

# UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION

December 22, 2022

Annette Marine Regulatory Assistant Sharda USA LLC c/o Wagner Regulatory Associates, Inc. P.O. Box 640 Hockessin, DE 19707

Subject: Registration Review Label Amendments Incorporating Mitigation from the

National Marine Fisheries Services (NMFS) Biological Opinions on the Effects of

Prometryn on Pacific Salmonids

Product Name: Sharda Prometryn 44.4% SC

EPA Registration Number: 83529-128

Application Date: 9/8/2021 Decision Number: 578347

# Dear Annette Marine:

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 NMFS' Biological Opinion on the effects of Prometryn on Pacific salmonids. The Agency has concluded that your submission is acceptable. The label referred to above, submitted in connection with registration under FIFRA, as amended, is acceptable.

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

A stamped copy of your labeling is enclosed for your records. This labeling supersedes all previously accepted labeling. You must submit one copy of the final printed labeling before you release the product for shipment with the new labeling. In accordance with 40 CFR 152.130(c), you may distribute or sell this product under the previously approved labeling for 18 months from the date of this letter. After 12 months, you may only

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distribute or sell this product if it bears this new revised labeling or subsequently approved labeling. "To distribute or sell" is defined under FIFRA section 2(gg) and its implementing regulation at 40 CFR 152.3.

If you have any questions about this letter, please contact Jaclyn Pyne at pyne.jaclyn@epa.gov.

Sincerely,

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

Enclosure

[MASTER LABEL]

PROMETRYN GROUP 5 HERBICIDE

# **Sharda Prometryn 44.4% SC**

**ABN: Paco** 

For Selective Control of Annual Broadleaf and Grass Weeds in Carrots, Celeriac, Celery, Chinese Celery, Florence Fennel, Cilantro, Cotton, Okra, Parsley, Pigeon Peas, Rhubarb, and Sesame.

# KEEP OUT OF REACH OF CHILDREN CAUTION

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

FIRST AID				
IF SWALLOWED:	Call a poison control center or doctor immediately for treatment advice.			
	Have person sip a glass of water if able to swallow.			
	Do not induce vomiting unless told to do so by a poison control center or doctor.			
	Do not give anything by mouth to an unconscious person.			
IF ON SKIN OR	Take off contaminated clothing			
CLOTHING:	Rinse skin immediately with plenty of water for 15-20 minutes.			
	Call a poison control center or doctor for treatment advice.			
IF IN EYES:	Hold eye open and rinse slowly and gently with water for 15-20 minutes.			
	<ul> <li>Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> </ul>			
	Call a poison control center or doctor for treatment advice.			
IF INHALED:	Move person to fresh air.			
	• If person is not breathing, call 911 or ambulance, then give artificial respiration, preferably by			
mouth-to-mouth, if possible.				
	Call a poison control center or doctor for treatment advice.			
HOTLINE NUMBER				

Optional referral statements when booklets and container labels are used:

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

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.

EPA Reg. No. 83529-128

Hockessin, Delaware 19707

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



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Net Contents: Gals. [L.]

ACCEPTED

Dec 22, 2022

Under the Federal Insecticide, Fungicide and Rodenticide Act as amended, for the pesticide registered under

EPA Reg. No. 83529-128

# PRECAUTIONARY STATEMENTS

# HAZARDS TO HUMANS AND DOMESTIC ANIMALS CAUTION

Harmful if absorbed through skin or inhaled. Causes moderate eye irritation. Avoid contact with eyes, skin, or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Do not breathe vapor or spray mist.

# PERSONAL PROTECTIVE EQUIPMENT (PPE)

# Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves made of barrier laminate, butyl rubber ≥14 mils, nitrile rubber ≥14 mils, neoprene rubber ≥14 mils, polyvinyl chloride (PVC) ≥14 mils, or Viton® ≥14 mils
- Shoes plus socks

# In addition, mixers and loaders supporting aerial applications must wear:

- Chemical-resistant apron
- A NIOSH approved particulate respirator with an R or P filter with NIOSH approval number prefix TC-84A; or a NIOSH-approved powered air purifying respirator with an HE filter with NIOSH approval number prefix TC-21C.

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.

#### **ENGINEERING CONTROLS STATEMENT**

# **Closed Systems for Aerial Application**

Pesticide handlers must use closed systems when mixing and loading prometryn for aerial applications.

