



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY
AND POLLUTION PREVENTION

November 10, 2021

Ogongi Ogongi
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 46.3% + ATRAZINE 18.3% SE
EPA Registration Number: 83529-116
Application Dates: December 9, 2020 and August 11, 2021
Decision Numbers: 568647 and 577777

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 Final Decisions and with the atrazine technical registrants' commitments for the ESA Biological Evaluation. The Agency has concluded that your submission is acceptable. The label referred to above, submitted in connection with registration under FIFRA, as amended, is acceptable.

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

A stamped copy of your labeling is enclosed for your records. This labeling supersedes all previously accepted labeling. You must submit one copy of the final printed labeling before you release the product for shipment with the new labeling. In accordance with 40 CFR 152.130(c), you may distribute or sell this product under the previously approved labeling for 18 months from the date of this letter. After 18 months, you may only

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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 Natalie Bray at bray.natalie@epa.gov.

Sincerely,

A handwritten signature in blue ink, appearing to read "Linda Arrington", with a long horizontal flourish extending to the right.

Linda Arrington, Branch Chief
Risk Management and Implementation Branch 4
Pesticide Re-Evaluation Division
Office of Pesticide Programs

Enclosure

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.

ACETOCHLOR	GROUP	15	HERBICIDE
ATRAZINE	GROUP	5	HERBICIDE

Sharda Acetochlor 46.3% + Atrazine 18.3% SE ABN: Electra Plus

A Pre-Emergence Herbicide for Weed Control Use in Corn (Field, Production Seed, Silage, Sweet, and Popcorn).

ACTIVE INGREDIENTS*:	WT. BY %
*Acetochlor, 2-chloro-N-ethoxymethyl-N-(2-ethyl-6-methylphenyl)acetamide	46.30%
**Atrazine, 2-chloro-4-(ethylamino)-6-(isopropylamino)-s-triazine	17.97%
Related Triazines.....	0.34%
OTHER INGREDIENTS:	35.39%
TOTAL:	100.00%

*Contains 4.3 lbs. per U.S. gal. of the active ingredient acetochlor.
 **Contains 1.7 lbs. per U.S. gal. of the active ingredient atrazine and related compounds.

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.)

FIRST AID	
IF SWALLOWED:	<ul style="list-style-type: none"> • Call a poison control center or doctor immediately for treatment advice. • Have person sip a glass of water if able to swallow. • Do not induce vomiting unless told to do so by a poison control center or doctor. • Do not give anything by mouth to an unconscious person.
IF ON SKIN OR CLOTHING:	<ul style="list-style-type: none"> • 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.
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 .	

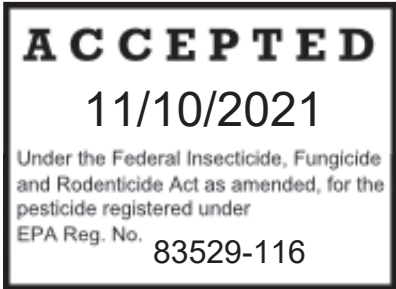
[Optional referral statements when booklets and container labels are used:
 See label booklet for [complete] [additional] [First Aid], [Precautionary Statements], [Directions For Use], and [Storage and Disposal].]

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EPA Est. No. XXXXX-XX-XXX



Net Contents: _____ [Gallons/Liters]



PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION

Harmful if swallowed. Harmful if absorbed through skin. Avoid contact with skin, eyes, or clothing. Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove and wash contaminated clothing before reuse.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

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

- Long-sleeved shirt and long pants
- Waterproof gloves
- 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 system is being used, handlers 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 thoroughly 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 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 highwater 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.

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.

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.

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

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.

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."

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.

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.

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.

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.

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 made of 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

PRODUCT INFORMATION

Sharda Acetochlor 46.3% + Atrazine 18.3% SE is an herbicide for use in corn. **Sharda Acetochlor 46.3% + Atrazine 18.3% SE** will provide control of yellow nutsedge and the annual grasses and broadleaf weeds listed in the “**WEEDS CONTROLLED**” section of this label. Used alone, this product will not provide control of emerged seedlings. Applications may be made either as surface applied before or after planting or after crop emergence. This product may also be shallowly incorporated prior to planting to blend the herbicide treatment into the upper 1 - 2 inches of soil. The seedbed must be fine, firm, and free of clods and trash, except for minimum or conservation tillage systems.

