



OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION

WASHINGTON, D.C. 20460

June 25, 2025

Edward Hearn
Regulatory Expert II
Sharda USA LLC
c/o SynTech Research Group (Regulatory)
7217 Lancaster Pike, Suite A
Hockessin, DE 19707

Subject: Label Amendment - Registration Review Mitigation for Fomesafen
Product Name: SHAFEN STAR
EPA Registration Number: 83529-25
Application Date: March 21, 2022
Decision Number: 582670
Case Number: 472718

Dear Edward Hearn:

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 Fomesafen Interim Decision, and 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 Assurance.

A stamped copy of your labeling is enclosed for your records. This labeling supersedes all previously accepted labeling and must be used at your next label printing. 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 12 months from the date of this letter. After 12 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 Caleb Carr phone at 202-566-0636, or via email at carr.caleb@epa.gov.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Linda Arrington', with a stylized flourish at the end.

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

ENCLOSURE: Stamped label

FOMESAFEN	GROUP	14	HERBICIDE
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SHAFEN STAR

For Control of Weeds in Cotton, Dry Beans, Potatoes, Snap Beans and Soybeans

ACTIVE INGREDIENT:	WT. BY %
Sodium salt of Fomesafen: 5-[2-chloro-4-(trifluoromethyl)phenoxy]-N-(methylsulfonyl)-2-nitrobenzamide	22.1%*
OTHER INGREDIENTS:	77.9%
TOTAL:	100.0%

*Equivalent to 21.0% fomesafen or 1.88 lbs. fomesafen active ingredient per gal.

KEEP OUT OF REACH OF CHILDREN WARNING/AVISO

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

FIRST AID	
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.
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 by a poison control center or doctor. Do not give anything to an unconscious person.
IF IN EYES:	<ul style="list-style-type: none"> 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. Call a poison control center or doctor for treatment advice.
NOTE TO PHYSICIAN	
Probable mucosal damage may contraindicate the use of gastric lavage.	
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 Panel for First Aid Instructions and booklet for complete Precautionary Statements and Directions for Use.

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

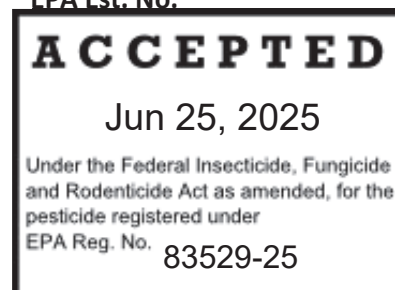
See label booklet for additional Precautionary Statements Directions For Use, and Storage and Disposal.

See label booklet for complete Directions For Use.]

EPA Reg. No. 83529-25

EPA Est. No. _____

Manufactured for:
Sharda USA LLC 
7217 Lancaster Pike, Suite A
Hockessin, Delaware 19707



Net Contents: _____ [Gallons/Liters]

PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS
WARNING/AVISO

This product contains fomesafen which has been determined to cause tumors in laboratory animals (mice). Risks can be reduced by closely following use directions and precautions and by wearing the protective clothing specified elsewhere on this label.

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

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Applicators and other handlers must wear:

- Coveralls over short-sleeved shirt and short pants
- Chemical-resistant gloves made of barrier laminate, nitrile rubber \geq 14 mils, neoprene rubber \geq 14 mils, or Viton® \geq 14 mils
- Chemical-resistant footwear plus socks
- Chemical-resistant apron when mixing, loading, or cleaning equipment
- Chemical-resistant headgear for overhead exposure

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

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240 (d) (4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

USER SAFETY RECOMMENDATIONS

Users should:

- Wash thoroughly with soap and water 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

For Terrestrial Uses: 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 contaminate water when disposing of equipment wash waters or rinsate. Do not apply when weather conditions favor drift from target area. Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas.

Groundwater Advisory

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

Surface Water Advisory

This product may impact surface water quality due to spray drift and run off of rain water. This is especially true for poorly draining soils and soils with shallow groundwater. This product is classified as having high potential for reaching surface water via runoff for several months 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 fomesafen from runoff water and sediment. Runoff of this product will be reduced by avoiding applications when rainfall is forecasted to occur within 48 hours.

For more information, see the United States Department of Agriculture National Resource Conservation Service's manual, "Conservation Buffers to Reduce Pesticide Losses."

NON-TARGET ORGANISM ADVISORY

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.

PHYSICAL OR CHEMICAL HAZARDS

Do not mix or allow coming in contact with oxidizing agents. Hazardous chemical reaction may occur.

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.

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 24 hours.

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

- Coveralls over short-sleeved shirt and short pants
- Chemical-resistant gloves made of barrier laminate, nitrile rubber ≥ 14 mils, neoprene rubber ≥ 14 mils, or Viton® ≥ 14 mils
- Chemical-resistant footwear plus socks
- Chemical-resistant apron when mixing, loading, or cleaning equipment
- Chemical-resistant headgear for overhead exposure

PRODUCT INFORMATION

Read all label directions before using.

Shafen Star is a selective herbicide which may be applied pre-plant, pre-emergence or post-emergence for control or suppression of broadleaf weeds, grasses and sedges in cotton, dry beans, potatoes, snap beans, and soybeans.

Post-Emergence Applications

Shafen Star is generally most effective and consistent when used post-emergence, working through contact action. Therefore, emerged weeds must have thorough spray coverage for effective control.

Some bronzing, crinkling or spotting of soybean leaves may occur following a post-emergent application, but soybeans soon outgrow these effects and develop normally.

Optimum weed control is achieved by post-emergent applications of **Shafen Star** to young actively growing broadleaf weeds that are not under stress from moisture, temperature, low soil fertility, mechanical or chemical injury.

Pre-Plant Surface and Pre-Emergence Applications

Certain germinating broadleaf weeds, grasses and sedges may be controlled or suppressed by soil residual activity from either pre-plant, pre-emergent or post-emergent applications if rainfall occurs shortly after application. The extent and consistency of soil activity is dependent upon soil characteristics, ground cover, amount of rainfall following application and the rate of **Shafen Star** used.

WEED RESISTANCE MANAGEMENT

For resistance management, **Shafen Star** is a Group 14 herbicide. Any weed population may contain or develop plants naturally resistant to **Shafen Star** and other Group 14 herbicides. The resistant biotypes may dominate the weed population if these herbicides are used repeatedly in the same field. Appropriate resistance management strategies should be followed.

To delay herbicide resistance, take one or more of the following steps:

- Rotate the use of **Shafen Star** or other Group 14 herbicides within a growing season sequence or among growing seasons with different herbicide groups that control the same weeds in a field.
- Use tank mixtures with herbicides from a different group if such use is permitted; where information on resistance in target weed species is available, use the less resistance-prone partner at a rate that will control the target weed(s) equally as well as

the more resistance-prone partner. Consult your local extension service or certified crop advisor if you are unsure as to which active ingredient is currently less prone to resistance.

