

## UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION

November 10, 2021

Ogongi Ogongi Authorized Agent Sharda USA LLC c/o Wagner Regulatory Associates, Inc. P.O. Box 640 Hockessin, DE 19707

Subject: Registration Review Label Amendments Incorporating Mitigation Measures from

the Atrazine and Acetochlor Interim Decisions and the Technical Registrants' Commitments for the Endangered Species Act (ESA) Biological Evaluation for

Atrazine

Product Name: SHARDA ACETOCHLOR 32.6% + ATRAZINE 24.4% SE

EPA Registration Number: 83529-92

*Application Dates*: 12/9/2020 and 9/28/2021 *Decision Numbers*: 568677 and 578742

#### Dear Ogongi Ogongi:

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

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

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

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labeling for 18 months from the date of this letter. After 18 months, you may only distribute or sell this product if it bears this new revised labeling or subsequently approved labeling. "To distribute or sell" is defined under FIFRA section 2(gg) and its implementing regulation at 40 CFR 152.3.

If you have any questions about this letter, please contact Ben Tweed at tweed.benjamin@epa.gov.

Sincerely,

Linda Arrington, Branch Chief

Risk Management and Implementation Branch 4

Pesticide Re-Evaluation Division

Office of Pesticide Programs

Enclosure

[MASTER LABEL]

#### RESTRICTED USE PESTICIDE

This product is a restricted use herbicide 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. Users must read and follow all precautionary statements and instructions for use in order to minimize potential for atrazine to reach ground and surface water

ACETOCHLOR	GROUP	15	HERBICIDES
ATRAZINE	GROUP	5	HERBICIDES

## Sharda Acetochlor 32.6% + Atrazine 24.4% SE **ABN: Aectra Plus**

A Pre-Emergence Herbicide For Control of Annual Grasses and Broadleaf Weeds in Field Corn, Production Seed Corn, Silage Corn, Sweet Corn, and Popcorn.

ACTIVE INGREDIENTS:	WT. BY %
*Acetochlor, 2-chloro-N-ethoxymethyl-N-(2-ethyl-6-methylphenyl)acetamide	32.6%
**Atrazine, 2-chloro-4-(ethylamino)-6-(isopropylamino)-s-triazine and related triazines	24.4%
OTHER INGREDIENTS:	<u>43.0%</u>
TOTAL:	100.0%

<sup>\*</sup>Contains 3.0 lbs. per U.S. gal. of the active ingredient acetochlor.

### **KEEP OUT OF REACH OF CHILDREN** WARNING

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.)

FIRST AID					
IF IN EYES:	Hold eye open and rinse slowly and gently with water for 15-20 minutes.				
	Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eyes.				
	Call a poison control center or doctor for treatment advice.				
IF SWALLOWED:	Call a poison control center or doctor immediately for treatment advice.				
	Have person sip a glass of water if able to swallow.				
	<ul> <li>Do not induce vomiting unless told to do so by a poison control center or doctor.</li> </ul>				
	<ul> <li>Do not give anything by mouth to an unconscious person.</li> </ul>				
IF ON SKIN OR	Take off contaminated clothing.				
CLOTHING:	Rinse skin immediately with plenty of water for 15-20 minutes.				
Call a poison control center or doctor for treatment advice.					
HOTLINE NUMBER					

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.

Note to Physician: Probable mucosal damage may contraindicate the use of gastric lavage.

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

[See label booklet for [complete] [additional] [First Aid,] [Precautionary Statements], [Directions For Use], and [Storage and Disposal].]

EPA Reg. No. 83529-92

Manufactured for: Sharda USA LLC 7217 Lancaster Pike, Suite A

Hockessin, Delaware 19707

[Gallons/Liters]

ACCEPTED

**EPA Est. No. XXXXX-XX-XXX** 

11/10/2021

Under the Federal Insecticide, Fungicide and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No. 83529-92

<sup>\*\*</sup>Contains 2.25 lbs. per U.S. gal. of the active ingredient atrazine and related triazines.

#### PRECAUTIONARY STATEMENTS

#### HAZARDS TO HUMANS AND DOMESTIC ANIMALS WARNING

Causes substantial but temporary eye injury. Harmful if swallowed. Do not get in eyes or on clothing. Avoid contact with skin. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

#### PERSONAL PROTECTIVE EQUIPMENT (PPE)

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

- Coveralls over long-sleeved shirt and long pants
- Chemical-resistant gloves including barrier laminate, butyl rubber ≥14 mils, nitrile rubber ≥14 mils, neoprene rubber ≥14 mils, polyvinyl chloride (PVC) ≥14 mils, or Viton® ≥14 mils
- Chemical-resistant footwear and socks
- Protective eyewear
- Chemical-resistant headgear (If overhead exposure)
- 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 closed systems or 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 after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

#### **ENVIRONMENTAL HAZARDS**

This pesticide is toxic to 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 wash waters.

#### **Groundwater Advisory**

Acetochlor is known to leach through soil into groundwater under certain conditions as a result of label use. This chemical may leach into groundwater if used in areas where soils are permeable, particularly where the water table is shallow. Acetochlor 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.

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.

#### **Surface Water Advisory**

This product may impact surface water quality due to runoff of rainwater. This is especially true for poorly draining soils and soils with shallow ground water. This product is classified as having high potential for reaching surface water via runoff for several weeks after application.

A level, well-maintained vegetative buffer strip between areas to which this product is applied and surface water features such as ponds, streams, and springs will reduce the potential loading of acetochlor from runoff water and sediment. Runoff of this product will be reduced by avoiding applications when rainfall or irrigation is expected to occur within 48 hours.

Acetochlor has properties that may result in surface water contamination via dissolved runoff and runoff erosion. Practices must be followed to minimize the potential for dissolved runoff and/or runoff erosion.

#### **Non-Target Organism Advisory Statement**

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

#### **Endangered Species**

It is a Federal offense to use any pesticide in a manner that results in an unauthorized "take" (e.g., kill or otherwise harm) of an endangered species under the Endangered Species Act section 9. When using this product, you must follow the measures contained in the Endangered Species Protection Bulletin for the area in which you are applying the product. You must obtain a Bulletin no earlier than 6 months before using this product. To obtain Bulletins, consult: http://www.epa.gov/espp/, call 1-844-447-3813, or email ESPP@epa.gov. You must use the Bulletin valid for the month in which you will apply the product.

#### **DIRECTIONS FOR USE**

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

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

Do not apply this product 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 Sale, Sale Into, Distribution and/or 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 including 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
- Protective eyewear

#### **WEED RESISTANCE MANAGEMENT**

**Sharda Acetochlor 32.6% + Atrazine 24.4% SE** contains two active ingredients, acetochlor and atrazine. Acetochlor is classified as a Group 15 herbicide (chloroacetamide chemical family) and is a mitosis inhibitor; and atrazine is classified as a Group 5 herbicide (triazine chemical family) and is an inhibitor of photosynthesis at photosystem II site A.