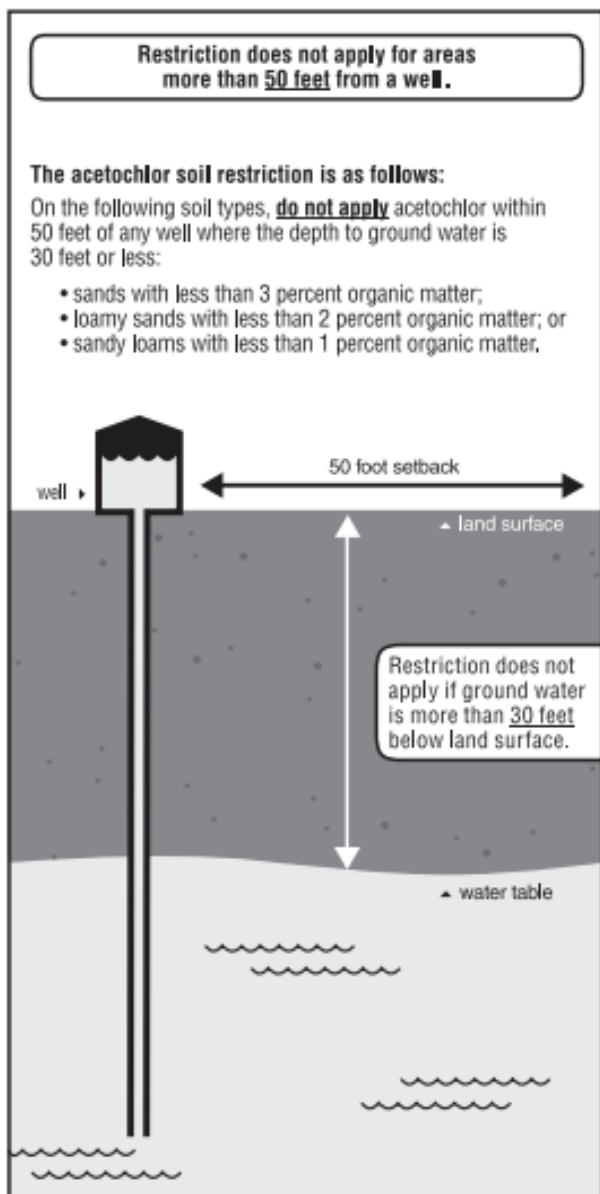
It is the pesticide user’s responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary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

NOTE: CORN (ALL TYPES INCLUDING SWEET CORN), MILO (SORGHUM), OR SOYBEANS 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.

The use rates of **Sharda Acetochlor 46.3% + Atrazine 18.3% SE** and the other herbicides labeled for use in tank mixtures with this product vary with soil type. Applicators must evaluate soil conditions and determine soil type prior to application. Unless soil texture is specifically identified, use rates in this label refer to 3 soil type groups: fine, medium, and coarse and use rates should be determined based on these classifications.

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.
- 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).
- 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. See the figure for additional clarification.
- **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.
- 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 via mechanically pressurized handguns to sweet corn.
- 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:
 - Do not treat powdery dry or light sandy soils when conditions are favorable for wind erosion. Under these conditions, the soil surface must 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.
- Refer to the spray drift section to minimize spray drift to non-target areas.
- 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 perennial or 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.

ROTATIONAL CROP RESTRICTIONS

- If a crop treated with this product is lost, field corn, seed corn, silage corn, popcorn, or sweet corn may be replanted immediately. Do not exceed a total of 3.0 pounds per acre of acetochlor if additional product is applied.
- If applied after June 10th, do not rotate to crops other than corn or sorghum the next year, or crop injury may occur.
- Rotate the next season to the following crops: corn (all types), cotton, sorghum, or soybeans. Injury from atrazine may occur to soybeans planted the year following application on soils having a calcareous subsurface layer.
- In the High Plains and Intermountain regions of the West where rainfall is sparse and erratic or irrigation is required, use only when corn or sorghum is to follow corn.
- In Eastern parts of the Dakotas, Kansas, western Minnesota and Nebraska, do not rotate to soybeans if the rate applied to corn was more than 2.0 pounds active ingredient equivalent of atrazine or soybean injury may occur.
- Do not plant sugar beets, sunflower, potatoes, tobacco, dry beans or peas, spring-seeded small grains, or small-seeded legumes the year following application, or injury from atrazine may occur.

ROTATION TO NON-FOOD WINTER COVER CROPS

Only non-food or non-feed winter cover crops (with the exception of wheat) may be planted following harvest of food crops that have been treated with **Sharda Acetochlor 46.3% + Atrazine 18.3% SE**. 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.