- Adopt an integrated weed-management program for herbicide use that includes scouting and uses historical information related to herbicide use and crop rotation, and that considers tillage (or other mechanical control methods), cultural (e.g., higher crop seeding rates; precision fertilizer application method and timing to favor the crop and not the weeds), biological (weed-competitive crops or varieties) and other management practices.
- Scout before and after herbicide application to monitor weed populations for early signs of resistance development. Indicators of possible herbicide resistance include: (1) failure to control a weed species normally controlled by the herbicide at the dose applied, especially if control is achieved on adjacent weeds; (2) a spreading patch of non-controlled plants of a particular weed species; (3) surviving plants mixed with controlled individuals of the same species. If resistance is suspected, prevent weed seed production in the affected area by an alternative herbicide from a different group or by a mechanical method including hoeing or tillage. Prevent movement of resistant weed seeds to other fields by cleaning harvesting and tillage equipment when moving between fields, and planting clean seed.
- If a weed pest population continues to progress after treatment with this product, discontinue use of this product, and switch to another management strategy or herbicide with a different mode of action, if available.
- Contact your local extension specialist or certified crop advisors for additional pesticide resistance-management and/or integrated weed-management recommendations for specific crops and weed biotypes.
- For further information or to report suspected resistance, contact your local Sharda USA, LLC representative.

Report any incidence of non-performance of this product against a particular weed species to your Sharda USA, LLC retailer or representative. If resistance is suspected, treat weed escapes with an herbicide having a different mechanism of action and/or use non-chemical means to remove escapes, as practical, with the goal of preventing further seed production.

MANDATORY SPRAY DRIFT MANAGEMENT

Aerial Applications

- **DO NOT** release spray at a height greater than 10 ft. above the vegetative canopy, unless a greater application height is necessary for pilot safety.
- For applications prior to the emergence of crops and target weeds, applicators are required to use a coarse or coarser droplet size (ANSI/ASABE S641).
- For all other applications, applicators are required to use a Medium or coarser droplet size (ANSI/ASABE S641).
- For aerial applications: **DO NOT** apply when wind speeds exceed 15 mph at the application site. If the wind speed is greater than 10 mph, the boom length must be 65% or less of the wingspan for fixed wing aircraft and 75% or less of the rotor diameter for helicopters. Otherwise, the boom length must be 75% or less of the wingspan for fixed-wing aircraft and 90% or less of the rotor diameter for helicopters. Applicators must use ½ swath displacement upwind at the downwind edge of the field.
- Nozzles must be oriented so the spray is directed toward the back of the aircraft.
- **DO NOT** apply when wind speeds exceed 15 miles per hour at the application site.
- **DO NOT** apply during temperature inversions.

Ground Boom Applications:

- User must only apply with the nozzle height recommended by the manufacturer, but no more than 3 feet above the ground or crop canopy.
- For applications prior to the emergence of crops and target weeds, applicators are required to use a Coarse or coarser droplet size (ANSI/ASAE S572.3).
- For all other applications, applicators are required to use a Medium or coarser droplet size (ANSI/ASAE S572.3).
- **DO NOT** apply when wind speeds exceed 15 miles per hour at the application site.
- **DO NOT** apply during temperature inversions.

SPRAY DRIFT ADVISORIES

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

IMPORTANCE OF DROPLET SIZE

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

Controlling Droplet Size - Ground Boom

- **Volume-** Increasing the spray volume so that larger droplets are produced will reduce spray drift. Use the highest practical spray volume for the application. If a greater spray volume is needed, consider using a nozzle with a higher flow rate.
- **Pressure-** Use the lowest spray pressure recommended for the nozzle to produce the target spray volume and droplet size.

- **Spray Nozzle-** Use a spray nozzle that is designed for the intended application. Consider using nozzles designed to reduce drift.

Controlling Droplet Size - Aircraft

- **Adjust Nozzles-** Follow nozzle manufacturers recommendations for setting up nozzles. Generally, to reduce fine droplets, nozzles should be oriented parallel with the airflow in flight.

BOOM HEIGHT - Ground Boom

Use the lowest boom height that is compatible with the spray nozzles that will provide uniform coverage. For ground equipment, the boom should remain level with the crop and have minimal bounce.

RELEASE HEIGHT- Aircraft

Higher release heights increase the potential for spray drift.

SHIELDED SPRAYERS

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

TEMPERATURE AND HUMIDITY

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

TEMPERATURE INVERSIONS

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

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.

APPLICATION DIRECTIONS**Application Timing**

Best broad-spectrum post-emergence control of susceptible broadleaf weeds is obtained when **Shafen Star** is applied early to actively growing weeds. This usually occurs 14 to 28 days after planting. Refer to the weed control tables for specific directions on weed growth stages and rates.

Spray Additives

Only spray additives cleared for use on growing crops under 40 CFR 180.1001 may be used in the spray mixture. For best broad spectrum post-emergence control of susceptible broadleaf weeds in Regions 2, 3, 4, and 5 (see **REGIONAL USE MAPS**), **Shafen Star** should be used with 1.0-2.5% v/v liquid nitrogen (28% or similar) or a minimum of 8.5 lbs. ammonium sulfate per 100 gals., of spray volume.

For Post-Emergence Applications Always Add One of the Following, except in tank mix with products prohibiting spray additives (see Tank Mix Directions for Use):

Crop Oil Concentrate (COC) or Methylated Seed Oil (MSO) - Use a nonphytotoxic COC or MOS containing 15-20% approved emulsifier at 0.5-1% v/v (2-4 qts./100 gals.) of finished spray volume. COC or MSO can improve weed control but may slightly reduce crop tolerance.

Non-ionic Surfactant (NIS) - Use NIS containing at least 80% active ingredient at 0.25-0.5% v/v (2-4 qts./100 gals.) of finished spray volume (Region 1 and East of Interstates 79 and 77 for Regions 2 and 3).

Other Adjuvants - Adjuvants other than COC or NIS may be used providing the product meets the following criteria:

1. Contains only EPA exempt ingredients.
2. Is nonphytotoxic to the target crop.
3. Is compatible in mixture. (May be established through a jar test.)
4. Is supported locally for use with **Shafen Star** on the target crop through proven field trials and through university and extension recommendations.

NOTE: No adjuvants are needed for preplant or pre-emergence applications unless **Shafen Star** is being used in a burndown.

Recommended Mixing Order:

1. Fill spray tank with half the required amount of water and begin agitation. *

2. Add fertilizer (UAN, AMS).
 3. Add dry pesticide formulations.
 4. Add **Shafen Star**.
 5. Add liquid pesticide formulation.
 6. Add adjuvant (MSO, COC or NIS).
 7. Add remainder of water and then maintain constant agitation.
- *Compatibility agent, 1 gal./500 gals., of water or 0.2% v/v, may be added as needed.

Tank Mix Compatibility Test

A jar test is recommended prior to tank mixing to ensure compatibility of **Shafen Star** with mixture partners. Add proportion amounts of tank mixture components in a clear quart jar one at a time in the recommended mixing order. Gently shake or invert capped jar and let stand for 15-30 minutes. If the mixture clumps, forms flakes, oily films or layers or other precipitates, it is not compatible and the tank mixture should not be used.

Ground Application

For ground applications, apply with the nozzle height recommended by the manufacturer, but no more than 3 feet above the ground or crop canopy.

Pre-Plant Surface and Pre-Emergence Application - Use a minimum of 10 gallons per acre. Nozzle selection should meet manufacturer's gallonage and pressure recommendations for pre-plant surface or pre-emergence applications.