Herbicide resistance is defined as the inherited ability of a plant to survive and reproduce following exposure to a dose of herbicide normally lethal to the wild type. In a plant, resistance may be naturally occurring or induced by such techniques as genetic engineering or selection of variants produced by tissue culture or mutagenesis. Any weed population may contain or develop plants that are naturally resistant to **Sharda Acetochlor 32.6% + Atrazine 24.4% SE** and other Group 15 or Group 5 herbicides. Weed species with acquired resistance to Group 15 or Group 5 herbicides may eventually dominate the weed population if Group 15 or Group 5 herbicides are used repeatedly in the same field or in successive years as the primary method of control for targeted species. This may result in partial or total loss of control of those species by **Sharda Acetochlor 32.6% + Atrazine 24.4% SE** or other Group 15 or Group 5 herbicides.

Indicators of possible herbicide resistance include: (1) failure to control a weed species normally controlled by the herbicide at the dose applied, especially if control is achieved on adjacent weeds; (2) a spreading patch of non-controlled plants of a particular weed species; (3) surviving plants mixed with controlled individuals of the same species. If resistance is suspected, prevent weed seed production in the affected area by an alternative herbicide from a different group or by a mechanical method such as hoeing or tillage.

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Prevent movement of resistant weed seeds to other fields by cleaning harvesting and tillage equipment when moving between fields, and planting clean seed. If a weed pest population continues to progress after treatment with this product, discontinue use of this product, and switch to another management strategy or herbicide with a different mode of action, if available.

To delay herbicide resistance, consider:

- Avoiding the consecutive use of **Sharda Acetochlor 32.6% + Atrazine 24.4% SE** or other target site of action Group 15 or Group 5 herbicides that have a similar target site of action, on the same weed species.
- Using tank mixtures or premixes with herbicides from different target site of action Groups as long as the involved products are all registered for the same use, have different sites of action, and are both effective at the tank mix or prepack rate on the weed(s) of concern.
- Basing herbicide use on a comprehensive Integrated Pest Management (IPM) program.
- Monitoring treated weed populations for loss of field efficacy.

Users should scout before and after application. Users should report lack of performance to registrant or their representative.

Contact your local sales representative, extension agent, or certified crop advisors to find out if suspected resistant weeds to this MOA have been found in your region. If resistant biotypes of target weeds have been reported, use the application rates of this product specified for your local conditions. Tank mix products so that there are multiple effective mechanisms of action for each target weed.

#### **INTEGRATED WEED PEST MANAGEMENT**

Integrate Sharda Acetochlor 32.6% + Atrazine 24.4% SE 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**

For use only on field corn, production seed corn, silage corn, sweet corn, and popcorn. Corn in this label refers to: field corn, production seed corn, silage corn, sweet corn, and popcorn.

Sharda Acetochlor 32.6% + Atrazine 24.4% SE is a unique combination of the herbicides acetochlor and atrazine plus the antidote or safener, dichlormid. While the acetochlor and atrazine provide weed control, the dichlormid safens corn against herbicide injury. Sharda Acetochlor 32.6% + Atrazine 24.4% SE may be applied to the surface or incorporated into the top 1 - 2 inch layer of soil. It may be used for control alone, or in tank mix combinations, for the weeds listed in the "WEEDS CONTROLLED" section of this label. Sharda Acetochlor 32.6% + Atrazine 24.4% SE controls weeds by interfering with normal germination and seedling development. Sharda Acetochlor 32.6% + Atrazine 24.4% SE does not control established or germinated weeds present at application.

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.

Applicators should evaluate soil conditions carefully to be sure that they choose the correct label rate. The use rates of **Sharda Acetochlor 32.6% + Atrazine 24.4% SE** 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 3 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:**

- Application to sweet corn via mechanically pressurized handgun is prohibited.
- Use on roadsides; Conservation Reserve Program (CRP) land; conifers, including Christmas Tree plantings; timber; forestry; and, Miscanthus and other perennial bioenergy crops is prohibited.
- Do not apply **Sharda Acetochlor 32.6% + Atrazine 24.4% SE** to sweet corn as an early post-emergence application.
- **Chemigation:** Do not apply this product through any type of irrigation system.
- Do not use flood irrigation to apply or incorporate this product.
- Product must be used in a manner that will prevent back siphoning in wells, spills or improper disposal of excess pesticide, spray mixtures or rinsates.
- Do not apply under conditions that favor runoff or wind erosion of soil containing this product to non-target areas. To prevent off-site 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.
- Aerial Application: Do not apply this product using aerial application equipment.

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# Restriction does not apply for areas more than 50 feet from a well. The acetochlor soil restriction is as follows: On the following soil types, do not apply acetochlor within 50 feet of any well where the depth to ground water is

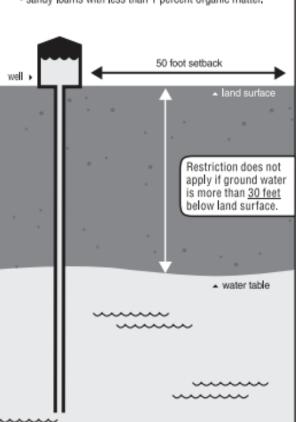
30 feet or less:

- condo with loss than 0

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.



- 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% organic matter; loamy sands with less than 2% organic matter; or sandy loams with less than 1% organic matter.
- 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 mph). Do not apply when wind velocity exceeds 15 mph. Avoid application when gusts approach 15 mph.
- 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.
- This product must not be mixed or loaded within 50 ft. of intermittent streams and rivers, natural or impounded lakes and reservoirs. This product must not be applied by ground within 66 feet of the points where field surface water runoff enters perennial or intermittent streams and rivers or within 200 feet around natural or impounded lakes and reservoirs. If this product is applied to highly erodible land, the 66-foot buffer or setback from runoff entry points must be planted to crop, seeded with grass or other suitable crop.
- This product must not be mixed or loaded, or used within 50 feet of all wells, including abandoned wells, drainage wells, and sinks holes. Operations that involve mixing, loading, rinsing, or washing of this product into or from pesticide handling or application equipment or containers within 50 feet of any well are prohibited unless conducted on an impervious pad constructed to withstand the weight of the heaviest load that may be positioned on or moved across the pad. Such a pad shall be designed and maintained to contain any product spills or equipment leaks, container or equipment rinse or washwater, and rainwater that may fall on the pad. Surface water shall not be allowed to either flow over or from the pad, which means the pad must be self-contained. The pad shall be sloped to facilitate material removal.
- An unroofed pad shall be of sufficient capacity to contain at a minimum 110% of the capacity of the largest pesticide container
  or application equipment on the pad. A pad that is covered by a roof of sufficient size to completely exclude precipitation from
  contact with the pad shall have a minimum containment capacity of 100% of the capacity of the largest pesticide container or
  application equipment on the pad. Containment capacities as described above shall be maintained at all times. The above
  specified minimum containment capacities do not apply to vehicles when delivering pesticide shipments to the mixing/loading
  site. Additional State imposed requirements regarding well-head setbacks and operational area containment must be observed.