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 hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

# **ENVIRONMENTAL HAZARDS**

# **Non-Target Organism Advisory Statement**

This product is toxic to plants and may adversely impact the forage and habitat of non-target organisms, including pollinators, in areas adjacent to the treated site. Protect the forage and habitat of non-target organisms by following label directions intended to minimize spray drift. Do not apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean highwater mark. Drift or runoff from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not apply where runoff is likely to occur. Do not apply when weather conditions favor drift from treated areas. Do not contaminate water when cleaning equipment or disposing of equipment wash waters.

# **Reporting Ecological Incidents**

To report ecological incidents, including mortality, injury, or harm to plants and animals, contact Sharda USA LLC at (302) 635-7632.

# **DIRECTIONS FOR USE**

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

# **Endangered Species Protection Requirements**

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

This product can only be used in accordance with the Directions for Use on this label. 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 regulations.

FAILURE TO FOLLOW THE DIRECTIONS FOR USE AND PRECAUTIONS ON THIS LABEL MAY RESULT IN CROP INJURY, POOR PERFORMANCE, AND/OR ILLEGAL RESIDUES.

#### **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 **48 hours** for carrots, celeriac, celery, and fennel. Do not enter or allow worker entry into treated areas during the REI of **12 hours** for all other crops.

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

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

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

#### PRODUCT INFORMATION

Sharda Prometryn 44.4% SC is a selective herbicide that may be applied either before or after weeds emerge for control of most annual broadleaf weeds and grasses, including groundcherry, lambsquarters, annual morningglory, malva, mustard, black nightshade, pigweed (carelessweed), purslane, Florida pusley, ragweed, smartweed, teaweed (prickly sida), barnyardgrass (watergrass), crabgrass, foxtail, goosegrass, junglerice, *Panicum* spp., signalgrass (and other *Brachiaria* spp.), and wild oats. Sharda Prometryn 44.4% SC also controls shallow-germinating seedlings of cocklebur, coffeeweed, and sandbur. Sharda Prometryn 44.4% SC will also provide partial control of spurred anoda (cottonweed), rough blackfoot (ironweed, cluster flaveria), and prairie sunflower in New Mexico and western Texas. Sharda Prometryn 44.4% SC does not control johnsongrass, bermudagrass, other established perennials, or sprangletop at selective rates.

When applied before weeds emerge, **Sharda Prometryn 44.4% SC** enters weeds through their roots. Thus, its effectiveness depends on moisture to move it into the soil. Under very dry soil conditions after application, a shallow cultivation or rotary hoeing will generally result in better weed control. When applied to emerged weeds, **Sharda Prometryn 44.4% SC** provides foliar knockdown and/or residual control of later germinating weeds, depending on the rate applied.

# **RESISTANCE MANAGEMENT**

**Sharda Prometryn 44.4% SC** contains prometryn and is classified in the triazine chemical class as a Group 5 herbicide, Inhibitor of photosynthesis at photosystem II site A. Herbicide resistance is defined as the inherited ability of a plant to survive and reproduce following exposure to a dose of herbicide normally lethal to the wild type. In a plant, resistance may be naturally occurring or induced by such techniques as genetic engineering or selection of variants produced by tissue culture or mutagenesis. Any weed population may contain or develop plants that are naturally resistant to **Sharda Prometryn 44.4% SC** and other Group 5 herbicides. Weed species with acquired resistance to Group 5 herbicides may eventually dominate the weed population if Group 5 herbicides are used repeatedly in the same field or in successive years as the primary method of control for targeted species. This may result in partial or total loss of control of those species by **Sharda Prometryn 44.4% SC** or other Group 5 herbicides.

To delay herbicide resistance, consider the below best practices for resistance management:

- Plant into weed-free fields and keep fields as weed-free as possible.
- To the extent possible, use a diversified approach toward weed management. Whenever possible, incorporate multiple weed-control practices such as mechanical cultivation, biological management practices, and crop rotation.
- Fields with difficult to control weeds must be rotated to crops that allow the use of herbicides with alternative mechanisms of action or different management practices.
- To the extent possible, do not allow weed escapes to produce seeds, roots, or tubers. Manage weed seeds at harvest and post-harvest to prevent a buildup of the weed seed-bank.
- Prevent field-to-field and within-field movement of weed seed or vegetative propagules. Thoroughly clean plant residues from equipment before leaving fields.
- Prevent an influx of weeds into the field by managing field borders.
- Identify weeds present in the field through scouting and field history and understand their biology. The weed-control program must consider all of the weeds present.
- Difficult to control weeds may require sequential applications of herbicides with differing mechanisms of action.
- Apply this herbicide at the correct timing and rate needed to control the most difficult weed in the field.
- Use a broad-spectrum soil-applied herbicide with a mechanism of action that differs from this product as a foundation in a weed-control program. Do not use more than 2 applications of this or any other herbicide with the same mechanism of action within a single growing season unless mixed with an herbicide with another mechanism of action with an overlapping spectrum for the difficult-to-control weeds.