WEED RESISTANCE MANAGEMENT

Sharda Acetochlor 46.3% + Atrazine 18.3% 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 46.3% + Atrazine 18.3% 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 46.3% + Atrazine 18.3% 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. 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 46.3% + Atrazine 18.3% 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 46.3% + Atrazine 18.3% 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.

MANDATORY SPRAY DRIFT MANAGEMENT**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 select a nozzle and pressure that deliver coarse or coarser droplets in accordance with American Society of Agricultural & Biological Engineers Standard 572 (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.

MIXING, SPRAYING, AND HANDLING INSTRUCTIONS

NOTE: Direct contact or exposure to this product or spray mixtures of this product must be minimized. The following instructions for transfer, mixing, cleaning, or repairing equipment must 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 must be transferred from these containers to the mix or spray tank using pumps or transfer probes. The probe or pump must 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 must be taken to minimize exposure during cleaning and repair to transfer systems application equipment. Whenever possible, these systems or equipment must be rinsed prior to being cleaned or repaired. When repairs must be made during transfer or application, the equipment must be shut down, and special care taken to avoid contact with the pesticide.

Sprayer Compatibility

Always determine 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 of spraying. See the “**Standard Sprayable Fluid Fertilizer Compatibility Test**” section in this label to determine the compatibility of this product and the tank mixture partner(s) specified for use with sprayable fluid fertilizer carrier. 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.

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 glyphosate or paraquat are 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 during any time, thorough agitation is required to resuspend the mixture prior to resuming spray application. Keep by-pass line on or near bottom of tank to minimize foaming. Screen size in nozzle or line strainers must 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.

Materials Needed:

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.

Allow five minutes after the final addition and mixing, then 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 results in the jar labeled “With” (the compatibility agent added), the liquid fertilizer and the herbicide(s) must 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.

Allow both jars to stand and be observed periodically for 30 minutes. 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) must be premixed with water before adding to the spray tank.

APPLICATION SYSTEMS**Ground Broadcast Applications**

Make application of **Sharda Acetochlor 46.3% + Atrazine 18.3% SE** 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 detailed for the crop to be treated in the “**DIRECTIONS FOR USE**” section of this label. Do not make application 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:

$\frac{\text{Band Width in Inches}}{\text{Row Width in Inches}}$	X	Broadcast Rate per Acre	=	Band Rate per Acre
$\frac{\text{Band Width in Inches}}{\text{Row Width in Inches}}$	X	Broadcast Volume per Acre	=	Band Volume per Acre

Application by Impregnated Dry Bulk Granular Fertilizers

The herbicide-fertilizer impregnation process must be completed only by commercial fertilizer or chemical dealerships properly equipped for this procedure. Dry bulk fertilizer may be impregnated with **Sharda Acetochlor 46.3% + Atrazine 18.3% SE** or the tank mixtures of **Sharda Acetochlor 46.3% + Atrazine 18.3% SE** plus atrazine on corn. This product and these tank mixtures must be applied with 200 to 450 lbs. of dry bulk fertilizer per acre and shallowly incorporated within 14 days before planting. On medium- and fine-textured soils in areas where soil incorporation is not planned, i.e., reduced tillage situations or in some conventional tillage situations, treatment can be made up to 30 days prior to planting to allow moisture to move the herbicide-fertilizer mixture into the soil. On coarse-textured soils, treatment can be made up to 14 days prior to planting. The herbicide must be applied as directed in this label for the crop, weed and soil type treated. See the table for broadcast rate per acre to determine the application rate per acre for the herbicide treatment to be made.

Use Restrictions:

- Impregnation of bulk fertilizer is restricted to commercial facilities. On-farm fertilizer impregnation is prohibited. No more than 500 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.
- During impregnation of dry bulk commercial fertilizer, do not exceed 340 tons per worker per day for no more than 30 days per calendar year for use on corn.
- The commercial facility impregnating the dry bulk fertilizer must inform, in writing, the use (applicator) of the dry bulk fertilizer that:
 - Applicators must wear long-sleeved shirt, long pants, shoes, and socks.
 - Do not enter or allow others to enter the treated areas (except those involved in the watering) during the restricted-entry interval (REI) of 12 hours.

The table below provides a reference to determine the amount of LIQUID herbicide to be mixed per ton of dry bulk fertilizer by use rate.

