

83529-25

6/13/2012

1023



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON D C 20460

OFFICE OF CHEMICAL SAFETY
AND POLLUTION PREVENTION

JUN 13 2012

Lori Kohler
Wagner Regulatory Associates Inc
P O Box 640
7217 Lancaster Pike Suite A
Hockessin DE 19707

Subject Notification per PR Notice 98 10 – Add Florida State Specific Restriction
Shafen Star
EPA Reg No 83529 25
Application Dated – June 6 2012

Dear Ms Kohler

The Agency is in receipt of your Application for Pesticide Notification under Pesticide Registration Notice (PRN) 98 10 for the subject product

The Registration Division (RD) has conducted a review of this request for its applicability under PRN 98 10 and finds that the action requested falls within the scope of PRN 98 10 The label submitted with the application has been date stamped Notification and will be placed in our records

If you have any questions regarding this letter please contact Maggie Rudick at (703) 347 0257 or rudick_maggie@epa.gov

Sincerely

A handwritten signature in black ink, appearing to read "K. Montague".

Kathryn Montague Product Manager 23
Herbicide Branch
Registration Division (7505P)

Handwritten initials in black ink, possibly "JM".

20923



United States
Environmental Protection Agency
 Washington DC 20460

Registration
Amendment
 Other

OPP Identifier Number

Application for Pesticide Section I

1 Company/Product Number 83529 25	2 EPA Product Manager Kathryn Montague	3 Proposed Classification <input checked="" type="checkbox"/> None Restricted
4 Company/Product (Name) Sharda USA LLC/Shafen Star	PM# 23	
5 Name and Address of Applicant (Include Zip Code) Sharda USA LLC c/o Wagner Regulatory Associates Inc P O Box 640 Hockessin DE 19707 <input type="checkbox"/> Check if this is a new address	6 Expedited Review In accordance with FIFRA Section 3(c)(3) (b)(I) my product is similar or identical in composition and labeling to EPA Reg No Product Name	

Section II

<input type="checkbox"/> Amendment Explain below	<input type="checkbox"/> Final printed labels in response to Agency letter dated _____
<input type="checkbox"/> Resubmission in response to Agency letter dated _____	<input type="checkbox"/> Me Too Application _____
<input checked="" type="checkbox"/> Notification Explain below	<input type="checkbox"/> Other Explain below

Explanation Use additional page(s) if necessary (For Section I and Section II)
 Notification of addition of State requested language per PR Notice 98 10 This notification is consistent with the provisions of PR Notice 98 10 and EPA regulations at 40 CFR 152 46 and no other changes have been made to the labeling or the confidential statement of formula of this product I understand that it is a violation of 18 U S C Sec 1001 to willfully make any false statement to EPA I further understand that if this notification is not consistent with the terms of PR Notice 98 10 and 40 CFR 152 46 this product may be in violation of FIFRA and I may be subject to enforcement action and penalties under sections 12 and 14 of FIFRA

Section III

1 Material This Product Will Be Packaged in

Child Resistant Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Unit Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Water Soluble Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	2 Type of Container <input type="checkbox"/> Metal <input checked="" type="checkbox"/> Plastic <input type="checkbox"/> Glass <input type="checkbox"/> Paper <input type="checkbox"/> Other (Specify) HDPE lined bags
Certification must be submitted		If Yes No per Unit Packaging wgt container	If Yes No per Package wgt container

3 Location of Net Contents Information <input checked="" type="checkbox"/> Label <input type="checkbox"/> Container	4 Size(s) Retail Container 2 5 gallons	5 Location of Label Directions <input type="checkbox"/> On Label <input checked="" type="checkbox"/> On Labeling accompanying product
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6 Manner in Which Label is Affixed to Product <input type="checkbox"/> Lithograph <input checked="" type="checkbox"/> Paper glued <input type="checkbox"/> Stenciled	<input type="checkbox"/> Other _____
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Section IV

1 Contact Point (Complete items directly below for identification of individual to be contacted if necessary to process this application)

Name Lori Kohler	Title Agent for Sharda USA LLC	Telephone No (Incl. Area Code) (302) 635 7281
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Certification I certify that the statements I have made on this form and all attachments thereto are true accurate and complete I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law		6 Date Application Received (Stamped)
2 Signature 	3 Title Agent for Sharda USA LLC	
4 Typed Name Lori Kohler	5 Date June 6 2012	