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- If resistance is suspected, treat weed escapes with an herbicide with a different MOA or use non-chemical methods to remove escapes.
- Monitor treated weed populations for loss of field efficacy.
- Scout field(s) before and after application.
- Report lack of performance to Sharda USA LLC or their representative.

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.

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

# MANDATORY SPRAY DRIFT MANAGEMENT

# **Aerial Applications:**

- Do not release spray at a height greater than 10 feet above the vegetative canopy, unless a greater application height is necessary for pilot safety.
- Applicators are required to use a medium or coarser droplet size (ASABE S572.1).
- For aerial applications: Do not apply when wind speeds exceed 15 mph at the application site. If 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 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 field.
- Nozzles must be oriented so the spray is directed toward the back of the aircraft.
- Do not apply when wind speeds exceed 15 mph at the application site.
- Do not apply during temperature inversions.

# **Ground Boom Applications:**

- Users must only apply with the nozzle height recommended by the manufacturer, but no more than 4 ft. above the ground or crop canopy.
- Applicators are required to use a medium or coarser droplet size (ASABE S572.1).
- Do not apply when wind speeds exceed 15 mph 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
must 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 must 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.

#### **SENSITIVE AREAS**

Apply the pesticide when the potential for drift to adjacent sensitive areas (e.g., residential areas, bodies of water, known habitat for threatened or endangered species, non-target crops) is minimal (e.g., when wind is blowing away from the sensitive areas).

#### **APPLICATION INSTRUCTIONS**

Do not apply this product in a way that will make contact with workers or other persons, either directly or through drift. Only protected handlers may be in the area during application.

# **Ground Application (All Uses)**

Use conventional ground sprayers equipped with nozzles that provide accurate and uniform application.

Calibrate sprayer before use and recalibrate at the start of each season and when changing carriers. Unless otherwise specified, use a minimum of 20 gals. of spray mixture per acre for all pre-plant incorporated, pre-emergence, and post-emergence applications (with or without surfactant) with ground equipment.

Use a pump with capacity to: (1) maintain nozzles at 35 - 40 PSI, and (2) provide sufficient agitation in tank to keep mixture in suspension. A centrifugal pump which provides propeller shear action is advised for dispersing and mixing this product. The pump must provide a minimum of 20 gals. per minute per 100 gals. tank size circulated through a correctly positioned sparger tube or jets.

For pre-plant incorporated or pre-emergence application, use flat fan nozzle tips. For post-emergence band application, use drop extraction tubes off-center nozzle tips. For post-emergence broadcast application, use flat fan or off-center nozzle tips. Use flood nozzle tips only in Arizona and California for lay-by treatment in cotton at least 18 inches tall.

Use screens to protect the pump and to prevent nozzles from clogging. Screens placed on the suction side of the pump must be 16-mesh or coarser. Do not place a screen in the recirculation line. Use 50-mesh or coarser screens between the pump and boom, and where required, at the nozzles. Check nozzle manufacturer's recommendations.

For band applications, calculate amount to be applied per acre as follows:

Band Width In Inches X Broadcast Rate per Acre = Amount Needed per Acre of Field

# **Aerial Application (Cotton and Pigeon Peas Only)**

Use aerial application only where broadcast applications are specified. Use a minimum of 5 gals. of spray mixture per acre. Avoid applications under conditions where uniform coverage cannot be obtained or where excessive spray drift may occur.

Avoid application to humans or animals. Flagmen and loaders must avoid inhalation of spray mist and prolonged contact with skin.

To assure that spray will be controllable within the target area when used according to label directions, make applications at a maximum height of 10 ft. above vegetation, using low-drift nozzles at a maximum pressure of 40 PSI, and restrict application to periods when wind speed does not exceed 10 mph. To assure that spray will not adversely affect adjacent sensitive non-target plants, apply **Sharda Prometryn 44.4% SC** by aircraft at a minimum upwind distance of 400 ft. from sensitive plants.