Quarts of Liquid Herbicide/Acre

Fertilizer Rate (Lbs./Acre)	Acres Covered (per Ton)	1.5 Qts./Acre	1.8 Qts./Acre	2.3 Qts./Acre
		Quarts Herbicide/Ton Dry Bulk Fertilizer		
200	10	15	18	23
250	8	12	14.4	18.6
300	6.7	10.1	12.1	15.5

350	5.7	8.6	10.2	13.3
400	5	7.5	9	11.7
450	4.5	6.8	8.1	10.4

To determine the amount of herbicide needed for rates not included in the preceding table, use the following formula:

$$\frac{\text{Quarts per Acre X 2,000}}{\text{Pounds of Fertilizer per Acre}} = \frac{\text{Quarts of Herbicide per Ton of Dry Bulk Fertilizer}}{\text{Pounds of Fertilizer per Acre}}$$

Mix and blend the dry fertilizer and herbicide mixture in a closed rotary drum-type mixture allowing sufficient time to ensure uniform coverage. Use at least one ton of dry fertilizer per mixing operation. Inject the herbicide into the drum over a minimum of a 2-minute period and allow at least 2 additional minutes mixing time to ensure uniformity. The nozzle used to spray the herbicide treatment must be placed inside the mixer to provide uniform spray coverage of the tumbling fertilizer.

If the dry fertilizer used has inadequate absorptive capacity, use a higher absorptive material such as Agsorb or Micro-Cel, to provide a free-flowing mixture.

The following table provides a partial list of dry fertilizers that may be impregnated with **Sharda Acetochlor 46.3% + Atrazine 18.3% SE** or tank mixtures of **Sharda Acetochlor 46.3% + Atrazine 18.3% SE** with other herbicides:

Fertilizer	N	P	K
Ammonium Phosphate-Sulfate	16	20	0
Ammonium Sulfate	21	0	0
Diammonium Phosphate	18	46	0
Potassium Chloride	0	0	60
Potassium Sulfate	0	0	52
Urea ¹	46	0	0

¹Some ureas may be phytotoxic when application is made to corn. Use only urea rates known to be safe for corn application.

Use Restriction: Do not impregnate this product or tank mixtures of this product with other herbicides on fertilizers that contain ammonium nitrate, potassium nitrate, or sodium nitrate.

Spread the herbicide-dry fertilizer mixture uniformly with a properly calibrated applicator: dribble, pneumatic (air flow) or spin. When using spin applicators, fertilizers impregnated with this product or tank mixtures of this product with other herbicides must be spread at half-rate and overlapped 100% to obtain full rate and uniform distribution. Non-uniform spreading of the fertilizer-herbicide mixture may result in unsatisfactory weed control or crop injury.

USE RESTRICTIONS CORN:

- Not for Sale, Sale Into, Distribution and/or Use in Nassau and Suffolk Counties of New York State.
- Pre-Harvest Interval (PHI): For field corn forage use, allow 60-day pre-harvest interval.
- Pre-Harvest Interval (PHI): For sweet corn forage use, allow 45-day pre-harvest interval.
- Do not apply more than 2.7 quarts of **Sharda Acetochlor 46.3% + Atrazine 18.3% SE** per acre per year.
- Do not exceed a total of 3.0 lbs. a.i. acetochlor per acre per year.
- Do not apply more than two applications per acre per year.
- **The Maximum Atrazine Broadcast Application Rates for Corn:**
 - If no atrazine application was made before corn 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 must not exceed 2.5 lbs. a.i. per acre per year.
 - Do not apply more than 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
 - Do not apply more than 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.
 - When tank mixing or sequentially applying, atrazine or products containing atrazine to corn, the total pounds atrazine applied (pounds active ingredient per acre) must not exceed 2.5 pounds active ingredient per year.

USE PRECAUTIONS CORN:

- Use of this product not consistent with this label may result in injury to persons, animals or crops, or other unintended consequences.
- Flush sprayer with clean water after use.

APPLICATION TIMING AND METHODS

Early Pre-Plant Surface Applications

Application of **Sharda Acetochlor 46.3% + Atrazine 18.3% SE** and some labeled tank mixtures with this product may be made in no-till and other conservation tillage systems prior to weed emergence and up to 45 days before planting field corn or silage corn. Split applications can be made 30 to 45 days prior to planting with 60% of the labeled 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, make application of 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

Application of **Sharda Acetochlor 46.3% + Atrazine 18.3% SE** and many of the labeled tank mixtures may be mixed into the soil using shallow incorporation equipment any time within 14 days prior to planting. Make application at the specified rate to the soil surface as a broadcast application. Either existing soil moisture or subsequent precipitation or irrigation is needed to bring incorporated herbicide treatments into contact with germinating weed seedlings. If weeds emerge following treatment, rotary hoe or shallowly cultivate immediately to improve performance.

