and fine-textured soils with 3% or greater organic matter content. For more consistent control of woolly cupgrass additional Harness herbicide may be applied (IN CORN ONLY) so that the total acetochlor rate is 3.0 lbs. per acre. The following table shows the amounts of Harness herbicide and/or atrazine that can be added to specific treatment rates of **Sharda Acetochlor 29% + Atrazine 14.5% CS**.

The maximum atrazine broadcast application rates for corn or grain sorghum:

- If no atrazine was applied before corn or grain sorghum emergence, apply a maximum of 2.0 lbs. a.i. per acre broadcast. If a post-emergence treatment is required following an earlier herbicide application, the total atrazine applied may not exceed 2.5 lbs. a.i. per acre per calendar year.
- 2.0 lbs. a.i. per acre as a single pre-emergence application on soils that are not highly erodible or on highly erodible soils (as defined by the Natural Resources Conservation Service) if at least 30% of the soil is covered with plant residues, or
- 1.6 lbs. a.i. per acre as a single pre-emergence application on highly erodible soils (as defined by the Natural Resources Conservation Service) if less than 30% of the surface is covered with plant residues; or 2.0 lbs. a.i. per acre if only applied post-emergence.

## **RESTRICTIONS:**

Do not use more than 4.4 qts. of Sharda Acetochlor 29% + Atrazine 14.5% CS per acre in corn per calendar year.

Do not use more than 3.7 qts. of Sharda Acetochlor 29% + Atrazine 14.5% CS per acre in grain sorghum per calendar year.

APPLICATION RATE	PRODUCT ADDITION (CORN ONLY) (Maximum Rate)		
Sharda Acetochlor 29% + Atrazine 14.5% CS (Qts.)	HARNESS Herbicide (Pts.)	ATRAZINE (Qts.)	
2.4	1.6	1.2	
2.9	1.2	1.0	
3.2	0.9	0.9	

## **CORN CONSERVATION OR MINIMUM TILLAGE SYSTEMS**

**NOTE:** Each section of this label provides specified treatment rates for **Sharda Acetochlor 29% + Atrazine 14.5% CS** and tank mixtures including this product. Applications, which are not consistent with recommendations in this label, may result in unsatisfactory weed control, injury to crops, persons or animals, or other unintended consequences. Refer to specific product labels for crop rotation restrictions and cautionary statements of all products used in these tank mixtures, including precautions on soil pH sensitive varieties, minimum re-cropping interval, and rotational guidelines. It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

Use the higher rates in the application rate ranges in areas of heavy weed infestation or where otherwise specified. If emerged weeds exist at planting, the application of a contact herbicide or tillage is recommended when possible to eliminate existing weeds. Do not apply when conditions favor drift.

When making applications to corn, do not exceed a total of 4.4 qts. per acre of **Sharda Acetochlor 29% + Atrazine 14.5% CS** per year. Detailed information regarding "**Application Systems**" and "**APPLICATION TIMING AND METHODS**" should be carefully reviewed in conjunction with the information in this section. If the specific information in this section differs from the "**PRODUCT INFORMATION**", the specific information should control.

## **At-Planting Applications**

The tank mix recommendations in the "CORN CONVENTIONAL TILLAGE SYSTEMS" of this label may also be followed when using Conservation or Minimum Tillage systems. Follow all label precautions, directions and restrictions of tank-mix partners.

When applied as directed under the conditions described, the specified tank mixtures control many emerged annual weeds, suppress many emerged perennial weeds and give pre-emergence control of many annual grasses and broadleaf weeds when corn will be planted directly into a cover crop, established sod or in previous crop residues. These tank mixtures will not control regrowth from perennial weeds.

See the specific product labels for crop rotation restrictions and cautionary statements of all products used in these tank mixtures. For mixing instructions, see the "MIXING, SPRAYING, AND HANDLING INSTRUCTIONS" section of this label.

Sharda Acetochlor 29% + Atrazine 14.5% CS and tank mixtures with Princep™ or Praxis can be tank mixed with a Roundup agricultural herbicide, Gramoxone brand herbicide and/or 2,4-D. See detailed instructions for tank mixes with Princep or Praxis in the below sections.