# **Seedbed Preparation**

To ensure proper placement of **Sharda Prometryn 44.4% SC**, seedbeds must be well prepared and as free as possible from trash and clods. A firm seedbed is best for obtaining effective weed control. Uniformity in height and width of seedbed is essential for proper post-emergence applications of **Sharda Prometryn 44.4% SC**. Beds must be low and flat. Take care to avoid planter marks. Wide planter packing wheels or rollers are advised. Wheel furrows must be uniform in depth. Mount the sprayer so that it follows the same rows as the planter.

#### **Application Through Irrigation Systems**

Chemigation and Pre-emergence or Post-emergence Application to Celery, Chinese celery, Celeriac, or Florence fennel Only Apply this product only through sprinkler, including center pivot, lateral move, end tow, side (wheel) roll, traveler, big gun, solid set irrigation systems. Do not apply this product through any other type of irrigation system.

Crop injury, lack of effectiveness, or illegal residues in the crop can result from nonuniform distribution of treated water.

If you have questions about calibration, contact State Extension Service 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 down and make necessary adjustments should the need arise.

**Chemigation Systems Connected to Public Water Systems:** If the chemigation system is connected to a public water supply, the following conditions must also be met:

- Public water systems 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.
- Chemigation systems connected to public water systems must contain a functional reduced-pressure zone, backflow preventer (RPZ), or the functional equivalent in the water supply line upstream from a point of pesticide introduction. As an option to the RPZ, the water from the public water system must 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.
- 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 shutdown.
- 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.
- 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.
- Upon completion of herbicide application, remove scale, pesticide residues, and other foreign matter from the supply tank and entire injector system. Flush thoroughly with clean water.

**Sprinkler Chemigation:** To apply a pesticide using sprinkler chemigation, the chemigation system must meet the following specifications:

- 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 distribution is adversely affected.
- 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.
- Do not apply when wind speed favors drift beyond the area intended for treatment.

# **Application Procedures**

- Mix in clean supply tank the specified amount of this product for acreage to be covered and needed quantity of water.
- This product must not be tank mixed with other pesticides, surfactants, or fertilizers unless prior use has shown the combination non-injurious under your conditions of use.
- It is the pesticide user's responsibility to ensure that all products in the listed mixtures are registered for the intended use. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.
- Provide constant mechanical agitation in supply tank to keep this product suspended throughout application operations.
- On all crops, use sufficient gallonage of water to obtain thorough and uniform coverage, but not cause runoff or excessive leaching. This will vary depending on equipment, pest problem, and stage of crop growth. Application of more or less than optimal quantity of water may result in decreased chemical performance, crop injury, or illegal residues.
- Meter this product into the irrigation water uniformly during the period of operation.
- Do not overlap application. Follow specified label rates, application timing, and other directions and precautions for crop being treated.
- If sprinkler irrigation is intended to replace incorporation, use sufficient water to activate herbicide. The exact amount is highly dependent on moisture conditions and soil type, however ¼ to ½ acre-inch may be appropriate as a starting point. Pre-irrigation may be beneficial under dry conditions. Additional irrigation may be needed following application if rainfall is scant.

#### **MIXING PROCEDURES**

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

#### All Uses

- 1. Be sure sprayer is clean and not contaminated with any other materials, or crop injury or sprayer clogging may result.
- 2. Fill tank ¼ full with clean water.
- 3. Start agitation.
- 4. Be certain that the agitation system is working properly and creates a rippling or rolling action on the liquid surface.

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- 5. Pour product directly from container into tank.
- 6. Continue filling tank until 90% full. Increase agitation if necessary to maintain surface action.
- 7. Add tank mix herbicide(s).

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Cleaning: Wash sprayer thoroughly with clean water immediately after use. Do not use the same sprayer without thoroughly cleaning on sensitive crops, as even small residues of **Sharda Prometryn 44.4% SC** in the tank may cause injury to these crops.

# **ROTATIONAL CROP RESTRICTIONS**

The following crops may be planted at the specified interval following application of Sharda Prometryn 44.4% SC to all crops on this label except cotton.

Crop	Replant/Plant-Back Interval (Months)
Cabbage, Carrot, Celeriac, Celery, Chinese Celery, Corn, Cotton, Dill, Florence Fennel, Fennel, Okra, Peas, and Sesame	
Onions and Red Beets	8
All Other Crops	12

#### Restrictions:

- Do not replant or rotate any crop if more than 4 pts. per acre of Sharda Prometryn 44.4% SC has been applied to the previous
- Do not use this table as guidance to replant or rotate any crop after treatment of cotton by Sharda Prometryn 44.4% SC.