Shallowly incorporate the treatment into the upper 1 - 2" of the soil. Equipment must be operated at manufacturer's designed speed for incorporation to ensure adequate mixing and distribution of the herbicide treatment in the soil. Equipment design including any drag attachments must be adequate to avoid soil ridging which may result in streaked or reduced weed control. Equipment must be set to work the soil NO DEEPER THAN 4 INCHES. Soil conditions, including moisture content and crop residue levels, must be suitable to allow thorough and uniform mixing.

Pre-Emergence Surface Applications

Application of **Sharda Acetochlor 46.3% + Atrazine 18.3% SE** and all labeled tank mixtures may be made to the soil surface after planting and prior to either crop or weed emergence. Make application within 5 days of last pre-plant tillage. If weeds emerge after treatment, or if treatment is made 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 ¼ - ¾ inch is normally adequate. Performance is improved when moisture is received within 7 days following application and before weed emergence. High intensity or excessive rainfall or excessive irrigation after application may reduce control.

Post-Emergence Surface Applications

Application of **Sharda Acetochlor 46.3% + Atrazine 18.3% SE** and certain tank mixtures may be made post-emergence until corn reaches 11" in height. Application must be made before the 2-leaf grass stage or in a tank mixture that controls emerged weeds. Read and follow all restrictions and directions on tank mix product labels. See the specific treatment intended in the "DIRECTIONS FOR USE" section of the label to determine if post-emergence applications to corn are recommended and determine the proper weed and corn 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 ¼ - ¾ inch is normally adequate. If weeds emerge after treatment, rotary hoe or shallowly cultivate to improve performance.

Use Restrictions:

- Do not make a post-emergence application to sweet corn.
- Do not make post-emergence surface applications using sprayable fluid fertilizer as the carrier.

Cultivation Information

Delay cultivation following treatment for as long as possible unless weeds or grasses emerge. Shallowly cultivate or rotary hoe immediately if weeds or grasses emerge. If cultivation is needed 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

Sharda Acetochlor 46.3% + Atrazine 18.3% SE alone will provide control of the weeds listed in the table below when application is made as directed under conditions described:

ANNUAL BROADLEAVES			
Common Name	Scientific Name	Common Name	Scientific Name
Beggarweed, Florida	<i>Desmodium tortuosum</i>	Mustard	<i>Brassica</i> spp.
Carpetweed	<i>Mollugo verticillata</i>	Nightshade, Black	<i>Solanum nigrum</i>
Cocklebur ¹	<i>Xanthium strumarium</i>	Nightshade, Hairy	<i>Solanum sarrachoides</i>
Galinsoga	<i>Galinsoga</i> spp.	Pigweed (Carelessweed)	<i>Amaranthus</i> spp.
Groundcherry, Annual	<i>Physalis</i> spp.	Purslane	<i>Portulaca oleracea</i>
Groundcherry, Cutleaf	<i>Physalis angulata</i>	Pusley, Florida	<i>Richardia scabra</i>
Henbit	<i>Lamium amplexicaule</i>	Ragweed, Common	<i>Ambrosia artemisiifolia</i>
Jimsonweed	<i>Datura stramonium</i>	Sida, Prickly; Teaweed	<i>Sida spinosa</i>
Kochia ²	<i>Kochia scoparia</i>	Smartweed	<i>Polygonum pennsylvanicum</i> <i>Polygonum persicaria</i>
Lambsquarters	<i>Chenopodium album</i>	Velvetleaf, Buttonweed ¹	<i>Abutilon theophrasti</i>
Morningglory, Annual ¹	<i>Ipomoea purpurea</i>	Waterhemp	<i>Amaranthus tuberculatus</i>
ANNUAL GRASSES			
Barnyardgrass	<i>Echinochloa crus-galli</i>	Panicum, Browntop	<i>Panicum fasciculatum</i>
Crabgrass	<i>Digitaria ischaemum</i> <i>Digitaria sanguinalis</i>	Panicum, Fall	<i>Panicum dichotomiflorum</i>