Make application of the specified tank mixtures with a Roundup agricultural herbicide or 2,4-D (amine or low volatile ester) in 10 - 20 gals. of water or 10 - 60 gals. of nitrogen solution per acre, or the tank mixtures with Gramoxone brand herbicide in 20 - 60 gals. of water or clear liquid fertilizer per acre immediately before, during or after planting, but BEFORE CROP EMERGENCE. As density of stubble, crop residue or weeds increase, spray gallonage and rate should be increased within the application rate ranges to ensure complete coverage. In the absence of emerged vegetation, delete the Roundup agricultural herbicide, Gramoxone or 2,4-D portion of these tank mixtures.

## **Control or Suppression of Emerged Weeds**

ATTENTION: AVOID DRIFT—EXTREME CARE MUST BE USED WHEN APPLYING THESE TANK MIXTURES TO PREVENT INJURY TO DESIRABLE PLANTS AND CROPS. Do not allow spray mist to drift since even minute quantities of spray can cause severe damage or destruction to nearby crops, plants or other areas on which treatment is not intended. Do not apply when winds are gusty or in excess of 5 mph or when other conditions, including lesser wind velocities, will allow drift to occur. When spraying, avoid combinations of pressure and nozzle type that will result in fine particles (mist) which are more likely to drift.

## **Roundup Agricultural Herbicides**

#### **Annual Weeds**

Apply a Roundup agricultural herbicide in these tank mixtures at the proper rate for the weed per the label instructions.

## **Perennial Weeds**

At normal application rates in minimum tillage systems, perennial weeds may not be at the proper stage of growth for control. Use of full labeled rates of Roundup agricultural herbicides, in the mixtures above and under these conditions will provide top kill and reduce competition from emerged perennial grasses and broadleaf weeds.

DO NOT USE THIS MIXTURE FOR CONTROL OF BERMUDAGRASS OR JOHNSONGRASS.

**NOTE:** When using these tank mixtures, do not exceed labeled maximum rates.

## **Ammonium Sulfate**

The addition of ammonium sulfate in the spray solution may increase the performance of Roundup agricultural herbicide tank mixtures on emerged annual weeds under adverse growing conditions. When using ammonium sulfate, add 2% dry ammonium sulfate by weight or 17 lbs. per 100 gals. of water. Ammonium sulfate should be added to the water in the spray tank and completely dissolved before adding the herbicide or surfactant. Do not mix ammonium sulfate in fluid fertilizer solutions. The equivalent rate of ammonium sulfate in a liquid formulation may also be used.

If ammonium sulfate is added directly to the spray tank, add slowly with agitation. Adding too quickly may clog outlet lines. Nozzle tip plugging may result from the use of low quality ammonium sulfate. To determine quality, perform a jar test by adding ½ cup of ammonium sulfate to 1 gal. of water and agitate for one minute. If undissolved sediment is observed, predissolve the ammonium sulfate in water and filter before adding to the spray tank.

## **Surfactants**

Nonionic surfactants that are labeled for use with herbicides may be used with some Roundup agricultural herbicides, check specific label for restrictions. Do not reduce rates of Roundup agricultural herbicides when adding surfactant. Use 0.5% surfactant concentration (2.0 qts. per 100 gals. of spray solution) when using surfactants that contain at least 50% active ingredient or a 1% surfactant concentration (4.0 qts. per 100 gals. of spray solution) for those surfactants containing less than 50% active ingredient. Read and carefully observe surfactant cautionary statements and other information appearing on the surfactant label.

#### **Gramoxone Brand Herbicides**

When used as directed, Gramoxone brand herbicides in a labeled tank mixture control many emerged annual weeds and suppresses many emerged perennial weeds.

## **Broadcast Treatment**

Apply Gramoxone brand herbicides in these tank mixtures immediately before, during or after planting but BEFORE CROP EMERGENCE. As density of stubble, crop residue or weeds increase, spray gallonage should be increased within the application rate range for complete coverage. Add a nonionic spreader surfactant (approved for use on crops) containing at least 75% surfactant active agent at 8 oz. per 100 gals. of diluted spray. REFER TO THE SPECIFIC GRAMOXONE BRAND HERBICIDE LABEL FOR PRECAUTIONARY STATEMENTS.

#### 2,4-D

When used as directed, 2,4-D in labeled tank mixtures controls many emerged annual and perennial broadleaf weeds. For emerged weeds controlled, see the "WEEDS CONTROLLED" section of the label for 2,4-D.

#### **Broadcast Treatment**

Apply the labeled rate of 2,4-D (amine or low volatile ester) in the specified tank mixtures. Applications should be made 7 to 14 days before planting or 3 to 5 days after planting but BEFORE CORN EMERGES. As density of stubble, crop residue or weeds increase, spray gallonage should be increased within the application rate range for complete coverage.