#### Tile-Outletted Fields Containing Standpipes

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

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

#### Maximum Atrazine Application Rates Per Calendar Year

Maximum annual atrazine broadcast application rates for corn must be as follows:

- If no atrazine was applied prior to corn emergence, apply a maximum of 2.0 pounds active ingredient (3.5 quarts Sharda Acetochlor 32.6% + Atrazine 24.4% SE) per acre. If post-emergence treatment is required following an earlier herbicide application, the total atrazine applied must not exceed 2.5 pounds active ingredient per acre per calendar year. Note: 1 quart per acre Sharda Acetochlor 32.6% + Atrazine 24.4% SE delivers 0.5625 pound active ingredient atrazine per acre.
- Apply a maximum of 2.0 pounds active ingredient (3.5 quarts Sharda Acetochlor 32.6% + Atrazine 24.4% SE) per acre if a

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- single pre-emergence application is made on soils that are not highly erodible or on highly erodible soil if at least 30% of the soil is covered with plant residues, or
- Apply a maximum of 1.6 pounds active ingredient (2.8 quarts Sharda Acetochlor 32.6% + Atrazine 24.4% SE) per acre as a single pre-emergence application on highly erodible soils if less than 30% of the soil is covered with plant residues; or 2.0 pounds active ingredient (3.5 quarts Sharda Acetochlor 32.6% + Atrazine 24.4% SE) per acre if only applied post-emergence.
- Maximum Acetochlor Application Rates Per Calendar Year
  - Maximum annual acetochlor broadcast application rates for corn must not exceed 3.0 pounds active ingredient (4.0 quarts
     Sharda Acetochlor 32.6% + Atrazine 24.4% SE) per acre. Note: 1 quart per acre Sharda Acetochlor 32.6% + Atrazine 24.4%
     SE delivers 0.75 pound active ingredient acetochlor per acre.
- **Pre-Harvest Interval:** Do not apply **Sharda Acetochlor 32.6% + Atrazine 24.4% SE** within 60 days of harvest of field corn for field corn forage uses or 45 days for sweet corn forage uses.
- Post-emergence applications of atrazine to corn must be made before the crop reaches 12 inches in height.

#### **Use Precautions:**

- Failure to strictly follow label directions may result in exceeding the maximum annual atrazine use rates as stipulated by the Environmental Protection Agency.
- This product contains atrazine and thus may not control weeds that are known or suspected to be triazine-resistant. Following many years of continuous use of atrazine and chemically related products, biotypes of some of the weeds listed on this label have been reported which cannot be effectively controlled by atrazine and related herbicides. Where this is known or suspected and weeds controlled by atrazine are expected to be present along with resistant biotypes, it is recommended that atrazine be used in combinations or in sequence with other registered herbicides which are not triazines. If only resistant biotypes are expected to be present, use a registered non-triazine herbicide.
- Do not use **Sharda Acetochlor 32.6% + Atrazine 24.4% SE** on any crop other than field corn, production seed corn, silage corn and popcorn.
- Sharda Acetochlor 32.6% + Atrazine 24.4% SE must not be used on corn seed stock such as Breeders, Foundation, or Increase.
- Do not contaminate irrigation water used for crops other than corn or water used for domestic purposes.
- Do not apply Sharda Acetochlor 32.6% + Atrazine 24.4% SE before pre-irrigation in irrigated areas.
- Do not allow Sharda Acetochlor 32.6% + Atrazine 24.4% SE to contaminate feed or food.
- Sharda Acetochlor 32.6% + Atrazine 24.4% SE must not be stored near seeds, fertilizers, or foodstuffs.
- All containers of Sharda Acetochlor 32.6% + Atrazine 24.4% SE must be kept tightly closed when not in use.
- Applied according to directions and under normal growing conditions, Sharda Acetochlor 32.6% + Atrazine 24.4% SE will not harm the treated crop. During germination and early stages of growth, extended periods of unusually cold and wet or hot and dry weather, insect or plant disease attack, carryover pesticide residues, the use of certain soil applied systemic insecticides, improperly placed fertilizers or soil insecticides may create abnormal conditions that weaken crop seedlings. Sharda Acetochlor 32.6% + Atrazine 24.4% SE used under these abnormal conditions could result in crop injury.

#### MANDATORY SPRAY DRIFT MANAGMENT

#### **Ground Boom Applications:**

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

#### **Boomless Ground Applications:**

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

#### **SPRAY DRIFT ADVISORIES**

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

#### IMPORTANCE OF DROPLET SIZE

An effective way to reduce spray drift is to apply large droplets. Use the largest droplets that provide target pest control. While applying larger droplets will reduce spray drift, the potential for drift will be greater if applications are made improperly or under unfavorable environmental conditions.

#### Controlling Droplet Size - Ground Boom

• **Volume** - Increasing the spray volume so that larger droplets are produced will reduce spray drift. Use the highest practical spray volume for the application. If a greater spray volume is needed, consider using a nozzle with a higher flow rate.

- Pressure Use the lowest spray pressure recommended for the nozzle to produce the target spray volume and droplet size.
- Spray Nozzle Use a spray nozzle that is designed for the intended application. Consider using nozzles designed to reduce drift.

#### **BOOM HEIGHT - Ground Boom**

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

#### **SHIELDED SPRAYERS**

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

#### **TEMPERATURE AND HUMIDITY**

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

#### **TEMPERATURE INVERSIONS**

Drift potential is high during a temperature inversion. Temperature inversions are characterized by increasing temperature with altitude and are common on nights with limited cloud cover and light to no wind. The presence of an inversion can be indicated by ground fog or by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.

#### **WIND**

Drift potential generally increases with wind speed. AVOID APPLICATIONS DURING GUSTY WIND CONDITIONS. Applicators need to be familiar with local wind patterns and terrain that could affect spray drift.

#### **Boomless Ground Applications:**

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

#### **Handheld Technology Applications:**

• Take precautions to minimize spray drift.

#### **ROTATIONAL CROP RESTRICTIONS**

When tank mixing with other herbicides, follow the most restrictive crop rotation guidelines on the label of each product used. The following rotational crops may be planted as indicated:

Rotational Crop	Timing or Interval
Corn <sup>1</sup>	0 months after application
Sorghum and Soybeans <sup>2</sup>	Spring following application
Alfalfa, Barley, Dry Beans (Adzuki, Kidney, Lima, Navy, Pinto), Lupin (Grain, White, White	
Sweet), Millet (Pearl or Proso), Oats, Pea (Blackeyed, Chick, Cow, Crowder, Field, Pigeon,	15 months after application*
Southern), Potatoes, Rye, Sugar Beets, Sunflower, Tobacco <sup>3</sup> , Triticale, Wheat, and Wild Rice	• •

<sup>\*</sup>Approved rotation crops list does not include any species of succulent beans and peas.