Wagner Regulatory Associates Inc
P O Box 640
7217 Lancaster Pike Suite A
Hockessin Delaware 19707

June 6 2012

Document Processing Desk (NOTIF)
ATTN Kathryn Montague PM Team 23
Registration Division
U S Environmental Protection Agency
Office of Pesticide Programs (7504P)
Room S 4900 One Potomac Yard
2777 South Crystal Drive
Arlington Virginia 22202 4501

Dear Ms Montague

Subject Notification of Addition of State Requested Language per PR Notice 98 10
Shafen Star (EPA Reg No 83529 25)

Wagner Regulatory Associates Inc as agent for Sharda USA LLC submits the enclosed notification for the addition of state requested language for the above referenced product The State of Florida requested that use in Miami Dade County be restricted No other changes were made to this label

In support of this notification the following documents are attached

- Letter from Sharda USA LLC appointing Wagner Regulatory Associates Inc as its agent
- Application for Pesticide Notification (8570 1)
- Label with highlighted change and CD
- Certification with Respect to Label Integrity

If you have any questions about this submission please contact the undersigned at lori@wagnerreg.com or (302) 635 7281

Respectfully submitted

Lori Kohler
Agent for Sharda USA LLC

4 of 23

083529 00025 20120606 V2

Sharda USA LLC
Notification to add FL requested language



NOTIFICATION
JUN 13 2012

SHAFEN STAR

For Control of Weeds in Soybeans

Active Ingredient

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)

See additional precautionary statements and directions for use in the attached booklet

EPA Reg No 83529 25

EPA Est No

Net Contents

- 2.5 gallons
- _____gallons (bulk)

Manufactured for
Sharda USA LLC
7217 Lancaster Pike Suite A
Hockessin DE 19707

FIRST AID

If on skin or clothing	Take off contaminated clothing Rinse skin immediately with plenty of water for 15 20 minutes Call a Poison Control Center or doctor for treatment advice
If swallowed	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 by mouth to an unconscious person
If in eyes	Hold eye open and rinse slowly and gently with water for 15 20 minutes Remove contact lenses if present after the first 5 minutes then continue rinsing Call a Poison Control Center or doctor for treatment advice
NOTE TO PHYSICIAN Probable mucosal damage may contraindicate the use of gastric lavage	
Have the product container or label with you when calling a Poison Control Center or doctor or going for treatment	
HOT LINE NUMBER For 24 Hour Medical Emergency Assistance (Human or Animal) or Chemical Emergency Assistance (Spill Leak Fire or Accident) Call 1 800 888 8372	

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)

Some materials that are chemical resistant to this product are listed below If you want more options follow the instructions for category E on an EPA chemical resistance category selection chart

Applicators and other handlers must wear

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

Follow the manufacturer s instructions for cleaning/maintaining PPE If no such instructions for washables exist use detergent and hot water Kepp and wash PPE separately from other laundry

User Safety Recommendations**Users should**

- Wash thoroughly with soap and water after handling and before eating drinking chewing gum or using tobacco Remove and wash contaminated clothing before reuse
- 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

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 Do not apply when weather conditions favor drift from target area

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

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 and Seller harmless for any claims relating to such factors

SHARDA 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 and (2) Buyer and User assume the risk of any such use TO THE EXTENT CONSISTENT WITH APPLICABLE LAW SHARDA 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 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 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 OR SELLER THE REPLACEMENT OF THE PRODUCT

SHARDA and Seller offer this product and Buyer and User accept it subject to the foregoing Conditions of Sale and Limitation of Warranty and Liability which may not be modified except by written agreement signed by a duly authorized representative of SHARDA

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 such as barrier laminate nitrile rubber neoprene rubber or Viton
- Chemical resistant footwear plus socks

PRODUCT INFORMATION

Read all label directions before using

Shafen Star is a selective herbicide which may be applied preplant preemergence or postemergence for control or suppression of broadleaf weeds grasses and sedges in soybeans

Shafen Star is generally most effective and consistent when used postemergence 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 postemergent application but soybeans soon outgrow these effects and develop normally