DO NOT use 2,4-D on light, sandy soils, or where soil moisture is inadequate for normal weed growth. Observe all precautions and limitations on the 2,4-D label booklet.

## **Early Pre-Plant Application**

If emerged weeds are present at the time of treatment, a Roundup agricultural herbicide, Gramoxone brand herbicide or 2,4-D should be added to **Sharda Acetochlor 29% + Atrazine 14.5% CS** according to the directions for use on their respective product labels. If unsatisfactory weed control occurs (due to excessively dry or excessively wet conditions) following the earlier application, a post-emergence application of an appropriate labeled grass and/or broadleaf weed herbicide may be used. If a post-emergence treatment includes the herbicide used early pre-plant, do not exceed the labeled rate for corn on a given soil texture.

#### Sharda Acetochlor 29% + Atrazine 14.5% CS

When applied in a single application will provide pre-emergence control or reduced competition of the annual grasses and broadleaf weeds listed in the "WEEDS CONTROLLED" section of this label. If weeds are emerged at time of application, apply a labeled contact herbicide with Sharda Acetochlor 29% + Atrazine 14.5% CS. Observe the directions for use, precautions and restrictions on the label of the contact herbicide.

## **Application Systems**

• Ground: Broadcast boom

## **Application Methods**

• **Single Application:** Application of **Sharda Acetochlor 29% + Atrazine 14.5% CS** should be made less than 30 days before planting but before weed emergence. **NOTE:** Applications on coarse soils should not be made more than 2 weeks before planting.

BROADCAST RATE PER ACRE*			
Soil Texture Sharda Acetochlor 29% + Atrazine 14.5% CS (Qts./Acre)			
Coarse Soils (Sand, Loamy Sand, Sandy Loam) 2.9			
Medium Soils (Loam, Silt Loam, Silt, Sandy Clay Loam)	2.9 - 3.7		
Fine Soils (Silty Clay Loam, Clay Loam, Sandy Clay, Silty Clay, Clay)	3.2 - 3.7		

<sup>\*</sup>In areas of heavy weed infestation use up to 4.3 qts. per acre on medium- and fine-textured soils.

To provide broad-spectrum weed control, single applications of **Sharda Acetochlor 29% + Atrazine 14.5% CS** must be followed with a planned post-emergence application of a labeled broadleaf and/or grass herbicide. Observe the directions for use, precautions and restrictions on the label of the post-emergence herbicide before use of these products.

If emerged weeds are present at planting, the application of a contact herbicide or tillage is recommended when possible to eliminate existing weeds.

## **Sequential Application**

Application of **Sharda Acetochlor 29% + Atrazine 14.5% CS** in corn following Princep should be utilized for the control of fall panicum, crabgrass or broadleaf signalgrass. Make application of the labeled rate of Princep before weed emergence and no more than 45 days before planting. At or immediately following planting, but before crop emergence, apply the product.

BROADCAST RATE PER ACRE*		
Soil Texture Sharda Acetochlor 29% + Atrazine 14.5% CS (Qts./Acre)		
Coarse Soils (Sand, Loamy Sand, Sandy Loam) 2.9		
Medium Soils (Loam, Silt Loam, Silt, Sandy Clay Loam)	2.9 - 3.7	
Fine Soils (Silty Clay Loam, Clay Loam, Sandy Clay, Silty Clay, Clay)	3.2 - 3.7	

<sup>\*</sup>In areas of heavy weed infestation use up to 4.3 qts. per acre on medium- and fine-textured soils.

When using the Princep® Caliber 90® formulation use equivalent rates.

**NOTE:** LAND TREATED WITH PRINCEP SHOULD NOT BE PLANTED TO ANY CROP OTHER THAN CORN FOR ONE YEAR FOLLOWING TREATMENT AS CROP INJURY MAY OCCUR. AFTER HARVEST OF TREATED CROP, PLOW AND THOROUGHLY TILL THE SOIL IN THE FALL OR SPRING TO MINIMIZE POSSIBLE INJURY TO SPRING SEEDED ROTATIONAL CROPS.

#### **CORN CONVENTIONAL TILLAGE SYSTEMS**

Use the higher rates in the application rate ranges in areas of heavy weed infestation or where otherwise specified. If emerged weeds exist at planting, the application of a contact herbicide or tillage is recommended when possible to eliminate existing weeds.

Do not make application when conditions favor drift.