#### MIXING, SPRAYING, AND HANDLING INSTRUCTIONS

#### **Carriers**

**Liquids:** Either water or liquid fertilizers such as solutions, slurries or suspensions may be used as liquid carriers. If fluid fertilizers are used, a physical compatibility test with these must be done before combining in the spray tank. See **Testing the Compatibility of Sharda Acetochlor 32.6% + Atrazine 24.4% SE and Tank Mixes with Fluid Fertilizers** for details of the compatibility testing procedure. Even if **Sharda Acetochlor 32.6% + Atrazine 24.4% SE** is physically compatible with a fluid fertilizer, constant agitation is necessary to maintain a uniform mixture during application.

**Dry Bulk Fertilizer: Sharda Acetochlor 32.6% + Atrazine 24.4% SE** may be impregnated on dry bulk fertilizer and applied as the fertilizer is spread. Refer to the **Dry Bulk Fertilizer Impregnation** section for directions and restrictions including which fertilizers are compatible.

#### **Adding to Spray Tank**

The spray tank must be clean, thoroughly rinsed and decontaminated before adding either **Sharda Acetochlor 32.6% + Atrazine 24.4% SE** alone or with tank mix combinations. If water is used as the carrier, use clean water.

**Used Alone:** When applying **Sharda Acetochlor 32.6% + Atrazine 24.4% SE** alone, add the specified amount to the spray tank when the tank is half filled with carrier, then add the rest of the water or fluid fertilizer. Provide sufficient agitation during mixing and application to maintain a uniform emulsion.

<sup>&</sup>lt;sup>1</sup>If crop treated with Sharda Acetochlor 32.6% + Atrazine 24.4% SE is lost, corn may be replanted immediately. Do not make a second application of Sharda Acetochlor 32.6% + Atrazine 24.4% SE. Do not apply Sharda Acetochlor 32.6% + Atrazine 24.4% SE after June 10<sup>th</sup>, unless only corn will be planted the following year.

<sup>&</sup>lt;sup>2</sup>Due to the risk of atrazine carryover, injury may occur to soybeans the year following corn when planted in north central and northwest Iowa, south central and southwest Minnesota, northern Nebraska, and southeast South Dakota on soils having a calcareous surface layer and relatively high pH.

<sup>&</sup>lt;sup>3</sup>Because of atrazine carryover, injury may occur to tobacco.

Tank Mixed: If product is used in a tank mixture, conduct a compatibility test be done prior to full scale tank mixing. Refer to the Testing the Compatibility of Sharda Acetochlor 32.6% + Atrazine 24.4% SE and Tank Mixes with Fluid Fertilizers for details on the procedure for such a test. 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.

Once compatibility is confirmed for the tank mix, fill the tank half full of carrier. Start and continue agitation throughout mixing. All return lines to the spray tank must discharge below the liquid level. Add components in the following order of formulation:

- 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. Agitate during the procedure.
- If a flowable formulation is used, add slowly through screen into the tank. Mixing and compatibility may be improved when the flowable is diluted with water before adding to the tank.
- Add Sharda Acetochlor 32.6% + Atrazine 24.4% SE next.
- Add ammonium sulfate then Durango® DMA® herbicide, 2,4-D herbicide, and a non-ionic surfactant last, if needed.
- Complete filling the sprayer tank and continue agitation.
- Batches must be mixed and applied the same day.

#### Volume

Liquid: Use a minimum of 10 gallons per acre in broadcast boom equipment for ground applications.

**Dry Bulk Fertilizer:** Use a minimum of 200 lbs. of dry bulk fertilizer per acre. See **Dry Bulk Fertilizer Impregnation** for directions and restrictions.

#### **Pressure**

If liquid carriers are used, the pressure at the nozzle must be 15 to 40 PSI to ensure good distribution in the spray pattern. Use appropriate nozzles and 50-mesh or coarser screens, if needed. Maintain sufficient agitation to ensure the mixture is suspended in the spray tank.

Testing the Compatibility of Sharda Acetochlor 32.6% + Atrazine 24.4% SE and Tank Mixes with Fluid Fertilizers

Since fluid fertilizers vary, the following procedure is suggested for determining whether **Sharda Acetochlor 32.6% + Atrazine 24.4% SE** may be combined with a specific fluid fertilizer for spray tank application.

#### **Materials Needed:**

- Sharda Acetochlor 32.6% + Atrazine 24.4% SE and any tank mix products.
- Fluid fertilizer to be used.
- Adjuvant for fertilizer tank mix: Use any adjuvant cleared for use on growing crops under 40 CFR 180.1001 to improve the
  compatibility of Sharda Acetochlor 32.6% + Atrazine 24.4% SE with fluid fertilizers. The adjuvant that provides the best
  emulsification depends on the specific fertilizer under consideration.
- Two 1 quart, wide mouth glass jars with lid or stopper.
- Measuring spoons (a 25 mL pipette or graduated cylinder provides more accurate measurement).
- Measuring cup, 8 oz. (257 mL).

#### Procedure:

- 1. Pour a pint (about 473 mL) of the fluid fertilizer into each of the quart jars.
- 2. Add **Sharda Acetochlor 32.6% + Atrazine 24.4% SE** and any tank mix combination to the jars. The order of addition is wettable powders first with mixing, followed by flowables with mixing and the EC's last. The rate of wettable powders and dry flowables is 1 ½ teaspoon per pound of product per acre to be applied. EC's should be added at the rate of ½ tsp. for each pint per acre to be applied. Premixing the wettable powders in 1 oz. of water before adding to the pint of fluid fertilizer will improve the compatibility of the final mixture.
- 3. Add ½ tsp. (2 mL) adjuvant to one of the jars, label it as "With", and mix. The rate of ½ tsp. per pint is equal to 3 pts. of adjuvant per 100 gals. of fluid fertilizer.
- 4. Close both jars with lids or stoppers and mix the contents by turning the jars upside down 10 times.
- 5. Inspect the surface and body of the mixtures:
  - a. Immediately after completing the jar inversions.
  - b. After allowing the jars to stand quietly for 30 minutes.
  - c. And then again after turning the jars upside down 10 times after the 30-minute inspection.

#### **Evaluation:**

If either mixture remains uniform for 30 minutes, the combination may be used. If a uniform mix cannot be made, the mixture must not be used. Should either mixture separate after 30 minutes, but readily remix uniformly with 10 jar inversions, the mixture can be used if adequate agitation is maintained in the tank. If the mixture with adjuvant is satisfactory but the one without adjuvant is not, be sure to add the adjuvant in the spray tank. Add the adjuvant first, at a rate of 3 pints per 100 gallons of fluid fertilizer. Foaming can be reduced or minimized by using moderate agitation. If non-dispersible oil, sludge, or clumps of solids form in the mixtures, the combination must not be used.