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Optimum weed control is achieved by postemergent 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

Certain germinating broadleaf weeds grasses and sedges may be controlled or suppressed by soil residual activity from either preplant preemergent or postemergent 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

Information on Weed Resistance

Naturally occurring biotypes of certain broadleaf species with resistance to this herbicide and related products (same mode of action) are known to exist Selection of resistant biotypes through repeated use of these herbicides may result in control failures

If poor performance cannot be attributed to adverse weather conditions or improper application methods a resistant biotype may be present In such a case additional treatments with this herbicide or similar mode of action products are not recommended Consult your local company representative or agricultural advisor for assistance

APPLICATION DIRECTIONS

Application Timing

Best broad spectrum postemergence 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 recommendations 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 postemergence 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 Postemergence 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

Nonionic 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 preemergence 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

Ground Application

Use sufficient spray volume and pressure to ensure complete coverage of the target. A minimum spray volume of 15 gals/A 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 gals /A to ensure coverage of weed foliage.

The use of flat fan nozzles will result in the most effective postemergence 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 postemergent 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 postemergence applications but is suitable for preemergence applications. Cultivation of untreated areas may be needed following band applications. When making postemergence 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 postemergence band treatment by the following formulas

$$\frac{\text{Band width in inches}}{\text{Row width in inches}} \times \text{Broadcast rate per acre} = \text{Band herbicide rate per acre}$$

$$\text{Band width in inches} \times \text{Broadcast volume per acre} = \text{Band herbicide rate per acre}$$

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

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 postemergence.

PRECAUTIONS

- A maximum of 1.6 pts of Shafen Star (or a maximum of 0.375 lbs a.i./A of fomesafen from any product containing fomesafen) may be applied per acre per year in Region 1 (see Regional Use Map)
- A maximum of 1.6 pts of Shafen Star (or a maximum of 0.375 lbs 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 lbs 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 lbs 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 lbs 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)
- 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 supplemental labels may result in tank mix incompatibility, unsatisfactory performance and/or unsatisfactory crop injury.

- Apply postemergence 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
- 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 recommended 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

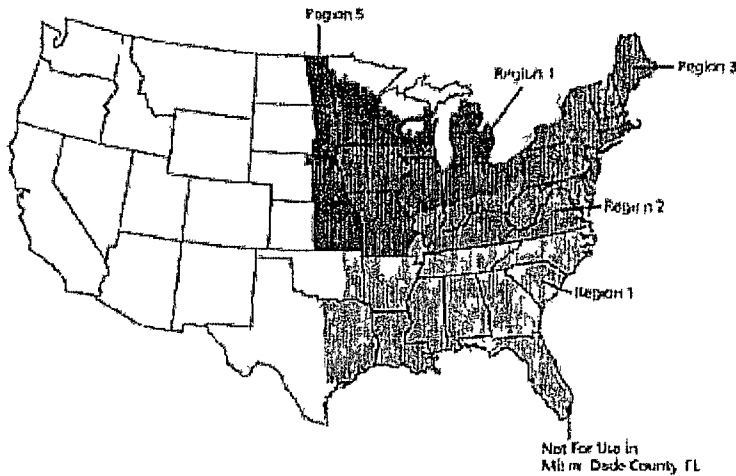
Replanting

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

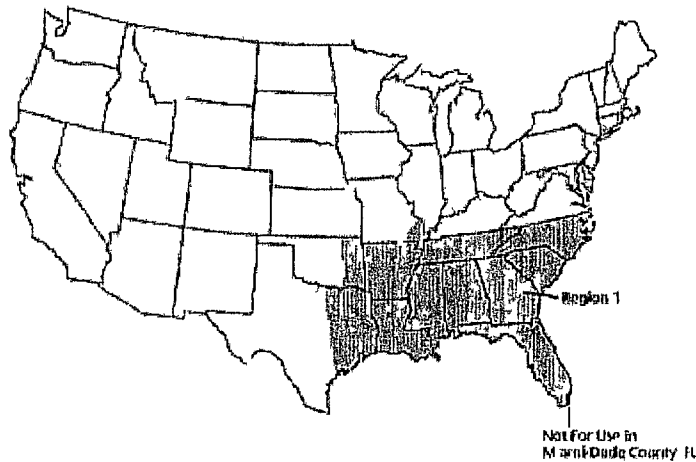
SHAFEN STAR REGIONAL USE MAP



REGION 1

(Maximum Rate 16 pts /A per 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