# **Rotational Crop Restrictions Following Cotton**

The following crops may be planted at the specified interval following application of **Sharda Prometryn 44.4% SC** to cotton.

Crop	Replant/Plant-Back Interval (Months)
Cabbage, Cover Crops (including oats, sorghum, winter barley,	
winter rye, and winter wheat (all must be plowed down and	Fall
not used for food or feed)), Okra, Peas, and Sweet Corn	
Onions and Red Beets	8
Spring-Seeded Crops in Arizona and California and	April 1 <sup>st</sup> (year following application)
Spring-Seeded Vegetables in the Rio Grande Valley of Texas	April 1" (year following application)
All other crops	12

Cotton may be replanted in soil previously treated with Sharda Prometryn 44.4% SC. Application of a second pre-emergence treatment may result in crop injury.

# Restrictions:

- Do not replant or rotate any crop if more than 1 of the following applications of Sharda Prometryn 44.4% SC are used: pre-plant incorporated, pre-emergence or only 1 post-directed treatment.
- Do not replant or rotate any crop until the following year where a lay-by or multiple applications of Sharda Prometryn 44.4% SC are made.

#### **CROP USE DIRECTIONS**

# CARROT

Sharda Prometryn 44.4% SC can be applied pre-emergence and or post-emergence over the top to carrot. Read and follow all directions for use in carrot.

# **Pre- and Post-Emergence**

Apply up to 3 applications of Sharda Prometryn 44.4% SC at the rate of 2 - 4 pts./A per application. Apply 1 pre-emergence at 2 - 4 pts./A. Make 1 post-emergence application at up to 4 pts./A or 2 post-emergence applications each at a maximum of 2 pts./A through the 6-leaf stage of carrot development. Make uniform applications of Sharda Prometryn 44.4% SC in a minimum of 20 gals. of water per acre. When applying to emerged weeds add 2 qts. of a nonionic surfactant (NIS) or wetting agent (approved for intended use) to 100 gals. of spray mixture (0.5%) v/v or 1 gal. of a non-phytotoxic crop oil concentrate (COC) containing 15 - 20% approved emulsifier to 100 gals. of spray mixture (1% v/v).

#### **Restrictions:**

- Do not apply within 30 days of harvest.
- Do not exceed 8 pts. per acre (4 lbs. a.i./A) of **Sharda Prometryn 44.4% SC** per crop cycle.
- Do not exceed 4 pts./A (2 lbs. a.i./A) of **Sharda Prometryn 44.4% SC** in one application.
- Do not make more than 3 applications per crop cycle.
- Do not apply **Sharda Prometryn 44.4% SC** to more than 2 carrot crop cycles on the same acre per year.
- Do not exceed 16 pts. per acre (8 lbs. a.i./A) of Sharda Prometryn 44.4% SC per year.
- Do not enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 48 hours (2 days).

# **CELERIAC**

# **Transplants**

Make a single broadcast application at 1.6 - 4 pts./A in a minimum of 20 gals. of water per acre after the crop has 6 - 8 leaves. Application may be made over the crop. Within the rate ranges given, use the lower rate on relatively coarse-textured soils and soils low in organic matter; use the higher specified rate on relatively fine-textured soils and soils high in organic matter. Apply before weeds are 2" tall.

# **Restrictions:**

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- Do not apply to the crop within 60 days of harvest.
- Do not exceed 4 pts. per acre (2 lbs. a.i./A) of Sharda Prometryn 44.4% SC per crop cycle.
- Do not exceed 4 pts. per acre (2 lbs. a.i./A) of Sharda Prometryn 44.4% SC in one application
- Do not make more than one application.
- Do not apply **Sharda Prometryn 44.4% SC** to more than 2 celeriac crop cycles on the same acre per year.
- Do not exceed 16 pts. per acre (8 lbs. a.i./A) of **Sharda Prometryn 44.4% SC** per year.
- Do not enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 48 hours (2 days).

#### **CELERY, CHINESE CELERY, FLORENCE FENNEL**

#### Seedbeds

Broadcast 1.2 - 1.6 pts. in a minimum of 20 gals. of water per acre after the crop has 2 - 5 true leaves. Application may be made over the crop. Apply only after seedbed covers have been removed from seedbeds for at least 1 week. Apply only once per year to seedbeds.