Cupgrass, Woolly ³	<i>Eriochloa villosa</i>	Rice, Red	<i>Oryza sativa</i>
Foxtail, Giant	<i>Setaria faberi</i>	Signalgrass, Broadleaf	<i>Brachiaria platyphylla</i>
Foxtail, Green; Robust Purple; Robust White	<i>Setaria viridis</i>	Sprangletop, Red	<i>Leptochloa filiformis</i>
Foxtail, Yellow	<i>Setaria lutescens</i>	Wheat, Volunteer	<i>Triticum aestivum</i>
Goosegrass	<i>Eleusine indica</i>	Witchgrass	<i>Panicum capillare</i>
Oat, Wild	<i>Avena fatua</i>		

SEDGE

Nutsedge, Yellow ⁴	<i>Cyperus esculentus</i>		
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¹Use the higher labeled rate in the rate range within each application table. Control of these weeds can be erratic especially under dry weather conditions. Control escaped weeds with cultivation or treatment of an EPA-registered post-emergence herbicide.

²If triazine-resistant biotypes are suspected, tank mixtures with triazine herbicides may require a post-sequential treatment of a non-triazine herbicide for control.

³Make application at 2.7 qts. of **Sharda Acetochlor 46.3% + Atrazine 18.3% SE** per acre to control this weed. Control of this weed can be erratic especially under dry weather conditions. Control escaped weeds with cultivation or treatment of an EPA-registered post-emergence herbicide.

⁴Pre-plant incorporate for control.

WEEDS PARTIALLY CONTROLLED

When application is made immediately after planting and within 5 days of last tillage, **Sharda Acetochlor 46.3% + Atrazine 18.3% SE** at 2.3 - 2.7 qts. per acre on a broadcast basis will reduce competition from the below hard-to-control weeds.

ANNUAL BROADLEAVES			
Common Name	Scientific Name	Common Name	Scientific Name
Ragweed, Giant	<i>Ambrosia trifida</i>	Sunflower, Common	<i>Helianthus annuus</i>
Sicklepod	<i>Cassia obtusifolia</i>		
ANNUAL GRASSES			
Johnsongrass, Seedling	<i>Sorghum halepense</i>	Sandbur; Grassbur	<i>Cenchrus incertus</i>
Millet, Proso	<i>Panicum miliaceum</i>	Shattercane; Wild Cane	<i>Sorghum bicolor</i>
Panicum, Texas	<i>Panicum texanum</i>		

NOTE: For hard-to-control weeds, additional amounts of acetochlor and/or atrazine may be added 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 qts. on medium- and fine-textured soils with 3% or greater organic matter content. For more consistent control of woolly cupgrass additional acetochlor may be applied so that the total acetochlor rate is 3.0 lbs. per acre. The following table shows the amounts of acetochlor and/or atrazine that can be added to specific treatment rates of this product.

Use Restriction: Do not use more than 2.7 qts. of this product per acre per calendar year.

Application of Sharda Acetochlor 46.3% + Atrazine 18.3% SE with the Addition of Acetochlor or Atrazine

Application Rates	Product Addition	
Sharda Acetochlor 46.3% + Atrazine 18.3% SE	Acetochlor	Atrazine
1.5 qts./acre	Refer to product label	Refer to product label
1.8 qts./acre	Refer to product label	Refer to product label
2.0 qts./acre	Refer to product label	Refer to product label

CONSERVATION OR MINIMUM TILLAGE SYSTEMS**Use Precautions:**

- Each section of this label provides use rates for **Sharda Acetochlor 46.3% + Atrazine 18.3% SE** and tank mixtures including this product. Applications, that are not consistent with this label, may result in unsatisfactory weed control, injury to crops, persons or animals, or other unintended consequences. See 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. 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 labeled 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.

Detailed information regarding "**Application Systems**" and "**APPLICATION TIMING AND METHODS**" must 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.

The tank mix recommendations in the "**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.

At-Planting Applications

When application is made as directed under the conditions described, the specified tank mixtures will provide control of listed emerged annual weeds, suppress listed emerged perennial weeds and provide pre-emergence control of listed 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 provide control of regrowth from perennial weeds.

Refer to 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 46.3% + Atrazine 18.3% SE and tank mixtures with simazine or imazethapyr can be tank mixed with glyphosate, paraquat and/or 2,4-D.

Make application of the specified tank mixtures with glyphosate 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 paraquat in 20 - 60 gals. of water or clear liquid fertilizer per acre immediately before, during or after planting, but **PRIOR TO 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, remove the glyphosate, paraquat or 2,4-D portion of these tank mixtures.