When making applications to corn, do not exceed a total of 4.4 qts. per acre of **Sharda Acetochlor 29% + Atrazine 14.5% CS** per year. Detailed information regarding "**Application Systems**" and "**APPLICATION TIMING AND METHODS**" should be carefully reviewed in conjunction with the information in this section. If the specific information in this section differs from the "**PRODUCT INFORMATION**", the specific information should control.

#### Sharda Acetochlor 29% + Atrazine 14.5% CS

Apply **Sharda Acetochlor 29% + Atrazine 14.5% CS** in water or sprayable fluid fertilizer solution for control of yellow nutsedge and the annual grasses and broadleaf weeds listed in the "**WEEDS CONTROLLED**" section of this label.

## **Application Systems**

• Ground: Broadcast boom; banded

## **Application Methods**

Pre-Plant Incorporated, Pre-Emergence Surface, Post-Emergence Surface

BROADCAST RATE PER ACRE*				
Soil Texture Sharda Acetochlor 29% + Atrazine 14.5% CS (Qts./Acre)				
Coarse Soils (Sand, Loamy Sand, Sandy Loam) 2.9				
Medium Soils (Loam, Silt Loam, Silt, Sandy Clay Loam)				
Fine Soils (Silty Clay Loam, Clay Loam, Sandy Clay, Silty Clay, Clay)  3.2 - 3.7				
*In areas of heavy weed infestation use up to 4.3 qts. per acre on medium- and fine-textured soils.				

## Sharda Acetochlor 29% + Atrazine 14.5% CS Plus Roundup Agricultural Herbicides Post-Emergence on Corn containing Roundup Ready® Corn 2 Technology

This program may be used pre-emergence and post-emergence to corn containing Roundup Ready 2 Technology including Roundup Ready Corn 2 until the corn reaches 11" in height. Refer to the Roundup WeatherMAX® and Roundup agricultural herbicide labels for specific weeds controlled post-emergence. AVOID DRIFT. EXTREME CARE MUST BE USED WHEN APPLYING THIS PRODUCT TO PREVENT INJURY TO DESIRABLE PLANTS AND CROPS WHICH DO NOT CONTAIN THE ROUNDUP READY GENE.

## **Application Systems**

• Ground: Broadcast boom

## **Application Methods**

• Pre-Emergence Surface

## **Sequential Program**

Sharda Acetochlor 29% + Atrazine 14.5% CS may be applied pre-emergence to corn containing Roundup Ready 2 Technology including Roundup Ready Corn 2 at the Roundup Ready® Rate of 2.0 qts. per acre in a planned pre-emergence followed by Roundup agricultural herbicide post-emergence sequential program

## **Post-Emergence Surface**

**Sharda Acetochlor 29% + Atrazine 14.5% CS** may be applied post-emergence to corn containing Roundup Ready 2 Technology including Roundup Ready Corn 2 from seedling emergence until the corn is 11" in height at the Roundup Ready® rate of 2.0 qts. per acre. Labeled use rates for this tank-mix with Roundup agricultural herbicides are defined in the table below. Use the higher rate on larger weeds and where heavy weed infestations exist. This tank mix should be applied when weeds are 2 - 4" tall and before the weed height and/or density become competitive with the crop.

For difficult to control weeds such as fall panicum, barnyardgrass, crabgrass, shattercane, broadleaf signalgrass, and Pennsylvania smartweed use the higher rate of Roundup agricultural herbicides.

For mixing instructions, refer to the "MIXING, SPRAYING, AND HANDLING INSTRUCTIONS" section of this label.

BROADCAST RATE PER ACRE			
Soil Texture Sharda Acetochlor 29% + Atrazine 14.5% CS (Qts./Acre			
Coarse Soils (Sand, Loamy Sand, Sandy Loam)	1.5 - 2.9		
Medium Soils (Loam, Silt Loam, Silt, Sandy Clay Loam)	1.5 - 3.7		
Fine Soils (Silty Clay Loam, Clay Loam, Sandy Clay, Silty Clay, Clay)	1.5 - 3.7		