#### **Dry Bulk Fertilizer Impregnation**

Impregnation of bulk fertilizer is restricted to commercial facilities. On-farm fertilizer impregnation is prohibited. No more than 500

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tons of bulk fertilizer can be impregnated per day. No single facility may impregnate fertilizer with this product for more than 30 days per calendar year. For use on corn, no more than 340 tons per worker per day for no more than 30 days per calendar year.

The commercial facility impregnating the dry bulk fertilizer must inform, in writing, the user (applicator) of the dry bulk fertilizer that:

- Applicator must wear long-sleeved shirt, long pants, shoes, and socks.
- The restricted-entry interval is 12 hours.

All individual State regulations relating to dry bulk fertilizer blending, registration, labeling, and application are the responsibility of the individual and/or company selling **Sharda Acetochlor 32.6% + Atrazine 24.4% SE**.

When making application of **Sharda Acetochlor 32.6% + Atrazine 24.4% SE** alone or in tank mixes with dry bulk fertilizers, follow all directions for use and precautions on the respective tank mix product labels regarding rates, soil texture, application methods and rotational restrictions. Use a minimum of 200 lbs. dry fertilizer per acre.

Approved Dry Fertilizer Ingredients for Use with Sharda Acetochlor 32.6% + Atrazine 24.4% SE

Fertilizer	N	P	K		
Ammonium Phosphate-Sulfate	16	20	0		
Ammonium Sulfate	21	0	0		
Diammonium Phosphate	18	46	0		
Monoammonium Phosphate	11	56	0		
Potassium Chloride	0	0	60		
Potassium Sulfate	0	0	52		
Urea*	45	0	0		
*Some ureas may be phytotoxic when high rates are applied to corn. Use only urea rates known to be safe for corn application.					

For impregnating the pesticides on dry fertilizers, use an appropriate mixer equipped with suitable spraying equipment. The spray nozzles must be positioned inside the mixer to provide uniform spray coverage of the tumbling fertilizer. The **Sharda Acetochlor 32.6%** + **Atrazine 24.4% SE** must be sprayed uniformly onto the fertilizer using a fine spray pattern. Tank mix components may be applied as separate ingredients with powders and dry flowables added first or they may be mixed in a slurry in the proper ratio and added jointly. **Sharda Acetochlor 32.6%** + **Atrazine 24.4% SE** may also be impregnated on the go and applied with pneumatic applicators.

The following table provides a reference to determine the amount of **Sharda Acetochlor 32.6% + Atrazine 24.4% SE** to be mixed per ton of dry bulk fertilizer for a range of herbicide rates.

Sharda Acetochlor 32.6% + Atrazine 24.4% SE Fertilizer Impregnation Rate Conversion Table

Fertilizer Rate	Acres per Ton	Quarts of Sharda Acetochlor 32.6% + Atrazine 24.4% SE per Ton of Fertilizer to Deliver			
(Lbs. per Acre)	Acres per ron	2.2 Qts./Acre	2.7 Qts./Acre	3.2 Qts./Acre	
200	10.0	22.0	27.0	32.0	
250	8.0	17.6	21.6	25.6	
300	6.7	14.7	18.0	21.3	
350	5.7	12.6	15.4	18.3	
400	5.0	11.0	13.5	16.0	
450	4.5	9.8	12.0	14.2	

To determine the amount of Sharda Acetochlor 32.6% + Atrazine 24.4% SE needed for other fertilizer rates, use the following formula:

Sharda Acetochlor 32.6% + Atrazine 24.4% SE (Quarts/Acre)	Х	2,000	= Quarts of Sharda Acetochlor 32.6% + Atrazine 24.4% SE per Ton of Fertilizer
Pounds of Fertilizer/Acre			per for or refulizer

If the herbicide/fertilizer mixture is too wet, use of a drying agent is required to provide a dry, free-flowing mixture. For mixtures to be used in spinning-disc applicators, Micro-Cel E calcium silicate powder (Manville, Filtration & Minerals) is recommended for use as a drying agent. Mixtures to be used in pneumatic applicators can use Micro-Cel E or Agsorb 16/30 RVM-MS granular clay (Oil-Dri Corporation). The drying agents must be added separately and uniformly to the prepared pesticide/fertilizer mixture, in a quantity that is sufficient to provide a suitable free-flowing mixture. Generally, less than 2% Micro-Cel E or 5% Agsorb 16/30 RVM-MS by weight is required.

**Precaution:** To avoid potential for explosion, do not impregnate **Sharda Acetochlor 32.6% + Atrazine 24.4% SE** on ammonium sorbate nitrate, potassium nitrate, or sodium nitrate fertilizer or fertilizer blends. Do not impregnate on single (0-20-0) or triple (0-46-0) super phosphate. Do not impregnate on agricultural limestone because **Sharda Acetochlor 32.6% + Atrazine 24.4% SE** will not be absorbed.

#### **APPLICATION TIMING AND METHODS**

For the optimum period of effective weed control during the time most critical to corn production, make pre-plant applications of **Sharda Acetochlor 32.6% + Atrazine 24.4% SE** as close as possible to planting. Make pre-emergence applications as close as possible to planting, but before weed emergence.

**Restriction:** Do not make application of **Sharda Acetochlor 32.6% + Atrazine 24.4% SE** to sweet corn as an early post-emergence application.

#### **Early Pre-Plant Applications**

On medium and fine-textured soils, application of **Sharda Acetochlor 32.6% + Atrazine 24.4% SE** may be made up to 30 days before planting.

#### **Pre-Plant Incorporation Applications**

**Sharda Acetochlor 32.6% + Atrazine 24.4% SE** and certain tank mixes may be mechanically incorporated in the top 2" of the soil with field cultivators, discs, or spring tooth harrows at any time within 14 days before planting. Improper incorporation, excessive crop residues, or poor soil tilth may result in erratic, streaked or otherwise unsatisfactory weed control. Avoid moving or shaping soil after incorporation.

#### **Pre-Emergence Surface Applications**

Sharda Acetochlor 32.6% + Atrazine 24.4% SE and all labeled tank mixtures may be applied to the soil surface after planting and before either crop or weed emergence. Make application 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  $\frac{1}{2}$  -  $\frac{3}{4}$ " 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-Plant Pre-Emergence Applications**

Application of **Sharda Acetochlor 32.6%** + **Atrazine 24.4% SE** may be made immediately after planting but before corn emergence. If rain or sprinkler irrigation does not occur within 7 days after application, weed control may be improved by using a rotary hoe, or similar device, to shallowly incorporate the herbicide. Do not disturb the germinating corn. Do not remove **Sharda Acetochlor 32.6%** + **Atrazine 24.4% SE** from the weed control zone or dilute it with untreated soil.

#### **Banding Pre-Emergence Applications**

Application of **Sharda Acetochlor 32.6% + Atrazine 24.4% SE** may be made in a 10 - 14" band after corn planting but before corn emergence. If rain or sprinkler irrigation does not occur within 7 days after application, weed control may be improved by using a rotary hoe or similar device to incorporate the herbicide. Do not disturb the germinating corn. Do not remove **Sharda Acetochlor 32.6% + Atrazine 24.4% SE** from the weed control zone or dilute it with untreated soil.