Control or Suppression of Emerged Weeds

USE PRECAUTIONS:

- 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 make application 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.

Glyphosate

Annual Weeds

Make application with glyphosate 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 glyphosate in the mixtures above and under these conditions will provide best control and reduce competition from emerged perennial grasses and broadleaf weeds.

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

Ammonium Sulfate

The addition of ammonium sulfate in the spray mixture may increase the performance of glyphosate 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 must 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, pre-dissolve 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 glyphosate products, refer to the specific label for restrictions. Do not reduce rates of glyphosate 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.

Paraquat

When used as directed, paraquat in a labeled tank mixture will provide control of listed emerged annual weeds and suppress listed emerged perennial weeds.

Broadcast Treatment

Make application of paraquat in these tank mixtures immediately prior to, during or after planting but **BEFORE CROP EMERGENCE**. As density of stubble, crop residue or weeds increase, spray gallonage must 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. SEE THE SPECIFIC PARAQUAT LABEL FOR PRECAUTIONARY STATEMENTS.

2,4-D

When used as directed, 2,4-D in labeled tank mixtures will provide control of listed emerged annual and perennial broadleaf weeds. For emerged weeds controlled, see the “**WEEDS CONTROLLED**” section of the label for 2,4-D.

Broadcast Treatment

Make application of 2,4-D (amine or low volatile ester) in the specified tank mixtures. Refer to product label for use rates and additional application information. Applications must be made 7 to 14 days prior to planting or 3 to 5 days after planting but **BEFORE CORN EMERGENCE**. As density of stubble, crop residue or weeds increase, spray gallonage must 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

A single or split application of **Sharda Acetochlor 46.3% + Atrazine 18.3% SE** will provide pre-emergence control or reduced competition of the annual grasses and broadleaf weeds listed in the “**WEEDS CONTROLLED**” section. If emerged weeds are present at the time of treatment, glyphosate, paraquat or 2,4-D may be added to **Sharda Acetochlor 46.3% + Atrazine 18.3% SE** 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. Observe all precautions and limitations on the labels for **Sharda Acetochlor 46.3% + Atrazine 18.3% SE**, glyphosate, paraquat, 2,4-D and other post-emergence herbicides before use of these products.

Use Restriction: DO NOT make application of tank mixtures containing glyphosate, paraquat or other contact herbicides by air.

Sharda Acetochlor 46.3% + Atrazine 18.3% SE

When applied in a single application or split application (alone or in a tank mix combination with simazine) or as a sequential application to simazine in early pre-plant programs 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 46.3% + Atrazine 18.3% SE**. Observe the directions for use, precautions, and restrictions on the label of the contact herbicide.

Application Systems

- **Ground:** Broadcast boom
- Dry Bulk Fertilizer Impregnation

Application Timing

- **Single Application:** Application of **Sharda Acetochlor 46.3% + Atrazine 18.3% SE** must be made less than 30 days prior to planting but before weed emergence. Applications on coarse soils must not be made more than 2 weeks before planting.
- **Split Application:** Apply 60% of the application rate as a split application before weed emergence and no more than 45 days before planting and the remaining 40% at or immediately following planting but before crop emergence.

Refer to the following table for broadcast rates per acre for single and split applications.

BROADCAST RATE PER ACRE	
Soil Texture	Sharda Acetochlor 46.3% + Atrazine 18.3% SE* (Qts./Acre)
Coarse Soils (Sand, Loamy Sand, Sandy Loam)	1.8
Medium Soils (Loam, Silt Loam, Silt, Sandy Clay Loam)	2.3
Fine Soils (Silty Clay Loam, Clay Loam, Sandy Clay, Silty Clay, Clay)	2.3

*In areas of heavy weed infestation use up to 2.7 quarts per acre on medium- and fine-textured soils.

To provide broad-spectrum weed control, both single and split applications of this product 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, apply a contact herbicide or perform tillage when possible to eliminate existing weeds.

Sharda Acetochlor 46.3% + Atrazine 18.3% SE following Simazine

Sequential Application

For control of fall panicum, crabgrass or broadleaf signalgrass, make application of **Sharda Acetochlor 46.3% + Atrazine 18.3% SE** following simazine. Make application of simazine according to product label and prior to weed emergence but no more than 45 days prior to planting. At or immediately following planting, but before crop emergence, make application of **Sharda Acetochlor 46.3% + Atrazine 18.3% SE** at the specified use rate.