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

- Tank Mixtures for Pre-Emergence Use in Corn: Ensure that the specific product being used in the tank mixture is registered for application pre-emergence to corn. Read and follow label directions of all products in the tank mixture. The most restrictive label directions apply. Sharda Acetochlor 29% + Atrazine 14.5% CS may be tank-mixed with the following products for pre-emergence use in corn or products with the same active ingredient(s) and concentration(s): Aim EC, Balance PRO, Balance Flexx, Banvel, Callisto, Clarity, Distinct, Hornet WDG, Linex 4L, Lorox DF, Marksman, Princep, Python WDG, Resource, Roundup Brand Agricultural herbicides, 2,4-D (atrazine, carfentrazone-ethyl, clopyralid, dicamba, diflufenzopyr, flumetsulam, flumiclorac pentyl ester, glyphosate, isoxaflutole, linuron, mesotrione, simazine)
- Tank Mixtures for Post-Emergence Use in Corn: Ensure that the specific product being used in the tank mixture is registered for application post-emergence (in-crop) to corn. Read and follow label directions of all products in the tank mixture. The most restrictive label directions apply. Sharda Acetochlor 29% + Atrazine 14.5% CS may be tank-mixed with the following products for post-emergence use in corn or products with the same active ingredient(s) and concentration(s): Aim EC, Balance Flexx, Banvel, Callisto, Clarity, Distinct, Hornet WDG, Impact, Linex 4L, Lorox DF, Marksman, Resource, Roundup Brand Agricultural herbicides, 2,4-D, (atrazine, carfentrazone-ethyl, clopyralid, dicamba, diflufenzopyr, flumetsulam, flumiclorac pentyl ester, glyphosate, isoxaflutole, linuron, mesotrione, topramezone)

## **GRAIN SORGHUM (MILO)**

**NOTE:** Each section of this label provides recommended treatment rates for **Sharda Acetochlor 29% + Atrazine 14.5% CS** and tank mixtures including this product. Applications, which are not consistent with recommendations in this label, may result in unsatisfactory weed control, injury to crops, persons or animals, or other unintended consequences. Consult the specific product labels for crop rotation restrictions and cautionary statements of all products used in these tank mixtures, including precautions on soil pH sensitive varieties, minimum re-cropping interval and rotational guidelines.

Use the higher use rates in the rate ranges in areas of heavy weed infestation or where otherwise specified. If emerged weeds exist at planting, the application of a contact herbicide or tillage is recommended when possible to eliminate existing weeds. Do not make application when conditions favor drift.

Detailed information regarding "Application Systems" and "APPLICATION TIMING AND METHODS" should be carefully reviewed in conjunction with the information in this section. If the specific information in this section differs from the "PRODUCT INFORMATION", the specific information should control.

**Sharda Acetochlor 29% + Atrazine 14.5% CS**, when applied in a single application will provide pre-emergence control or reduced competition of the annual grasses and broadleaf weeds listed in the "WEEDS CONTROLLED" section of this label. If weeds are emerged at time of application, apply a labeled contact herbicide with **Sharda Acetochlor 29% + Atrazine 14.5% CS**. Observe the directions for use, precautions and restrictions on the label of the contact herbicide.

Pre-plant incorporated and pre-emergence surface applications of **Sharda Acetochlor 29% + Atrazine 14.5% CS** must be made ONLY to grain sorghum planted with seed that has been properly treated with seed protectant or safener. Rates from the table below should be based on the soil texture and the tolerance of the sorghum hybrid.

When making applications to grain sorghum, do not exceed a total of 3.7 qts. per acre of **Sharda Acetochlor 29% + Atrazine 14.5% CS** per year. If there has been a previous application of a product containing atrazine, do not exceed a total of 2.5 lbs. of atrazine a.i. per acre per calendar year.

**NOTE:** In Texas, use only in the Panhandle area and the fine-textured soils of the Gulf Coast and the Blacklands. In the Texas Panhandle and Oklahoma Panhandle, apply **Sharda Acetochlor 29% + Atrazine 14.5% CS** as a pre-emergence surface application only. In the Texas Panhandle, Oklahoma Panhandle and the fine-textured soils of the Gulf Coast and the Blacklands of Texas, do not exceed 3.5 qts. of **Sharda Acetochlor 29% + Atrazine 14.5% CS** per acre as crop injury may result due to atrazine. Applications made to grain sorghum growing on alkali soils or where cuts, fills or erosion have exposed calcareous or alkali subsoils may result in crop injury.

## **Application Systems**

• Ground: Broadcast boom; banded

## **Application Methods**

- Pre-Plant Incorporated, Pre-Emergence Surface, Post-Emergence Surface
- **Post-Emergence Surface:** Apply **Sharda Acetochlor 29% + Atrazine 14.5% CS** post-emergence to grain sorghum before the crop exceeds 11" in height (in general, 5- to 6-leaf gain sorghum).