Post-Emergence Application - Use sufficient spray volume and pressure to ensure complete coverage of the target weed. A spray volume of 10-20 gallons per acre and 30-60 PSI at the nozzle tip is recommended. On large weeds and/or dense foliage, use 60 PSI and a minimum of 20 gallons per acre to ensure coverage of weed foliage.

The use of flat fan nozzles will result in the most effective post-emergence application of **Shafen Star**. The sprayer must be calibrated to provide the proper volume and rate per acre. In addition, the boom and nozzle height must be adjusted to provide complete coverage of target weeds.

DO NOT USE FLOOD TYPE OR OTHER SPRAY NOZZLES, WHICH DELIVER COARSE, LARGE DROPLET SPRAYS.

Band Applications

Thorough weed coverage is important for post-emergent control. Best coverage is obtained with a minimum of two nozzles, one directed to each side of the planted row. Application with a single nozzle directed over the top of the row is not recommended for post-emergence applications but is suitable for pre-emergence applications. Cultivation of untreated areas may be needed following band applications. When making post-emergence band applications and cultivating in the same operation, position nozzles in advance of the cultivation device. This will reduce dust in the spray area. Dust can intercept spray, reducing weed coverage, resulting in less than adequate weed control.

Calculate the amount of herbicide and water volume needed for post-emergence band treatment by the following formulas:

<u>Band width in inches</u>	X	Broadcast rate per acre	=	Band herbicide rate per acre
Row width in inches				

<u>Band width in inches</u>	X	Broadcast volume per acre	=	Band water volume per acre
Row width in inches				

Aerial Application

Use sufficient spray volume and pressure to ensure complete coverage of the target. A minimum of 5 gals./A of spray mixture should be applied with a maximum of 40 PSI pressure. When broadleaf weed foliage is dense, use a minimum of 10 gals./A to ensure coverage of weed foliage.

DO NOT APPLY THIS PRODUCT THROUGH ANY TYPE OF IRRIGATION SYSTEM, EXCEPT CENTER PIVOT SYSTEMS.

CENTER PIVOT IRRIGATION APPLICATION

Shafen Star alone or in tank mixture with other herbicides on this label, which are registered for center pivot application, may be applied in irrigation water pre-emergence (after planting but before weeds or crop emerge) at rates directed on this label. **Shafen Star** also may be applied post-emergence to the crop and pre-emergence to weeds in crops where post-emergence applications are allowed on this label. Follow all restrictions (height, timing, rate, etc.) to avoid illegal residues. Apply this product only through a center pivot irrigation system. Do not apply this product through any other type of irrigation system. Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from nonuniform distribution of treated water. If you have questions about calibration, you should contact State Extension specialists, equipment manufacturers, or other experts. Do not connect an

irrigation system (including greenhouse systems) used for pesticide application to a public water system, unless the pesticide label-prescribed safety devices for public water systems are in place. A person knowledgeable of the chemigation system and responsible for its operation, or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.

Operating Instructions

- The system must contain a functional check-valve, vacuum relief valve, and low pressure drain appropriately located on the irrigation pipeline to prevent water-source contamination from backflow.
- The pesticide injection pipeline must contain a functional, automatic, quick-closing check-valve to prevent the flow of fluid back toward the injection pump.
- The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
- The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
- The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distributions adversely affected.
- Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump or piston pump), effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.
- Do not apply when wind speeds exceed 15 miles per hour at the application site.
- Prepare a mixture with a minimum of 1 part water to 1 part herbicide(s) and inject this mixture into the center pivot system. Injecting a larger volume of a more dilute mixture per hour will usually provide more accurate calibration of equipment. Maintain sufficient agitation to keep the herbicide in suspension.
- Meter into irrigation water during entire period of water application.
- Apply in $\frac{1}{2}$ - 1 inch of water. Use the lower water volume ($\frac{1}{2}$ inch) on coarser soils and the higher volume (1 inch) on fine-textured soils. More than 1 inch of water at application may reduce weed control by moving the herbicide below the effective zone in the soil.

Precaution for center pivot applications: Where sprinkler distribution patterns do not overlap sufficiently unacceptable weed control may result. Where sprinkler distribution patterns overlap excessively, crop injury may result.

Posting of areas to be chemigated is required when 1) any part of a treated area is within 300 feet of sensitive areas such as residential areas, labor camps, businesses, day care centers, hospitals, in-patient clinics, nursing homes or any public areas such as schools, parks, playgrounds, or other public facilities not including public roads, or 2) when the chemigated area is open to the public such as golf courses or retail greenhouses.

Posting must conform to the following requirements. Treated areas shall be posted with signs at all usual points of entry and along likely routes of approach from the listed sensitive area. When there are no usual points of entry, signs must be posted in the corners of the treated areas and in any other locations affording maximum visibility to sensitive areas. The printed side of the sign should face away from the treated area towards the sensitive area. The signs shall be printed in English. Signs must be posted prior to application and must remain posted until foliage has dried and soil surface water has disappeared. Signs may remain in place indefinitely as long as they are composed of materials to prevent deterioration and maintain legibility for the duration of the posting period.

All words shall consist of letters at least 2.5 inches tall, and all letters and the symbol shall be a color which sharply contrasts with their immediate background. At the top of the sign shall be the words KEEP OUT, followed by an octagonal stop sign symbol at least 8 inches in diameter containing the word STOP. Below the symbol shall be the words PESTICIDES IN IRRIGATION WATER.

Posting required for chemigation does not replace other posting and reentry interval requirements for farm worker safety.

Specific Instructions for Public Water Systems

1. Public water system means a system for the provision to the public of piped water for human consumption if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days out of the year.
2. Chemigation systems connected to public water systems must contain a functional, reduced-pressure zone, back-flow preventer (RPZ) or the functional equivalent in the water supply line upstream from the point of pesticide introduction. As an option to the RPZ, the water from the public water system should be discharged into a reservoir tank prior to pesticide introduction. There shall be a complete physical break (air gap) between the outlet end of the fill pipe and the top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe.
3. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
4. The pesticide injection pipeline must contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
5. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops, or in cases where there is no water pump, when the water pressure decreases to the point where pesticide

distribution is adversely affected.

6. Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.
7. Do not apply when wind speed favors drift beyond the area intended for treatment.

Soil Characteristics

Application of **Shafen Star** to soils with high organic matter and/or high clay content may require higher rates than soils with low organic matter and/or low clay content. Refer to the **REGIONAL USE MAPS**, weed control tables, and specific crop use sections for directions on use rates based on soil texture.

Environmental and Agronomic Conditions

Always apply **Shafen Star** under favorable environmental conditions that promote active weed growth. Avoid applying **Shafen Star** to weeds or labeled crops which are under stress from drought, extreme temperatures, excessive water, low humidity, low soil fertility, mechanical or chemical injury as reduced weed control and/or increased crop injury may result.

Cultivation

Cultivation prior to application is not recommended. Cultivation may put weeds under stress, reducing weed control. Timely cultivation 1-3 weeks after applying **Shafen Star** may assist weed control.

Rainfastness

Shafen Star requires a 1 hour rain-free period for best results when applied post-emergence.