If emerged weeds are present at planting, apply a contact herbicide or perform tillage when possible to eliminate existing weeds.

USE PRECAUTION: LAND TREATED WITH SIMAZINE MUST 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.

BROADCAST RATE PER ACRE	
Soil Texture	Sharda Acetochlor 46.3% + Atrazine 18.3% SE* (Qts./Acre)
Coarse Soils (Sand, Loamy Sand, Sandy Loam)	1.5 - 1.8
Medium Soils (Loam, Silt Loam, Silt, Sandy Clay Loam)	1.8 - 2.3
Fine Soils (Silty Clay Loam, Clay Loam, Sandy Clay, Silty Clay, Clay)	1.8 - 2.3

*Use the higher listed rates in the application rate ranges in areas of heavy weed infestation.

CONVENTIONAL TILLAGE SYSTEMS

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

Detailed information regarding “**Application Systems**” and “**APPLICATION TIMING AND METHODS**” must 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 46.3% + Atrazine 18.3% SE

Make application of **Sharda Acetochlor 46.3% + Atrazine 18.3% SE** 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.

Application Systems

- **Ground:** Broadcast boom; banded
- Dry Bulk Fertilizer Impregnation

Application Timing

- **Pre-Plant Incorporated, Pre-Emergence Surface**

Post-Emergence Surface

Add 2,4-D (refer to product label for use rates) as a tank-mix partner to aid in control of existing weeds. Some leaf burn to corn may occur occasionally but subsequent growth or yield should not be affected.

Use Precautions:

- DO NOT make post-emergence surface applications using sprayable fluid fertilizer as the carrier because severe crop injury may occur. Read and follow all labeled directions for use for 2,4-D.

BROADCAST RATE PER ACRE*	
Soil Texture	Sharda Acetochlor 46.3% + Atrazine 18.3% SE* (Qts./Acre)
Coarse Soils (Sand, Loamy Sand, Sandy Loam)	1.8
Medium Soils (Loam, Silt Loam, Silt, Sandy Clay Loam)	1.8 - 2.3
Fine Soils (Silty Clay Loam, Clay Loam, Sandy Clay, Silty Clay, Clay)	2.0 - 2.3

*In areas of heavy weed infestation use up to 2.7 quarts per acre on medium- and fine-textured soils.

Sharda Acetochlor 46.3% + Atrazine 18.3% SE plus Glyphosate on Glyphosate-Resistant Corn

This program may be used pre-emergence and post-emergence to glyphosate-resistant corn from seedling emergence until the corn reaches 11” in height. Refer to the glyphosate product label 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 A GLYPHOSATE TOLERANCE GENE.

Application Systems

- **Ground:** Broadcast boom

Application Timing

- **Pre-Emergence Surface**

Sequential Program

Application of **Sharda Acetochlor 46.3% + Atrazine 18.3% SE** may be made pre-emergence to glyphosate-resistant corn at 1.2 qts. per acre in a planned pre-emergence program followed by a glyphosate post-emergence sequential program.

Post-Emergence Surface

Sharda Acetochlor 46.3% + Atrazine 18.3% SE may be applied post-emergence to glyphosate-resistant corn from seedling emergence until the corn is 11” in height at 1.2 qts. per acre. Labeled use rates for tank-mix with glyphosate are defined in the table below. This tank mix must 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 listed rate of glyphosate.

BROADCAST RATE PER ACRE			
Soil Texture	Sharda Acetochlor 46.3% + Atrazine 18.3% SE (Qts./Acre)	Plus	Glyphosate (Qts./Acre)
Coarse Soils (Sand, Loamy Sand, Sandy Loam)	1.0 - 1.8		Per Labeled Rate.
Medium Soils (Loam, Silt Loam, Silt, Sandy Clay Loam)	1.0 - 2.3		
Fine Soils (Silty Clay Loam, Clay Loam, Sandy Clay, Silty Clay, Clay)	1.0 - 2.3		

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 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 46.3% + Atrazine 18.3% SE** may be tank-mixed with the following products for pre-emergence use in corn: 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 46.3% + Atrazine 18.3% SE** may be tank-mixed with the following products for post-emergence use in corn: 2,4-D, atrazine, carfentrazone-ethyl, clopyralid, dicamba, diflufenzopyr, flumetsulam, flumiclorac pentyl ester, glyphosate, isoxaflutole, linuron, mesotrione, topramezone.

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 reconditioning if appropriate or puncture and dispose of in a sanitary landfill or by incineration.

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.

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

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