#### **Early Post-Emergence Applications**

Application of **Sharda Acetochlor 32.6% + Atrazine 24.4% SE** may be made early post-emergence to corn (except sweet corn) up to 11" tall. Applications must be made before weed seedling emergence or in a tank mixture that controls the emerged weeds. Read and follow restrictions and directions on tank mix product labels.

#### **Sprinkler Irrigation**

Do not make application of **Sharda Acetochlor 32.6% + Atrazine 24.4% SE** through sprinkler irrigation systems. Use a sprinkler system only to incorporate **Sharda Acetochlor 32.6% + Atrazine 24.4% SE** after application. After **Sharda Acetochlor 32.6% + Atrazine 24.4% SE** has been applied, a sprinkler irrigation system set to deliver 0.25 - 0.75" of water per acre may be used to incorporate the product. Using more than 0.75" of water could result in reduced performance. On sandy soils low in organic matter, use no more than 0.5" of water. Do not use flood irrigation to apply or incorporate **Sharda Acetochlor 32.6% + Atrazine 24.4% SE**.

#### **Planting**

Planting must be done as close to the time of application of **Sharda Acetochlor 32.6% + Atrazine 24.4% SE** as possible. This allows **Sharda Acetochlor 32.6% + Atrazine 24.4% SE** to provide effective weed control during the time it is most critical in the production of corn.

#### Cultivation

Delay cultivation as long as possible. If weeds develop, a shallow cultivation or rotary hoeing will generally result in improved weed control. If **Sharda Acetochlor 32.6% + Atrazine 24.4% SE** was incorporated, cultivate to a depth of less than half the depth of incorporation.

If cultivation is necessary due to soil crusting, compaction, or escaped weeds, adjust equipment to run shallow and minimize soil movement. This will decrease the possibility of diluting or moving the herbicide from the weed control zone.

#### **Use Rates in Conventional Tillage Systems**

The following use rates are for pre-plant incorporated, pre-emergence, and early post-emergence applications (refer to **Application Timing and Methods** section). Refer to Table 2 if no-till applications are made or application is made more than 14 days before planting under conventional tillage.

Table 1. Sharda Acetochlor 32.6% + Atrazine 24.4% SE Use Rates (Qt./Acre) by Soil Texture and Organic Matter Content in Conventional Tillage Systems

Soil Texture	Soil Organic Matter Content		
3011 Texture	Less than 3%	3% or Greater	
Coarse	2.2 - 2.4	2.4 - 2.6	
Medium	2.4 - 2.8	2.6 - 2.8	

		1 466 11 01 19			
Fine	2.6 - 3.0*	2.6 - 3.4*			
*On highly gradible sails with less than 30% plant residue, do not apply more than 2.8 gts, per acre					

**Organic Matter:** If the organic matter content of the soil is at the lower end of the range, use the lower rates in the rate range provided in Table 1. If the organic matter content is at the upper end of the range, use the higher rates.

**Weed Infestation:** If the weed infestation is lighter, use a rate at the lower end of the rate range for the soil texture and organic matter content. If the weed infestation is heavier, use the higher rates in the rate range for the soil conditions.

#### **Use Rates for Reduced Tillage Systems**

**Sharda Acetochlor 32.6% + Atrazine 24.4% SE** may be used in reduced or no-tillage systems. Applications may be made from up to 30 days before planting or after planting but before the corn emerges. Optimal weed control will be obtained when applications are made as close to planting as possible but before the corn emerges. It is recommended that a burndown herbicide such as Durango DMA or 2,4-D be tank mixed with **Sharda Acetochlor 32.6% + Atrazine 24.4% SE** in reduced or no-tillage systems to control emerged weeds.

Table 2. Sharda Acetochlor 32.6% + Atrazine 24.4% SE Use Rates\* (Qt./Acre) by Soil Texture in Reduced or No-Tillage Systems

	Time of Application Relative to Planting						
Soil Texture	Greater Than 14 Days Before Planting	Less Than 14 Days Before Planting or After Planting But Prior to Corn Emergence	After Planting and/or Corn Emergence				
Coarse	Do not apply more than 14 days before planting on coarse-textured soils.	2.2 - 2.6	2.2 - 2.6				
Medium	2.4 - 3.4	2.4 - 2.8	2.4 - 2.8				
Fine	2.8 - 3.4	2.6 - 3.4	2.6 - 3.4				

<sup>\*</sup>Rates are for single applications. Split applications of **Sharda Acetochlor 32.6% + Atrazine 24.4% SE** may be used; apply at least 60% of the specified rate up to 30 days before planting and the remaining balance up to 40% at planting.

#### **Band Applications**

For band applications, use row and band width measurements (inches) to calculate the amount of **Sharda Acetochlor 32.6% + Atrazine 24.4% SE** to be applied per acre as follows:

Band Width in Inches

Row Width in Inches

X Rate per Acre for a Broadcast Treatment = Amount of Sharda Acetochlor 32.6% + Atrazine 24.4% SE to Apply per Acre

#### WEEDS CONTROLLED

Sharda Acetochlor 32.6% + Atrazine 24.4% SE applied as directed in this label will control or partially control the weeds listed in Table 3. Additional weeds may be controlled with tank mixes. Refer to the "Sharda Acetochlor 32.6% + Atrazine 24.4% SE Tank Mix Combinations" section of this label for tank mix directions. 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. Sharda Acetochlor 32.6% + Atrazine 24.4% SE may be tank mixed with any other registered corn product as long as compatibility is verified and tank mixing is not prohibited by the tank mix product label. Note: This product contains atrazine and may not control weeds that are known or suspected to be triazine-resistant.

Table 3. Weeds Controlled or Partially Controlled by Sharda Acetochlor 32.6% + Atrazine 24.4% SE at Specified Use Rates

BROADLEAVES		GRASSES		SEDGES		
Beggarweed, Florida	С	Barnyardgrass	С	Nutsedge, Yellow <sup>1,3</sup>	С	
Carpetweed	С	Crabgrass spp.	С		•	
Cocklebur <sup>1</sup>	PC	Crowfootgrass	С			
Galinsoga	С	Cupgrass, southwestern	С			
Jimsonweed	С	Cupgrass, woolly	PC			
Kochia	PC	Foxtail, giant	С			
Lambsquarters, common	С	Foxtail, green	С			
Morningglory spp.	С	Foxtail, robust (purple, white)	С			
Nightshade, black	С	Foxtail, yellow	С			
Nightshade, hairy	С	Goosegrass	С			
Pigweed, redroot	С	Johnsongrass, seedling	PC			
Purslane, common	С	Millet, foxtail	С			
Pusley, Florida	С	Millet, wild proso	PC			
Ragweed, common	С	Panicum, browntop	С			
Ragweed, giant	PC	Panicum, fall	С			
Sicklepod	С	Panicum, Texas <sup>2</sup>	С			
Sida, prickly	С	Rice, red	С			
Smartweed spp.	С	Sandbur, field	PC			
Velvetleaf <sup>1</sup>	PC	Shattercane	PC			
Waterhemp, tall	С	Signalgrass, broadleaf <sup>2</sup>	С			

			1 age 12 01 13
	Sprangletop, red	С	
	Witchgrass	С	
C - Controlled			

#### C = Controlled

PC = Partial Control

<sup>3</sup>Yellow nutsedge requires a minimum of 2.7 qts. per acre. Incorporation will provide improved control.