PRECAUTIONS

- Thoroughly clean the spray system with water and a commercial tank cleaner before and after each use.
- Tank mixes of **Shafen Star** with other pesticides, fertilizers or any other additives except as specified on this label or other approved Sharda USA LLC supplemental labels may result in tank mix incompatibility, unsatisfactory performance and/or unsatisfactory crop injury.
- Apply post-emergence to actively growing weeds. Avoid applying **Shafen Star** to weeds or soybeans which are under stress from moisture, temperature, low soil fertility, mechanical or chemical injury, as reduced weed control and/or increased crop injury may result.
- Avoid overlapping spray swaths, as injury may occur to rotational crops.

RESTRICTIONS

- A maximum of 1.6 pts. of **Shafen Star** (or a maximum of 0.375 lb. a.i./A of fomesafen from any product containing fomesafen) may be applied per acre per calendar year in Region 1 (see **REGIONAL USE MAP**).
- A maximum of 1.6 pts. of **Shafen Star** (or a maximum of 0.375 lb. a.i./A of fomesafen from any product containing fomesafen) may be applied per acre in alternate years in Region 2 (see **REGIONAL USE MAP**).
- A maximum of 1.3 pts. of **Shafen Star** (or a maximum of 0.313 lb. a.i./A of fomesafen from any product containing fomesafen) may be applied per acre in alternate years in Region 3 (see **REGIONAL USE MAP**).
- A maximum of 1 pt. of **Shafen Star** (or a maximum of 0.25 lb. a.i./A of fomesafen from any product containing fomesafen) may be applied per acre in alternate years in Region 4 (see **REGIONAL USE MAP**).
- A maximum of 0.75 pt. of **Shafen Star** (or a maximum of 0.1875 lb. a.i./A of fomesafen from any product containing fomesafen) may be applied per acre in alternate years in Region 5 (see **REGIONAL USE MAP**).
- To provide adequate coverage, it is recommended that ground speed not exceed 10 MPH during application.
- Do not graze treated areas or harvest for forage or hay.
- Do not apply within 45 days of soybean harvest.

ROTATIONAL CROP RESTRICTIONS

The following rotational crops may be planted after applying **Shafen Star** at specified rates in soybeans:

Crop To Be Planted	Minimum Rotation Interval (Months After Last Shafen Star Application)
Dry beans, snap beans, soybeans and cotton	0
Small grains such as wheat, barley, rye	4
Corn*, peanuts, peas, rice, seed corn	10
To avoid crop injury do not plant alfalfa, sunflowers, sugar beets, sorghum** or any other crop within:	18

*Use 12 month minimum rotation interval for popcorn in the states of Ohio, Kentucky, Illinois, Indiana, Iowa and Region 4 when applied at a rate of 1.0 pt./A or more.

*Use 18 month minimum rotation interval for sweet corn in the states of Connecticut, Maine, Massachusetts, New Hampshire, New York, Rhode Island, Vermont and Region 5.

**Sorghum may be planted back after 10 months in Region 1.

Do not graze rotated small grain crops or harvest forage or straw for livestock.

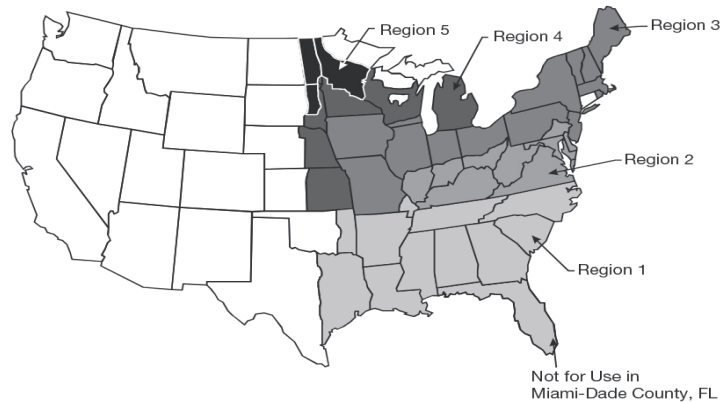
Replanting

If replanting is necessary in fields previously treated with **Shafen Star**, the field may be replanted to cotton, dry beans, snap beans or soybeans. Do not apply a second application of **Shafen Star** or other fomesafen-containing product as crop injury or illegal residues

may occur in harvested crops. If tank-mix combinations were used, refer to product labels for any additional replanting instructions.

SHAFEN STAR - USE RATES AND WEEDS CONTROLLED

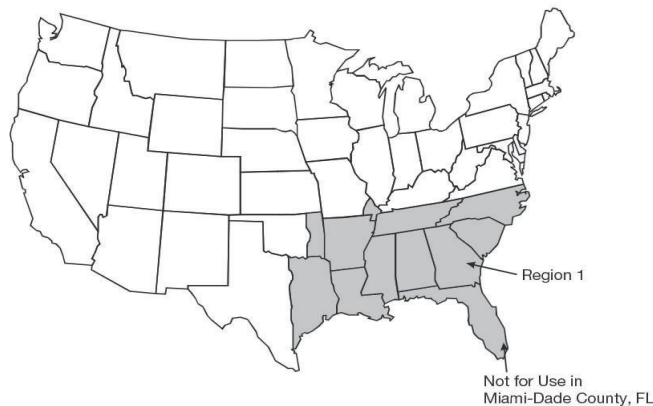
REFER TO MAP FOR DEFINITION OF SPECIFIED GEOGRAPHIC REGIONS
SHAFEN STAR REGIONAL USE MAP



REGION 1

(Maximum Rate 1.6 pts./A per calendar year)

REGION 1: Includes the following states or portion of states where **Shafen Star** may be applied: Alabama, Arkansas, Florida (except Miami-Dade county), Georgia, Louisiana, Mississippi, Missouri (Counties of Bollinger, Butler, Cape Girardeau, Dunklin, Madison, Mississippi, New Madrid, Pemiscot, Perry, Ripley, Scott, Stoddard, and Wayne), North Carolina, Oklahoma (East of U.S. Highway 75 and East of Indian Nation Parkway), South Carolina, Tennessee, and Texas (all areas East of U.S. Highway 77 to State Road 239, including all of Calhoun County).



REGION 2

(Maximum Rate 1.6 pts./A, alternate years)

REGION 2: Includes the following states or portion of states where **Shafen Star** may be applied: Delaware, Kentucky, Maryland, Virginia and West Virginia. South of Interstate 70 in the following states: Illinois, Indiana, and Ohio, and in Pennsylvania (all areas South of Interstate 80 to the intersection of U.S. Highway 15 and East of U.S. Highway 15 and U.S. Highway 522).



REGION 3: Includes the following states or portion of states where **Shafen Star** may be applied: Connecticut, Iowa, Maine, Massachusetts, Missouri (all counties except for those listed in Region 1), New Hampshire, New Jersey, New York, Pennsylvania (all

areas except those listed in Region 2), Rhode Island, Vermont, Wisconsin (South of U.S. Highway 18 between Prairie Du Chien and Madison, and South of Interstate 94 between Madison and Milwaukee), and North of Interstate 70 in the following states: Illinois, Indiana, and Ohio.