(Maximum Rate 1 3 pts /A alternate years)

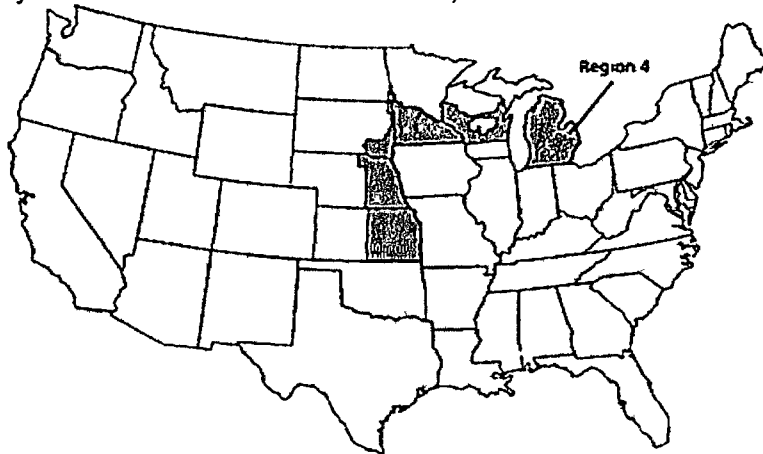
REGION 3 Includes the following states or portion of states where Shafen Star may be applied Connecticut Iowa Maine Massachusetts Missouri (all counties except for those listed in Region 1) New Hampshire New Jersey New York Pennsylvania (all areas except those listed in Region 2) Rhode Island Vermont 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 pts /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)



APPLICATION RATES FOR WEED GROWTH STAGES

Weed	Shafen Star Rate (pts /A) Maximum Growth Stage Controlled At			
	3/4 pts /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
Balloonvine	—	—	2	4
Carpeweed	—	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

Weed	Shafen Star Rate (pts /A) Maximum Growth Stage Controlled At			
	3/4 pts /A # of True Leaves	1 pt/A # of True Leaves	1 25 pts /A # of True Leaves	1 5 pts /A # of True Leaves
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
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*	Coty edon*
Sida Prickly		2*	2	4
Smartweed Pennsylvania	4*	4	6	6
Smellmelon		2	2	4

Weed	Shafen Star Rate (pts /A) Maximum Growth Stage Controlled At			
	3/4 pts /A # of True Leaves	1 pt/A # of True Leaves	1 25 pts /A # of True Leaves	1 5 pts /A # of True Leaves
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 postemergence applications and controlled or suppressed by preemergence applications of Shafen Star at 1 1 5 pts/A Consult Use Rate Table 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 postemergence 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

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 postemergence 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.

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 postemergence to any soybean variety for additional broadleaf weed control. Refer to the Synchrony STS label for more information and crop rotation restrictions.

Always read and follow the recommendations, 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 postemergence control of many weeds such as morning glory spp, hemp sesbania, waterhemp, and black nightshade which are known to have tolerance to glyphosate but are susceptible to Shafen Star.

FOLLOW THE RECOMMENDATIONS 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: Postemergence 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 recommendations, restrictions, and limitations for all products used. The most restrictive labeling of any product applies.

AERIAL SPRAY DRIFT MANAGEMENT ADVISORY

SPRAY DRIFT MANAGEMENT

AVOIDING SPRAY DRIFT AT THE APPLICATION SITE IS THE RESPONSIBILITY OF THE APPLICATOR. The interaction of many equipment and weather related factors determines the potential for spray drift. The applicator is responsible for considering all these factors when making decisions.

The following drift management requirements must be followed to avoid off target movement from aerial applications to agricultural field crops. These requirements do not apply to forestry applications, public health uses or to applications using dry formulations.

- 1 The distance of the outer most nozzles on the boom must not exceed 3/4 the length of the wingspan or rotor.
- 2 Nozzles must always point backward parallel with the air stream and never be pointed downwards more than 45 degrees.

Where states have more stringent regulations they should be observed.

The applicator should be familiar with and take into account the information covered in the AERIAL DRIFT REDUCTION ADVISORY.