#### Sharda Acetochlor 32.6% + Atrazine 24.4% SE Tank Mix Combinations

When tank mixing or sequentially applying atrazine or simazine or products containing either a.i. to corn, the total pounds of simazine and/or atrazine applied (lb. a.i./A) must not exceed 2.5 lbs. of a.i. per year.

For all applications, do not exceed the maximum rate of acetochlor as specified in the **Maximum Acetochlor Application Rates per Calendar Year** section of this label.

#### **Use of Spray Adjuvants**

Sharda Acetochlor 32.6% + Atrazine 24.4% SE is a pre-emergence herbicide for which spray adjuvants have little or no effect on performance. However, several herbicides used in tank mixtures with Sharda Acetochlor 32.6% + Atrazine 24.4% SE require use of adjuvants to aid in the burndown of emerged weeds. Use only those adjuvants specified on tank mix product labels and approved for agricultural crop use. Adjuvants and/or low rate liquid fertilizers (28%, 30%, or 32% UAN) or ammonium sulfate (AMS) may be used with tank mixes applied pre-plant or pre-emergence to the crop. Note: Do not use liquid fertilizer as the carrier when Sharda Acetochlor 32.6% + Atrazine 24.4% SE is applied post-emergence to corn as severe injury may result. The addition of liquid fertilizers used as adjuvants with Sharda Acetochlor 32.6% + Atrazine 24.4% SE tank mixes applied post-emergence to corn under environmental stress conditions may result in significant crop injury and must be avoided if the risk of crop injury is unacceptable.

#### **Pre-Emergence Tank Mix Combinations**

Tank mix combinations may be used in either conventional, reduced or no-till systems and be applied by the same methods and at the same timings as **Sharda Acetochlor 32.6% + Atrazine 24.4% SE** unless otherwise specified in the tank mix product label.

When tank mixing **Sharda Acetochlor 32.6% + Atrazine 24.4% SE** with atrazine, do not exceed the maximum allowable rate of atrazine in your county or State. In some atrazine management areas, atrazine is more restricted. Consult your county extension office or State university for further information.

#### Conventional Tillage Corn (Sharda Acetochlor 32.6% + Atrazine 24.4% SE plus):

	• Pre-plant surface, pre-plant incorporated, pre-emergence. If emerged weeds are greater than 1.5" tall at the time of application, add an appropriate post-emergence herbicide.
Atrazine 4L	<ul> <li>Longer growing season areas.</li> <li>High rainfall areas.</li> <li>Heavy broadleaf weed pressure.</li> </ul>
Balance Pro®	<ul> <li>Not labeled in all states; please refer to the Balance Pro label for precautionary statements, directions for use, geographic and other restrictions.</li> <li>Field corn only.</li> <li>Refer to the use rates section for Sharda Acetochlor 32.6% + Atrazine 24.4% SE for minimum use rates.</li> </ul>
Hornet® WDG	• Tank mixing with Hornet® WDG herbicide provides consistent control of velvetleaf, lambsquarters, pigweed species, waterhemp, and triazine-resistant varieties of these species. Will also provide improved control of cocklebur, common ragweed, giant ragweed, common sunflower, and jimsonweed.
Princep® 4L	Improve crabgrass or fall panicum control.
Python® WDG	• Tank mixing with Python® WDG herbicide provides consistent control of velvetleaf, lambsquarters, pigweed species, waterhemp, and triazine-resistant varieties of these species.
Surpass® EC	Tank mix for enhanced grass and nutsedge control.

Formulations that are not listed may be used: Perform a compatibility test and check the label of the tank mix product label for application rates, applicable use directions, precautions, and limitations.

Reduced or No-Tillage Corn (Sharda Acetochlor 32.6% + Atrazine 24.4% SE plus):

Tank Mix Herbicide*	Comments
Atrazine 4L	<ul> <li>Longer growing season areas.</li> <li>High rainfall areas.</li> <li>Heavy broadleaf weed pressure.</li> <li>If emerged weeds are greater than 1.5" tall at the time of application, add an appropriate postemergence herbicide.</li> </ul>
Balance Pro®	<ul> <li>Not labeled in all states; refer to the label for Balance Pro label for precautionary statements, directions for use, geographic and other use restrictions.</li> <li>Field corn only.</li> </ul>

<sup>&</sup>lt;sup>1</sup>Activity may be reduced under dry conditions or following early (more than 14 days) pre-plant applications. Sequential herbicides or additional atrazine may be needed for complete control.

<sup>&</sup>lt;sup>2</sup>Best control is achieved when **Sharda Acetochlor 32.6% + Atrazine 24.4% SE** is applied within 5 days of planting and rainfall occurs shortly after application or mechanical incorporation is used to activate the herbicide. If rainfall does not occur within 7 days after application, shallow cultivation will enhance activity. Excessive rainfall after application may reduce control. Under adverse weather conditions and/or heavy infestations, a cultivation or follow-up herbicide may be needed.

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	• Refer to use rate section for <b>Sharda Acetochlor 32.6% + Atrazine 24.4% SE</b> for minimum use rates.	
Banvel®/Clarity®	Apply pre-plant or pre-emergence in reduced/no-till systems for burndown of existing weeds.	
Marksman®	Pre-emergence on all soils; medium and fine-textured with >2% OM.	
Durango® DMA, Roundup WeatherMAX®, Touchdown®	Burndown existing weeds.	
Gramoxone Inteon®	Control annuals, suppress perennials.	
Pendimax®/Prowl®	• Pre-emergence to early post-emergence (up to 3" tall corn) but before weeds are more than 1" tall.	
Princep® 4L	Improve crabgrass or fall panicum control.	
Surpass® EC	Enhanced grass and nutsedge control.	
2,4-D	Burndown existing weeds.	
*Formulation above the Bodies of Defense of the State of the Laboratory of the Labor		

<sup>\*</sup>Formulations that are not listed may be used: Perform a compatibility test and check the label of the tank mix product label for application rates, applicable use directions, precautions, and limitations.

#### Sharda Acetochlor 32.6% + Atrazine 24.4% SE and Durango DMA, 2,4-D

In reduced or no-tillage corn, Durango® DMA, Roundup WeatherMAX®, Gramoxone Inteon®, Touchdown®, and/or 2,4-D can be used to burn down existing weeds. Burndown herbicides must be applied to emerged weeds when they are small; weeds less than 6" in height are easiest to control. Consult the burndown product labels for further information on weeds controlled.