REGION 4
(Maximum Rate 1 pt./A, alternate years)

REGION 4: Includes the following states or portion of states where **Shafen Star** may be applied: Kansas (all counties East of or intersected by U.S. Highway 281), Michigan (Southern Peninsula), Minnesota (all areas South of Interstate 94), Nebraska (all counties East of or intersected by U.S. Highway 281), and Wisconsin (all areas except those in Region 3, South of Interstate 94 from Minnesota state line to Eau Claire and South of U.S. Highway 29 from Eau Claire to Green Bay plus Barron, Chippewa, Clark, Door, Dunn, Eau Claire, Kewaunee, Marathon, Menominee, Oconto, Polk, Shawano, and St. Croix counties). The following counties are excluded: Adams, Marquette, Portage, Waupaca, Waushara, and Wood). North Dakota (all areas East of Interstate 29 from Fargo South to the South Dakota state line). South Dakota (all areas East of Interstate 29 from the North Dakota state line to Watertown, all areas East of Highway 81 from Watertown to Madison and all areas East and South of State Road 34 and U.S. Highway 281 to the Nebraska state line).



REGION 5
(Maximum Rate 0.75 pt./A, alternate years)

REGION 5: Includes the following states or portion of states where **Shafen Star** may be applied: North Dakota (all areas East of U.S. Highway 281 except those areas in Region 4), South Dakota (all areas East of U.S. Highway 281 except those areas in Region 4), and Minnesota (all areas South of U.S. Highway 2 except those areas in Region 4).



WEEDS CONTROLLED		
Weeds Controlled or Partially		
Activity of Shafen Star at 1 - 1.6		
Controlled* by Pre-Emergence		Pints/A ¹
Broadleaf Weeds Controlled	Soil Texture	Organic Matter

Amaranth Palmer	All Soil Types	Up to 5%
Croton, Topic ²		
Eclipta		
Galinsoga spp.		
Lambsquarters, Common		
Morningglory, Smallflower		
Nightshade, Black		
Nightshade, Eastern Black		
Pigweed, Redroot		
Pigweed, Smooth		
Poinsettia, Wild		
Purslane, Common		
Ragweed, Common ²		
Sida, Prickly ²		
Starbur, Bristly		
Broadleaf Weeds Partially Controlled*		
Anoda, Spurred		
Cocklebur, Common		
Morningglory, Entireleaf		
Morningglory, Ivyleaf		
Morningglory, Pitted		
Morningglory, Red/Scarlet		
Morningglory, Tall		
Nightshade, Hairy		
Ragweed, Giant		
Waterhemp, Common		
Sedges Partially Controlled*		
Nutsedge, Yellow		

*Partial control means significant activity but not always at a level considered acceptable for commercial weed control.

¹Use the higher end of the rate range when heavy weed populations are anticipated.

²Rates less than 1.6 pints/A will provide only partial control of this weed.

APPLICATION RATES FOR WEED GROWTH STAGES

Weed	Shafen Star Rate (pts./A) Maximum Growth Stage Controlled At			
	0.75 pt./A # of True Leaves	1 pt./A # of True Leaves	1.25 pts./A # of True Leaves	1.5 pts./A # of True Leaves
Anoda, Spurred	—	2*	2	4
Balloon Vine	—	—	2	4
Carpetweed	—	8" Diameter Size	Unlimited Size	Unlimited Size
Citron (Wild Watermelon)	—	2	4	4
Cocklebur, Common	2	4	6	8
Copperleaf, Hophornbeam	—	4	4	6
Copperleaf, Virginia	—	4	4	6
Crotalaria, Showy	—	6	6	8
Croton, Tropic	—	4	4	6
Cucumber, Volunteer	—	4	6	8
Eclipta	—	2	4	4
Groundcherry, Cutleaf	—	4	6	8
Hemp	—	4	6	6
Horsenettle	—	2*	4*	4*
Jimsonweed	4	6	8	8
Ladysthumb	2*	2	4	6
Lambsquarters, Common	2*	2*	2*	2*
Mexicanweed	—	2*	2	4
Morningglory				
Cypressvine	2	4	6	6
Entireleaf var.	3*	3	4	5
Ivyleaf	3*	3	4	5
Purple Moonflower	3*	3	5	6
Red (Scarlet)	3*	3	6	6
Smallflower	3*	3	4	6
Pitted (Smallwhite)	4*	4	6	6
Tall (Common)	2*	2	3	5
Palmleaf (Willowleaf)	3*	3	6	6
Mustard, Wild	4	6	8	8

Weed	Shafen Star Rate (pts./A) Maximum Growth Stage Controlled At			
	0.75 pt./A # of True Leaves	1 pt./A # of True Leaves	1.25 pts./A # of True Leaves	1.5 pts./A # of True Leaves
Nightshade, Black	2	4	6	6
Nutsedge, Yellow	—	—	*	*
Pigweed, spp.				
Amaranth, Palmer	2	4	6	6
Amaranth, Spiny	2	2	4	6
Redroot	2	4	6	8
Smooth	2	4	6	6
Waterhemp, Common	2*	2	4	6
Waterhemp, Tall	2*	2	4	6
Poinsettia, Wild	—	2	4	6
Purslane, Common	—	Multi-Leaf 6" Diameter	Multi-Leaf 8" Diameter	Multi-Leaf 8" Diameter
Pusley, Florida	—	2	2	4
Ragweed, Common	4*	4	6	8
Ragweed, Giant	4*	4	6	8
Redweed	—	—	2*	3*
Sesbania, Hemp	—	8	12	12
Sicklepod	—	—	Cotyledon*	Cotyledon*
Sida, Prickly	—	2*	2	4
Smartweed, Pennsylvania	4*	4	6	6
Smellmelon	—	2	2	4
Spurge, Prostrate	—	—	1" Diameter*	2" Diameter*
Spurge, Spotted	—	—	2*	2*
Starbur, Bristly	—	4	4	6
Sunflower, Common	—	—	2	4
Velvetleaf	—	2	4	4
Venice Mallow	4	6	6	8
Witchweed	—	Multi-leaf Up to 7"	Multi-leaf Up to 10"	Multi-leaf Up to 10"
Yellow Rocket	4	4	6	8

*Suppression Only

SPECIAL USE DIRECTIONS FOR ADDITIONAL WEED PROBLEMS**Suppression of Annual Grasses:**

The grasses listed below may be suppressed by post-emergence applications and controlled or suppressed by pre-emergence applications of **Shafen Star** at 1 - 1.5 pts./A. Consult **REGIONAL USE MAPS** for maximum rate in each region. For full-season broad-spectrum annual grass control, Fusilade® DX or Fusion® herbicide should be used alone or in tank mix with **Shafen Star**. Consult tank mix section.

Barnyardgrass
Broadleaf Signalgrass
Crabgrass
 Foxtail
 Giant
 Green
 Yellow
Goosegrass
Johnsongrass, Seedling
Panicum, Fall
Panicum, Texas

Suppression of Perennial Weeds:

Use of **Shafen Star** at post-emergence rates of 1 - 1.5 pts./A will aid in suppressing the above-ground portions of the weeds listed below until crop canopy can assist in suppression. Perennial weeds continue to regrow from underground rootstocks even if above-ground foliage is temporarily controlled or retarded. Even though **Shafen Star** and crop competition can suppress perennial weeds for a growing season, the rootstocks will continue to live and reestablishment will occur in subsequent years.