# **Direct-Seeded Crop**

Apply Sharda Prometryn 44.4% SC at rates given below in a minimum of 20 gals. of water per acre. Within the rate ranges given, use the lower rates on coarse-textured soils and soils low in organic matter; use the higher specified rates on fine-textured soils and soils high in organic matter.

**Pre-Emergence:** Broadcast 2.4 - 3.2 pts./A at planting or shortly after planting before crop emerges.

Post-Emergence: Broadcast 1.6 - 2 pts./A after crop has 2 - 5 true leaves. Application may be made over the crop. Apply before weeds are 2" tall.

#### **Precautions:**

Injury to direct-seeded crop may occur if:

- Application is made to a crop under water stress.
- Post-emergence treatments of Sharda Prometryn 44.4% SC are applied with other pesticides. Apply only after foliar applications of other pesticides are dry.
- Application is made within 2 weeks after an application of a herbicidal oil, such as "carrot" oil.

#### **Transplants**

Apply 1 application at the appropriate rate from Table 1 in a minimum of 20 gals. of water per acre during the 2- to 6-week period after transplanting. Within the rate ranges given, use the lower rate on relatively coarse-textured soils and soils low in organic matter; use the higher specified rate on relatively fine-textured soils and soils high in organic matter. A single or split application may be made over the crop, at a total combined rate not to exceed the maximum in **Table 1**. Apply before weeds are 2" tall.

Table 1 Transplanted Crop

Table 1. Transplanted Crop				
State	Soil	Broadcast Rate/Acre (Pts.)	Broadcast Rate/Acre (Lbs. a.i.)	
Florida	Sandy or Muck	1.6 - 3.2	0.8 - 1.6	
Arizona, California, and Texas	Coarse-Textured	2 - 3.2	1 – 1.6	
Alizolia, California, and Texas	Fine-Textured	3.2 - 4	1.6 – 2	
Michigan and Ohio	Fine-Textured or Muck	2 - 4	1 – 2	
Wisconsin	Fine-Textured	3.2 - 4	1.6 - 2	

# **Restrictions:**

- Do not apply to the crop within 40 days of harvest.
- Do not exceed 4 pts. per acre (2 lbs. a.i./A) of **Sharda Prometryn 44.4% SC** in one application.
- Do not exceed 4 pts. per acre (2 lbs. a.i./A) of Sharda Prometryn 44.4% SC per crop cycle.
- Do not make more than 1 application per year to seedbeds.
- Make either 1 pre-emergence or 1 post-emergence application (not both) per crop.
- Do not use on sand or loamy sand.
- Do not apply Sharda Prometryn 44.4% SC to more than 2 celery, Chinese celery, or Florence fennel crop cycles on the same acre per year.
- Do not exceed 16 pts. per acre (8 lbs. a.i./A) of Sharda Prometryn 44.4% SC per year.
- Do not enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 48 hours (2 days).

### **CILANTRO**

Sharda Prometryn 44.4% SC can be applied post-planting, pre-emergence to cilantro. Read and follow all directions for use in cilantro.

# **Pre-Emergence**

Make 1 application of Sharda Prometryn 44.4% SC at the rate of 2 - 3.2 pts./A. Use the lower rates on coarse-textured soils and soils low in organic matter; use the higher specified rates on fine-textured soils and soils high in organic matter. Make uniform applications of Sharda Prometryn 44.4% SC in a minimum of 20 gals. of water per acre.

# **Restrictions:**

- Do not apply within 30 days of harvest.
- Do not make more than one application.

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- Do not exceed 3.2 pts. per acre (1.6 lbs. a.i./A) of Sharda Prometryn 44.4% SC in one application
- Do not exceed 3.2 pts. per acre of Sharda Prometryn 44.4% SC per crop cycle.
- Do not use on sand or loamy sand soil.
- Do not apply Sharda Prometryn 44.4% SC to more than 2 cilantro crop cycles on the same acre per year.
- Do not exceed 6.4 pts. per acre of **Sharda Prometryn 44.4% SC** per year.

# **COTTON**

#### **Restrictions:**

- Do not apply more than a total of 10.3 pts. per acre (5.15 lbs. a.i./A) of **Sharda Prometryn 44.4% SC** on sandy loam soil or 11.9 pts. per acre (5.95 lbs. a.i./A) of **Sharda Prometryn 44.4% SC** on medium or fine soil per year.
- Do not feed treated forage to livestock or graze treated areas.
- Do not use on glandless cotton varieties.

Closed Systems for Aerial Applications: Pesticide handlers must use closed systems when mixing and loading prometryn for aerial applications.