#### **Post-Emergence Tank Mix Combinations**

Sharda Acetochlor 32.6% + Atrazine 24.4% SE may be applied before, with, or following the use of one or more of the following herbicides: Accent<sup>®</sup>, Aim<sup>®</sup>, atrazine, Banvel<sup>®</sup>, Basis<sup>®</sup>, Basis Gold<sup>®</sup>, Beacon<sup>®</sup>, Buctril<sup>®</sup>, Buctril<sup>®</sup>/atrazine, Clarity<sup>®</sup>, Distinct<sup>®</sup>, Hornet<sup>®</sup> WDG, Liberty®, Lightning®, Marksman®, Peak®, Permit®, Prowl®, Pendimax®, Pursuit®, Shotgun®, Spirit®, and Steadfast®. See the tank mixture product label(s) regarding use directions, precautions and restrictions, and the list of weeds controlled. Sharda Acetochlor 32.6% + Atrazine 24.4% SE may be tank mixed with any product approved for use on corn unless it is prohibited on the tank mix product label. Note: Do not use liquid fertilizer as the carrier when Sharda Acetochlor 32.6% + Atrazine 24.4% SE is applied postemergence to corn as severe injury may result. The addition of liquid fertilizers used as adjuvants with Sharda Acetochlor 32.6% + Atrazine 24.4% SE tank mixes applied post-emergence to corn under environmental stress conditions may result in significant crop injury and must be avoided if the risk of crop injury is unacceptable.

When tank mixing, refer to the tank mix product label and follow the additional use directions given in this table. Sharda Acetochlor 32.6% + Atrazine 24.4% SE can be applied to corn up to 11" tall.

Post-Emergence Tank Mixes (Sharda Acetochlor 32.6% + Atrazine 24.4% SE plus):

Tank Mix Herbicide	Rate/Acre	Comments
Hornet® WDG	refer to product label	Always add NIS at 0.25% v/v or COC at 1% v/v.
Aim® herbicide	refer to product label	Always add a NIS at 0.25% v/v.
Banvel® Clarity Marksman®	refer to product labels	<ul> <li>Early post-emergence up to 8" tall corn on all soils. If grasses are more than 2-leaf stage, combine with another herbicide to control these weeds.</li> <li>The maximum atrazine application rate for corn is 2.5 lbs. a.i. per calendar year or 2.0 lbs. atrazine a.i. for post-emergence application if no atrazine was applied preemergence.</li> </ul>
Buctril® Buctril®/atrazine Shotgun® herbicide	refer to product labels	<ul> <li>Refer to product label for use directions.</li> <li>Refer to label for Shotgun herbicide for timing and use directions.</li> </ul>
Atrazine	refer to product label	<ul> <li>Pre-plant surface, pre-plant incorporated, pre-emergence or early post-emergence (up to 8" tall corn).</li> <li>If emerged weeds are greater than 1.5" tall at the time of application, add an appropriate post-emergence herbicide. The maximum atrazine application rate for corn is 2.5 lbs. atrazine a.i. per acre per calendar year.</li> </ul>
Distinct®	refer to product label	<ul> <li>Always add a NIS at 0.25% v/v and 1.25% UAN.</li> <li>Can be applied up to 10-inch corn.</li> </ul>
Liberty®	refer to product label	• For use on liberty tolerant corn only. Apply to grass and broadleaves up to 6" tall. Do not add additional surfactant.
Lightning®	refer to product label	• For use on Clearfield corn only. Use a NIS at 0.25% v/v and a liquid nitrogen fertilizer at 1 - 2 qts. per acre or ammonium sulfate at 2.5 lbs. per acre.
Pendimax®/Prowl®	refer to product labels	• Pre-emergence to early post-emergence (up to 3" tall corn) but before weeds are more than 1" tall.
Pursuit® 2.5L Pursuit® 70DG	refer to product labels	<ul> <li>Use only on Clearfield varieties.</li> <li>Apply pre-plant surface, pre-plant incorporated, pre-emergence or early post-emergence (up to 3" tall weeds).</li> </ul>
Resource®	refer to product label	<ul> <li>Apply to weeds less than 5" tall. Add a crop oil concentrate at 1 - 2 pts. per acre and either 28% nitrogen at 2% v/v or ammonium sulfate at 2.5 lbs. per acre. May cause some burn or spotting to corn leaves.</li> </ul>
Spirit <sup>®</sup>	refer to product label	<ul> <li>Always add crop oil concentrate at 1% v/v.</li> <li>See label for geographic restrictions.</li> </ul>
2,4-D Ester	refer to product label	Apply pre-plant surface or pre-emergence to control emerged broadleaf weeds in corn.

Accent® 75WDG Beacon® 75WDG

Basis®

Steadfast®

Minimum Sharda Acetochlor 32.6% + Atrazine 24.4% SE use rates (qts./acre):			
Soil Type	Organic Matter		
3011 Type	<3%	3-7%	>7%
Coarse	1.8	1.8	2.4
Medium	1.8	1.8 - 2.4	2.6 - 2.8
Fine	1.8	1.8 - 2.4	2.8

- Always add NIS at 0.25% (v/v); and in addition, if applied in dry conditions, add 4% (v/v) clear liquid fertilizer.
- Banvel, Clarity, Marksman, Buctril, Buctril/atrazine may be added to this mixture to provide burndown and residual control of broadleaf weeds.

•	Minimum Sharda Acetochlor 32.6% + Atrazine 24.4% SE use rates (qts./acre)					
		Organic Matter				

Basis Gold®	refer to product label	

- Organic Matter Soil Type >7% <3% 3-7% 2.4 Coarse 1.8 1.8 Medium 1.8 1.8 - 2.4 2.6 - 2.8 Fine 1.8 1.8 - 2.4
- Always add crop oil concentrate at 1.0% v/v or under dry arid conditions, 2.0% v/v and 28% liquid nitrogen at 2 qts. per acre or ammonium sulfate at 2 lbs. per acre.
- Banvel, Clarity, Marksman, Buctril, or Tough herbicide may be added to this
  mixture to provide burndown and residual control of broadleaf weeds.
- The maximum atrazine application rate for corn is 2.5 lbs. a.i. per calendar year or 2.0 lbs. atrazine a.i. for post-emergence application if no atrazine was applied preemergence.

#### STORAGE AND DISPOSAL

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

refer to product labels

**PESTICIDE STORAGE:** Store in original container only. Keep container closed when not in use. Do not store near food or feed. In case of spill or leak on floor or paved surfaces, soak up with vermiculite, earth, or synthetic absorbent.

**PESTICIDE DISPOSAL:** Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency or the Hazardous Waste Representative at the nearest EPA Regional Office for guidance.

**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 or by other procedures allowed by State and local authorities.

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.

#### 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

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