BROADCAST RATE PER ACRE*		
Sharda Acetochlor 29% + Atrazine 14.5% CS (Qts./Acre)		
Soil Texture	Organic Matter	
Less than 1.5% 1.5% or More		
<b>Coarse Soils**</b> 2.0 - 2.5 2.3 - 2.9		

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(Sand, Loamy Sand, Sandy Loam)			
Medium Soils	2.0 - 2.5	2.3 - 3.7	
(Loam, Silt Loam, Silt, Sandy Clay Loam)	2.0 - 2.3	2.3 - 3.7	
Fine Soils	2.0 - 2.9	2.5 - 3.7	
(Silty Clay Loam, Clay Loam, Sandy Clay, Silty Clay, Clay)	2.0 - 2.9	2.5 - 5.7	
*Use the higher rate in the range for areas of heavy weed infestation.			
**Do not use Sharda Acetochlor 29% + Atrazine 14.5% CS for pre-plant incorporation in coarse or medium soils			

#### MISCANTHUS AND OTHER NON-FOOD PERENNIAL BIOENERGY CROPS

For weed control in Miscanthus and other non-food perennial bioenergy crops, apply **Sharda Acetochlor 29% + Atrazine 14.5% CS** at 3.3 - 4.4 pts. per acre after the crop has been transplanted or after fully emerged to a height of at least 2 - 3". Up to 2 applications of **Sharda Acetochlor 29% + Atrazine 14.5% CS** may be made each year. The total amount of **Sharda Acetochlor 29% + Atrazine 14.5% CS** applied each year must not exceed 8.8 pts. per acre.

#### **RESTRICTIONS:**

Do not allow the Miscanthus or other non-food perennial bioenergy crop treated with **Sharda Acetochlor 29% + Atrazine 14.5% CS** to be grazed or used as animal feed.

## STORAGE AND DISPOSAL

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

**PESTICIDE STORAGE:** Store pesticides away from food, pet food, feed, seed, fertilizers, and veterinary supplies. Keep container closed to prevent spills and contamination.

**PESTICIDE DISPOSAL:** To avoid wastes, use all material in this container, including rinsate, by application in accordance with label directions. If wastes cannot be avoided, offer remaining product to a waste disposal facility or pesticide disposal program. Such programs are often run by state or local governments or by industry. All disposal must be in accordance with applicable Federal, state and local regulations and procedures.

**CONTAINER HANDLING [Less Than 5 Gallons]:** Non-refillable container. Do not reuse or refill this container. Offer for recycling if available. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or mix tank. Drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or mix tank or store rinsate for later use and disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration or, by other procedures allowed by state and local authorities.

**CONTAINER HANDLING [Greater Than 5 Gallons]:** Non-refillable container. Do not reuse or refill this container. Offer for recycling, if available. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ 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. Then offer for recycling if available or reconditioning if appropriate or puncture and dispose of in a sanitary landfill or by incineration.

**CONTAINER HANDLING [For Bulk and Mini-Bulk Containers]:** Refillable container. Refill this container with pesticide only. Do not use this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the person refilling. To clean container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures allowed by state and local authorities.

**SEED DISPOSAL:** To dispose of out of date or otherwise unmarketable seed from plants which have been treated with this product, broadcast and lightly incorporate seed into field soils using disc or other suitable implement. Any resulting crop may be destroyed by chemical or mechanical means. Alternatively, seed may be destroyed by deep burial, incineration or landfill disposal.

## CONTAINER IS NOT SAFE FOR FOOD, FEED, OR DRINKING WATER!

## **CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY**

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

The Directions for Use of this product must be followed carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Ineffectiveness or other unintended consequences may result because of such factors as manner of use or application, weather, presence of other materials or other influencing factors in the use of the product, which are beyond the control of Sharda USA LLC or Seller. To the extent consistent with applicable law, all such risks shall be assumed by Buyer and User, and Buyer and User agree to hold Sharda USA LLC and Seller harmless for any claims relating to such factors.

Sharda USA LLC warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use, subject to the inherent risks referred to above, when used in accordance with directions under normal use conditions. This warranty does not extend to the use of this product contrary to label instructions, or under conditions not reasonably foreseeable to or beyond the control of Seller or Sharda USA LLC and Buyer and User assume the risk of any such use. To the extent consistent with applicable law, Sharda USA LLC, MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS STATED ABOVE.

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