#### Sharda Prometryn 44.4% SC Alone

**Sharda Prometryn 44.4% SC** may be applied pre-plant incorporated or pre-emergence and/or post-emergence as specified in the following tables. The post-emergence applications may follow pre-plant incorporated or pre-emergence treatments of **Sharda Prometryn 44.4% SC**.

# Pre-Plant Incorporation (Arizona, California, and New Mexico)

Apply **Sharda Prometryn 44.4% SC** at the appropriate rate shown in **Table 2** as a broadcast or band treatment. If broadcast, treat the flat soil surface prior to listing. If banded, apply over partially finished or finished beds. Incorporate up to 4" deep immediately after application with PTO-driven equipment, double disk, rolling cultivator, rolling cultivators in tandem, or bed conditioner.

**Table 2. Pre-Plant Incorporation** 

State	Soil Texture	Broadcast Rate/Acre (Pts.)	Broadcast Rate/Acre (Lbs. a.i.)
	Sand, Loamy Sand	DO NOT USE	DO NOT USE
Arizona, California,	Sandy Loam (Arizona and California Only)	2.4 - 3.2	1.2 – 1.6
and New Mexico	Sandy Loam and Loams (New Mexico Only)	3.2	1.6
	Silt Loam and Clay	4.8	2.4

# **Pre-Emergence**

Apply at planting or shortly after planting at the appropriate rate shown in **Table 3**. **Sharda Prometryn 44.4% SC** may be used on cotton planted flat, on beds, or in furrows. To avoid concentration of **Sharda Prometryn 44.4% SC** in the seed furrow, do not make broadcast applications to cotton planted in furrows deeper than 2". Band applications may be made to cotton planted in furrows deeper than 2", but band width must not exceed the width of the bottom of the furrow. If banded, do not cover treated bands with soil while cultivating untreated row middles. Cotton may be replanted in soil previously treated with **Sharda Prometryn 44.4% SC**.

# Restrictions:

- Do not use on sand or loamy sand, on shallow soils with caliche subsoils, or in areas with caliche outcroppings.
- Do not apply a second pre-emergence application of Sharda Prometryn 44.4% SC.

Table 3. Pre-Emergence

State/Region	Soil Texture	Broadcast Rate/Acre (Pts.)	Broadcast Rate/Acre (Lbs. a.i.)
Mid-South and Southeast, other	Sandy Loam	3.2 - 4	1.6 – 2
than Mississippi River Delta in	Silt and Clay Loam	4.8	2.4
Mississippi	Sharkey Clay (Arkansas Only)	5.6	2.8
	Sandy Loam	4 - 4.8	2 – 2.4
Mississippi River Delta in Mississippi	Silt and Clay Loam	5.6	2.8
	Sharkey Clay	DO NOT USE	DO NOT USE
Blacklands of Oklahoma and Texas,	Loam	2.4	1.2
Texas Gulf Coast, and Texas Coastal	Clay	4.8	2.4
Bend	Loam	3.2	1.6
Rio Grande Valley of Texas*	Clay	4.8	2.4
High Plains, Rolling Plains, and	Sand and Loamy Sand	DO NOT USE	DO NOT USE
Edwards Plateau of Texas,	Sandy Loam	1.6	0.8
Southwest Texas, and New	Loam and Sandy Clay Loam	2.4	1.2
Mexico** and Kansas	Other Clay Soils	3.2	1.6
Arizona and California	DO NOT USE		

<sup>\*</sup>Rio Grande Valley of Texas: Furrow irrigation cotton, if adequate rain does not fall soon after application, a shallow cultivation will ensure good weed control.

# Sharda Prometryn 44.4% SC Foundation Program for Planned Two-Pass Weed Control Systems

In the regions and soil textures listed in **Table 3**, **Sharda Prometryn 44.4% SC** may be applied at a reduced rate of 1 - 2 pts./A (sandy loams = 1 - 1.5 pts./A; loams, silts, sandy clay loams, and clay loams = 1.5 - 2 pts./A; and clay soils = 2 pts./A) to provide reduced

<sup>\*\*</sup>New Mexico: Apply either pre-plant incorporated or pre-emergence (not both)(see Pre-Plant Incorporation section).