Milkweed, Climbing
Milkweed, Honeyvine
Bindweed, Field
Bindweed, Hedge
Trumpet Creeper

COTTON USE DIRECTIONS

Pre-Emergence Application: Apply **Shafen Star** pre-emergence at 1 - 1.6 pts./A in cotton in Region 1 for control or partial control of

the weeds listed in “**WEEDS CONTROLLED**” table of the container label. Apply as a pre-emergence treatment only to coarse-textured soils (sandy loam, loamy sand, sandy clay loam).

To broaden the weed control spectrum, **Shafen Star** may be tank mixed with other pre-emergence herbicides such as Caparol®, Cotoran®, Direx®, Karmex®, Solicam®, or Staple®.

For control of emerged weeds, **Shafen Star** may be tank mixed with a burndown herbicide such as Gramoxone Inteon™ or glyphosate brands (such as Touchdown®, Roundup®) labeled in cotton. In reduced tillage plantings, **Shafen Star** can be applied up to 14 days prior to planting or at planting with a burndown herbicide. Refer to the tank-mix partner label for use directions, restrictions and limitations. The most restrictive product labeling applies.

Cotton plants are tolerant to pre-emergence applications of **Shafen Star** when applied at directed rates and to coarse-textured soil types. Some crinkling or spotting of cotton foliage or stunting may occur, especially if heavy rainfall occurs during or soon after cotton emergence, but cotton plants normally outgrow these effects and develop normally. Cotton foliage is not tolerant to **Shafen Star**. Do not apply **Shafen Star** over the top of emerged cotton as unacceptable cotton injury will occur.

Post-Directed Application: Apply **Shafen Star** in emerged cotton as a post-directed treatment using precision post-directed, hooded or shielded application equipment to provide complete coverage of emerged weeds. Apply **Shafen Star** at 1 - 1.6 pints per acre in a minimum of 10 gallons spray solution per acre. Post-directed applications of **Shafen Star** will provide contact control of labeled emerged weeds and residual pre-emergence control of labeled weeds (once activated by rainfall or irrigation). See container label sections for a list of weeds controlled, directed application rates, weed growth stages, and application directions.

Shafen Star should be applied with a non-ionic surfactant at 0.25 to 0.5% v/v, or crop oil concentrate at 1% v/v to emerged weeds. Do not add liquid nitrogen (28% or similar) to **Shafen Star**, or **Shafen Star** tank mixes in cotton. To broaden the weed control spectrum, post-directed applications of **Shafen Star** may be tank mixed with other labeled post-directed herbicides such as Caparol, Direx, Dual MAGNUM®, Envoke®, Karmex, Layby™ Pro, Sequence®, or Suprend®. When applied with hooded or shielded sprayers, **Shafen Star** and **Shafen Star** tank mixes may be applied with burndown products such as Gramoxone Inteon, Sequence or glyphosate brands (such as Touchdown, Roundup) labeled for in crop application in cotton. Refer to the tank-mix partner label for use directions, restrictions and limitations. The most restrictive product labeling applies.

Cotton foliage is not tolerant to **Shafen Star** applications. Avoid contact to cotton foliage as unacceptable injury will occur. Application equipment should be calibrated (spray pressure, nozzle type and configuration, and orifice size) to avoid fine spray droplets contacting green cotton stems and foliage.

Post-Directed Application Timing In Cotton: **Shafen Star** may be applied to cotton at least 6 inches in height through lay-by as a post-directed application. All post-directed applications should avoid spray contact with any green non-barked parts of the cotton plant or foliage as unacceptable injury will OCCUR. Follow the application timing directions below for post-directed applications in cotton.

Shield and Hooded Applications: Make a precision post-directed **Shafen Star** application to the base of the cotton plant avoiding contact with the cotton stem or foliage when cotton is at least 6 inches in height to avoid cotton injury. Use only hooded or shielded spray equipment to apply **Shafen Star** in cotton that is 6 inches to 12 inches in height. Adjust nozzles to provide full coverage of emerged target weeds.

Layby Applications: Make a post-directed **Shafen Star** application to the base of the cotton plant avoiding contact with any non-barked portion of the cotton plant or foliage. Use precision post-directed equipment or hooded or shielded sprayers on cotton that has developed a minimum of 4 inches of brown bark through layby. Application equipment should be configured to provide full coverage of emerged target weeds.

Restrictions - Cotton:

- Do not apply **Shafen Star** later than 70 days before harvest.
- Do not apply more than 1.6 pints per acre of **Shafen Star** per calendar year
- Do not make more than one application of **Shafen Star** per calendar year.
- If two consecutive year applications are made, allow a 2-year interval before another application.
- Do not apply as a pre-emergence treatment to medium or fine-textured soils as crop injury will likely occur.

Special Use Directions for the Suppression of Woollyleaf Bursage (Lakeweed), *Ambrosia grayi*, in Texas:

Apply **Shafen Star** to cultivated areas of cropland in the fall or spring as a spot treatment at a rate of 1.6 pints per acre and incorporate to a depth of 2-3 inches for suppression of woollyleaf bursage.

Applications should be made with ground equipment.

The use of adjuvants, as specified under the **Spray Additives** section, will significantly improve the initial burndown of any emerged woollyleaf bursage, but this effect is only temporary. Therefore, an adjuvant may be used if desired, but is not necessary.

Significant suppression may not be seen until 6-8 months after application, but should then continue for at least 2 years after application. Cotton or soybeans may be planted in treated areas. Under certain conditions, significant damage may occur to cotton planted within 18 months of application. A 3-year interval from last application to planting is required for all other crops.

DRY BEANS and SNAP BEANS

Pre-Plant Surface and Pre-Emergence Application

Apply **Shafen Star** as a pre-plant surface or pre-emergence application in Regions 1, 2, 3, and 4 only for control or partial control of the weeds listed in “**WEEDS CONTROLLED**” table. **Shafen Star** can be applied alone, or tank mixed or followed sequentially with other labeled dry bean or snap bean herbicides to broaden the weed control spectrum or control newly emerged weeds. Refer to the **Tank Mix and Sequential Applications** section for additional information.

NOTE: Treated soil that is splashed onto newly emerged seedlings may result in temporary crop injury but plants normally outgrow these effects and develop normally.

Post-Emergence Application

Apply **Shafen Star** as a post-emergent broadcast application in Regions 1, 2, 3, 4, and 5 for control or partial control of the weeds listed in “**APPLICATION RATES FOR WEED GROWTH STAGES**” table and in the “**SPECIAL USE DIRECTIONS FOR ADDITIONAL WEED PROBLEMS**” section. Application rate depends on weed species and growth stage. Two applications may be made if necessary but not to exceed the maximum rate specified per geographic region (refer to map for definition of specified geographic regions). Refer to the **Spray Additives** section for recommended spray additives. Use of crop oil concentrate can improve weed control but may slightly reduce crop tolerance.

Apply when dry beans or snap beans have at least one fully expanded trifoliate leaf.

Shafen Star can be applied alone or in tank mix with other labeled dry bean or snap bean post-emergence herbicides to broaden the weed control spectrum. Refer to the **Tank Mix and Sequential Applications** section.