AERIAL DRIFT REDUCTION ADVISORY

[This section is advisory in nature and does not supersede the mandatory label requirements.]

INFORMATION ON DROPLET SIZE

The most effective way to reduce drift potential is to apply large droplets. The best drift management strategy is to apply the largest droplets that provide sufficient coverage and control. Applying larger droplets reduces drift potential but will not prevent drift if applications are made improperly or under unfavorable environmental conditions (See Wind, Temperature and Humidity, and Temperature Inversions).

CONTROLLING DROPLET SIZE

Volume Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets.

Pressure Do not exceed the nozzle manufacturer's recommended pressures. For many nozzle types, lower pressure produces larger droplets. When higher flow rates are needed, use higher flow rate nozzles instead of increasing pressure.

Number of Nozzles Use the minimum number of nozzles that provide uniform coverage.

Nozzle Orientation Orienting nozzles so that the spray is released parallel to the airstream produces larger droplets than other orientations and is the recommended practice. Significant deflection from horizontal will reduce droplet size and increase drift potential.

Nozzle Type Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles. Solid stream nozzles oriented straight back produce the largest droplets and the lower drift.

BOOM LENGTH

For some use patterns reducing the effective boom length to less than 3/4 of the wingspan or rotor length may further reduce drift without reducing swath width

APPLICATION HEIGHT

Applications should not be made at a height greater than 10 ft above the top of the target plants unless a greater height is required for aircraft safety Making applications at the lowest height that is safe reduces exposure of droplets to evaporation and wind

SWATH ADJUSTMENT

When applications are made with a crosswind the swath will be displaced downwind Therefore on the up and downwind edges of the field the applicator should compensate for this displacement by adjusting the path of the aircraft upwind Swath adjustment distance should increase with increasing drift potential (higher wind smaller drops etc)

WIND

Drift potential is lowest between winds speeds of 2 10 mph However many factors including droplet size and equipment type determine drift potential at any given speed Application should be avoided below 2 mph due to variable wind direction and high inversion potential NOTE Local terrain can influence wind patterns Every applicator should be familiar with local wind patterns and how they affect spray drift

TEMPERATURE AND HUMIDITY

When making applications in low relative humidity set up equipment to produce larger droplets to compensate for evaporation Droplet evaporation is most severe when conditions are both hot and dry

TEMPERATURE INVERSIONS

Applications should not occur during a temperature inversion because drift potential is high Temperature inversions restrict vertical air mixing which causes small suspended droplets to remain in a concentrated cloud This cloud can move in unpredictable directions due to the light variable winds common during inversions Temperature inversions are characterized by increasing temperatures with altitude and are common on nights with limited cloud cover and light to no wind They begin to form as the sun sets and often continue into the morning Their presence can be indicated by ground fog however if fog is not present inversions can also be identified 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

SENSITIVE AREAS

The pesticide should only be applied when the potential for drift to adjacent sensitive areas (e.g residential areas bodies of water known habitat for threatened or endangered species nontarget crops) is minimal (e.g when wind is blowing away from the sensitive areas)

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>
Balloonvine	<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 gstryifolia</i>
Copperleaf Virginia	<i>Acalypha virginica</i>
Crabgrass	<i>Digitaria spp</i>
Crotalaria Showy	<i>Crotalaria spectabilis</i>
Croton, Tropic	<i>Croton glandulosus</i>
Cucumber, Volunteer	<i>Cucumissativas</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>
Johnsongrass, Seedling	<i>Sorghum halepense</i>
Ladysthumb	<i>Polygonum persicaria</i>
Lambsquarters, Common	<i>Chenopodium album</i>
Mexicanweed	<i>Caperonia castaniifolia</i>
Milkweed, Climbing	<i>Sarcostemma cyanchoides</i>
Milkweed Honeyvine	<i>Ampelamus albidus</i>
Morningglory, Cypressvine	<i>Ipomoea quamodit</i>
Entireleaf	<i>Ipomoea hederacea var integruscula</i>
Ivyleaf	<i>Ipomoea hederacea var 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>

COMMON NAME	SCIENTIFIC NAME
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>Mchardia 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 tuberculatos</i>
Witchweed	<i>Striga aslatica</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 1/4 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**

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