Some bronzing, crinkling or spotting of dry bean or snap bean leaves may occur following post-emergent applications, but dry beans and snap beans soon outgrow these effects and develop normally.

Tank Mix and Sequential Applications for Dry Beans and Snap Beans

Shafen Star can be used sequentially or in tank mix with the following products:

Dry Beans and Snap Beans	Dry Beans Only
Assure II®	Frontier®
Basagran®	Clethodim 2E Sonalan®
Dual MAGNUM	
Eptam®	
Poast®	
Prowl®	
Sharda Imazethapyr 2	
Raptor®	
Trifluralin 4E	

Under certain conditions, the mixture of **Shafen Star** with one or more of the above mentioned broadleaf herbicides may cause a reduction in activity of any post-emergence grass herbicide in the mixture.

For sequential applications, allow 2-3 days after the application of the post-emergence grass herbicide before applying **Shafen Star** or **Shafen Star** mixtures. Where **Shafen Star** or the **Shafen Star** mixture is applied first, apply the grass herbicide when the grass weeds begin to develop new leaves (generally around 7 days).

NOTE: Tank-mix applications can result in increased crop injury as compared to either product used alone.

Always read and follow the directions, restrictions and limitations for all products whether used alone, sequentially or in a tank mix. The most restrictive labeling of any product used applies.

Restrictions - Dry Beans and Snap Beans

- Refer to the **REGIONAL USE MAPS** for the maximum rate of **Shafen Star** (or other fomesafen containing products) that may be applied in each geographic region.
- Do not apply to any field in Regions 2, 3, 4, or 5 more than once every two years.
- For Snap Beans:** Do not exceed 1.6 pints of **Shafen Star** per acre in any one calendar year and adhere to the maximum rate that

may be applied in each geographic region (refer to the **REGIONAL USE MAPS**). Do not graze treated areas or harvest for forage or hay. Do not utilize hay or straw for animal feed or bedding. Do not apply within 30 days of harvest.

- **For Dry Beans:** Do not exceed 1.6 pints of **Shafen Star** per acre in any one year and also adhere to the maximum rate that may be applied in each geographic region (refer to the **REGIONAL USE MAPS**). Do not graze animals on green forage or stubble. Do not utilize hay or straw for animal feed or bedding. Do not apply within 45 days of harvest.
- Do not use UAN (28% or similar) or ammonium sulfate on dry beans or snap beans as severe crop injury may occur.

POTATOES

Apply **Shafen Star** at 1 pt./A as a broadcast pre-emergence application after planting but before potato emergence for control or partial control of weeds listed in “**WEEDS CONTROLLED**” table. Effectiveness will be reduced if later cultural practices expose untreated soil. For application by center pivot irrigation, see the **CENTER PIVOT IRRIGATION APPLICATION** section of this label.

NOTE: Potato varieties may vary in their response to **Shafen Star**. When using **Shafen Star** for the first time on a particular variety, always determine crop tolerance before using.

Tank Mixtures With Other Products Registered for Use in Potatoes

For pre-emergence applications in potatoes, **Shafen Star** may be tank mixed with other pesticide products registered for use in this way and timing in potatoes. Follow the directions for use, observe the stated precautions, and abide by the limitations and restrictions on the most restrictive of the product labels. If you have no previous experience mixing these products under your conditions, perform a compatibility test before attempting large-scale mixing (see **Tank Mix Compatibility Test** section of this label).

Restrictions - Potatoes

- Do not exceed 1 pt./A of **Shafen Star** per season. Refer to **REGIONAL USE MAPS** for the maximum rate of **Shafen Star** (or other fomesafen containing products) that may be applied per calendar year or alternate year in each geographic region.
- Do not harvest potatoes treated with **Shafen Star** within 70 days of application.
- Do not apply **Shafen Star** to sweet potatoes or yams.
- Do not apply **Shafen Star** as a pre-plant incorporated application in potatoes or crop injury may occur.
- Do not apply to emerged potato plants or severe crop injury will occur.

SOYBEANS

Pre-Plant Surface and Pre-Emergence Application

Apply **Shafen Star** as a pre-plant surface or pre-emergence application in Regions 1, 2, 3, and 4 only for control or partial control of the weeds listed in “**WEEDS CONTROLLED**” table. **Shafen Star** can be applied alone or tank mixed or followed sequentially with other labeled soybean herbicides to broaden the weed control spectrum or control newly emerged weeds. Refer to the **Tank Mix and Sequential Applications** section for additional information.

For control of emerged weeds, **Shafen Star** may be tank mixed with a burndown herbicide such as Gramoxone Inteon or glyphosate brands (such as Touchdown or Roundup) labeled in soybeans. In reduced tillage plantings, **Shafen Star** can be applied up to 14 days prior to planting or at planting with a burndown herbicide.

Post-Emergence Application

Apply **Shafen Star** as a post-emergence broadcast application in Regions 1, 2, 3, 4, and 5 for control or partial control of weeds listed in “**APPLICATION RATES FOR WEED GROWTH STAGES**” and in the “**SPECIAL USE DIRECTIONS FOR ADDITIONAL WEED PROBLEMS**” section. Application rate depends on weed species and growth stage. Refer to the **Spray Additives** section for recommended spray additives. To enhance post-emergence control of susceptible broadleaf weeds (soybeans only) in Regions 2, 3, 4, and 5 (see **REGIONAL USE MAPS**), **Shafen Star** can be used with a minimum of 2.5% liquid nitrogen (28% or similar) or a minimum of 10 pounds ammonium sulfate per 100 gallons of spray volume. **Shafen Star** can be applied alone or in combination with other labeled soybean post-emergence herbicides to broaden the weed control spectrum. Refer to the **Tank Mix and Sequential Applications** section.

Some bronzing, crinkling or spotting of soybean leaves may occur following post-emergent applications, but soybeans soon outgrow these effects and develop normally.

Tank Mix and Sequential Applications for Soybeans

Shafen Star can be used sequentially or in tank mix with one or more of the following products: Assure II®, Basagran®, Butyrac®, Classic®, FirstRate®, Fusilade DX, Fusion, Ignite®, Glyphosate (such as Touchdown®, Roundup®, Glyphomax™), Gramoxone® Inteon, Harmony®, Poast®, Poast Plus®, Pursuit®, Raptor®, Resource®, Scepter®, Select®, and Synchrony® STS®.

Under certain conditions, the mixture of **Shafen Star** with one or more of the above mentioned broadleaf herbicides may cause a reduction in activity of any post-emergence grass herbicide in the mixture.

For sequential applications, allow 2-3 days after the application of the grass herbicide before applying **Shafen Star** or **Shafen Star** mixtures. Where **Shafen Star** or the **Shafen Star** mixture is applied first, apply the grass herbicide when grass weeds begin to

develop new leaves (generally around 7 days).

Tank mix applications can result in increased crop injury as compared to either product used alone. Always read and follow the directions, restrictions and limitations for all products whether used alone, sequentially or in a tank mix. The most restrictive labeling of any product used applies.

Glyphosate-Tolerant Soybean Tank Mixes

Shafen Star at 6-12 oz./A, can be tank mixed with glyphosate products (such as Touchdown or Roundup) that are labeled for glyphosate-tolerant soybeans for improved post-emergence control of many weeds such as morningglory spp., hemp sesbania, waterhemp, and black nightshade which are known to have tolerance to glyphosate, but are susceptible to **Shafen Star**.

FOLLOW THE DIRECTIONS ON THE GLYPHOSATE PRODUCT LABEL FOR THE USE OF SPRAY ADDITIVES IN THIS TANK MIX.

Do not allow this tank mix to move off target as contact by even minute quantities can cause severe damage or death to any non-target vegetation.

NOTE: Post-emergence application of this tank mix on soybean varieties which do not contain the glyphosate tolerant gene will result in severe crop injury or death of the soybean crop. Always read and follow the directions, restrictions and limitations for all products used. The most restrictive labeling of any product applies.

Restrictions - Soybeans

- Do not exceed 1 fl. oz. of Butyrac per acre in mixture with **Shafen Star**.
- Do not exceed 0.25 oz./A of Synchrony STS herbicide in the tank with labeled rates of **Shafen Star** on non-STs varieties. This tank mix can be applied post-emergence to any soybean variety for additional broadleaf weed control. Refer to the Synchrony STS label for more information and crop rotation restrictions.
- Refer to the **REGIONAL USE MAPS** Map for the maximum rate of **Shafen Star** (or other fomesafen containing products) that may be applied in each geographic region. Do not apply to any field in Region 2, 3, 4, or 5 more than once every two years.
- Do not exceed 1.6 pints of **Shafen Star** per acre in one calendar year and also adhere to the maximum rate that may be applied in each geographic region (refer to the **REGIONAL USE MAPS**).
- Do not graze treated areas or harvest for forage or hay.
- Do not apply within 45 days of harvest.

APPENDIX

Scientific names are listed for those weeds referred to in the **Shafen Star** label.

COMMON NAME	SCIENTIFIC NAME
Amaranth, Palmer	<i>Amaranthus palmeri</i>
Amaranth, Spiny	<i>Amaranthus spinosus</i>
Anoda, Spurred	<i>Anoda cristata</i>
Balloon Vine	<i>Cardiospermum halicacabum</i>
Barnyardgrass	<i>Echinochloa crus-galli</i>
Bindweed, Field	<i>Convolvulus arvensis</i>
Bindweed, Hedge	<i>Calystegia sepium</i>
Broadleaf Signalgrass	<i>Brachiaria platyphylla</i>
Carpetweed	<i>Mollugo verticillata</i>
Citron (Wild Watermelon)	<i>Citrullus vulgaris</i>
Cocklebur, Common	<i>Xanthium strumarium</i>
Copperleaf, Hophornbeam	<i>Acalypha ostryifolia</i>
Copperleaf, Virginia	<i>Acalypha virginica</i>
Crabgrass	<i>Digitaria</i> spp.
Crotalaria, Showy	<i>Crotalaria spectabilis</i>
Croton, Tropic	<i>Croton glandulosus</i>
Cucumber, Volunteer	<i>Cucumis sativus</i>
Eclipta	<i>Eclipta prostrata</i>
Foxtail, Giant	<i>Setaria faberi</i>
Foxtail, Green	<i>Setaria viridis</i>
Foxtail, Yellow	<i>Setaria pumila</i>
Goosegrass	<i>Eleusine indica</i>
Groundcherry, Cutleaf	<i>Physalis angulata</i>
Hemp	<i>Cannabis sativa</i>
Horsenettle	<i>Solanum carolinense</i>
Jimsonweed	<i>Datura stramonium</i>

COMMON NAME	SCIENTIFIC NAME
Johnsongrass, Seedling	<i>Sorghum halepense</i>
Ladysthumb	<i>Polygonum persicaria</i>
Lambsquarters, Common	<i>Chenopodium album</i>
Mexicanweed	<i>Caperonia castaneifolia</i>
Milkweed, Climbing	<i>Sarcostemma cynanchoides</i>
Milkweed, Honeyvine	<i>Ampelamus albidus</i>
Morningglory, Cypressvine	<i>Ipomoea quamoclit</i>
Entireleaf	<i>Ipomoea hederacea</i> var. <i>integruscula</i>
Ivyleaf	<i>Ipomoea hederacea</i> var. <i>hederacea</i>
Purple Moonflower	<i>Ipomoea turbinata</i>
Red (Scarlet)	<i>Ipomoea coccinea</i>
Smallflower	<i>Jacquemontia tamnifolia</i>
Pitted (Small White)	<i>Ipomoea lacunosa</i>
Tall (Common)	<i>Ipomoea purpurea</i>
Palmleaf (Willowleaf)	<i>Ipomoea wrightii</i>
Mustard, Wild	<i>Brassica kaber</i>
Nightshade, Black	<i>Solanum nigrum</i>
Nutsedge, Yellow	<i>Cyperus esculentus</i>
Panicum, Fall	<i>Panicum dichotomiflorum</i>
Panicum, Texas	<i>Panicum texanum</i>
Pigweed, Redroot	<i>Amaranthus retroflexus</i>
Pigweed, Smooth	<i>Amaranthus hybridus</i>
Poinsettia, Wild	<i>Euphorbia heterophylla</i>
Purslane, Common	<i>Portulaca oleracea</i>
Pusley, Florida	<i>Richardia scabra</i>
Ragweed, Common	<i>Ambrosia artemisiifolia</i>
Ragweed, Giant	<i>Ambrosia trifida</i>
Redweed	<i>Melochia corchorifolia</i>
Sesbania, Hemp	<i>Sesbania exaltata</i>
Sicklepod	<i>Cassia obtusifolia</i>
Sida, Prickly	<i>Sida spinosa</i>
Smartweed, Pennsylvania	<i>Polygonum pensylvanicum</i>
Smellmelon	<i>Cucumis melo</i>
Spurge, Prostrate	<i>Euphorbia humistrata</i>
Spurge, Spotted	<i>Euphorbia maculata</i>
Starbur, Bristly	<i>Acanthospermum hispidum</i>
Sunflower, Common	<i>Helianthus annuus</i>
Trumpetcreeper	<i>Campsis radicans</i>
Velvetleaf	<i>Abutilon theophrasti</i>
Venice Mallow	<i>Hibiscus trionum</i>
Waterhemp, Common	<i>Amaranthus rudis</i>
Waterhemp, Tall	<i>Amaranthus tuberculatus</i>
Witchweed	<i>Striga asiatica</i>
Yellow Rocket	<i>Barbarea vulgaris</i>

STORAGE AND DISPOSAL

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

Prohibitions: Open dumping is prohibited. Do not reuse empty container.

Pesticide Storage: Store above 32°F in original containers only. If product solidifies, return to room temperature and agitate to reconstitute. 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 sand, earth or synthetic absorbent. Remove to chemical waste area.

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, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

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. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as manner of use or application, weather or crop conditions, 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, 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. To the extent consistent with applicable law: (1) 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 (2) Buyer and User assume the risk of any such use. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, SHARDA USA LLC MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS WARRANTED BY THIS LABEL. To the extent consistent with applicable law, in no event shall Sharda USA LLC be liable for any incidental, consequential or special damages resulting from the use or handling of this product. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF SHARDA USA LLC AND SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT OR, AT THE ELECTION OF SHARDA USA LLC OR SELLER, THE REPLACEMENT OF THE PRODUCT.

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