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competition from labeled weeds for a period of 30 or more days if followed by a planned post-emergence weed control treatment. Post-emergence treatments may include any product or combination of products labeled to control the specific weeds remaining in the field. A broad-spectrum appropriately labeled glyphosate-based product may be applied to glyphosate-tolerant cotton. Follow all other directions for use, precautions, and restrictions on the **Sharda Prometryn 44.4% SC** label as well as those specified on the post-emergence herbicide product label. In burndown situations, i.e. where weeds are present but the cotton has not yet emerged, **Sharda Prometryn 44.4% SC** may be tank mixed with a burndown herbicide (e.g., solo glyphosate, or paraquat dichloride) in both glyphosate-tolerant and conventional cotton for improved control of existing weeds. It is the pesticide user's responsibility to ensure that all products in the listed mixtures are registered for the intended use. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

#### Winter Weed Control

# Winter and Early Spring Weed Control in Alabama, Arkansas, Louisiana, Missouri, Mississippi, Tennessee, and Virginia

For control of winter and early spring germinating annual weeds (including henbit, common chickweed, sibara, and Palmer amaranth), apply 1.5 - 2 pts. of Sharda Prometryn 44.4% SC after bedding (e.g., stale seedbed) from November 1st until 14 days before planting cotton. Use the 2 pts./A rate for applications made in November or December. Use the 1.5 pts./A rate for applications made from January 1st to 30 days before cotton planting. Applications may be made before or after weeds emerge. For control of emerged weeds, preferably less than 2" in height, add a suitable and approved crop oil concentrate or surfactant according to its label. In the event weeds exceed 2" in height at the time of treatment, apply Sharda Prometryn 44.4% SC in tank mixture with a contact herbicide (e.g., solo glyphosate or Gramoxone SL 2.0). Refer to the label of the contact herbicide for rates of application, additives, and for weed height restrictions at time of application. It is the pesticide user's responsibility to ensure that all products in the listed mixtures are registered for the intended use. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture. After applying Sharda Prometryn 44.4% SC, do not mechanically till the seedbed prior to the cotton planting process, as this will encourage germination of weed seeds. Follow with a pre-emergence herbicide program for cotton. In the event that a subsequent application of Sharda Prometryn 44.4% SC is made, do not exceed the total rate of Sharda Prometryn 44.4% SC that may be applied to a single cotton crop.

#### Winter Weed Control in Texas

For control of winter weeds only, such as henbit (purple top) and seedling dock on fall-bedded cotton land in the Texas Gulf Coast and Blacklands of Texas, apply 1.2 - 1.6 pts. of **Sharda Prometryn 44.4% SC** per acre in the fall or winter to land that will be planted to cotton the following spring. For best results, apply before weeds emerge. **Sharda Prometryn 44.4% SC** will give effective control of emerged henbit, if applied before it reaches 4" - 6" tall. For post-emergence henbit control, add a suitable surfactant, such as X-77°, at 0.5% of spray volume or an emulsifiable oil at 1% of spray volume.

#### Winter Weed Control in California

For control of winter weeds on fall-bedded cotton land, apply **Sharda Prometryn 44.4% SC** after bedding either pre-emergence or post-emergence to weeds less than 2" tall. Winter weeds controlled include:

post emergence to weeds less than 2 tail. Whitel weeds controlled melade.			
Chickweed	London Rocket	Redmaids	
Fiddleneck	Mustards	Shepherd's Purse	
Filaree	Pineappleweed	Sowthistle, Annual	

On sandy loam soil, apply 3.2 pts./A; on medium or fine soil, apply 4.8 pts./A. For post-emergence weed control, add a suitable surfactant, such as X-77, at 0.5% of spray volume or an emulsifiable oil at 1% of spray volume. Rainfall or sprinkler irrigation is necessary to activate the pre-emergence activity of **Sharda Prometryn 44.4% SC**.

After pre-plant-irrigation in the spring, knock off the top ½ - ½ of the seedbed. Then make a pre-plant application of **Sharda Prometryn 44.4% SC** over the surface of the seedbed using a power-tiller, rolling cultivator, or similar implement that will provide uniform incorporation. Refer to **Table 2** for pre-plant incorporation rates of **Sharda Prometryn 44.4% SC** in California. If cultivation is needed, cultivate after cotton emergence and just before the first irrigation.

# **Restrictions:**

- Do not use more than 10.3 pts. per acre (5.15 lbs. a.i./A) of **Sharda Prometryn 44.4% SC** on sandy loam soil or 11.9 pts. per acre (5.95 lbs. a.i./A) of **Sharda Prometryn 44.4% SC** on medium or fine soil per year, including winter weed control, pre-plant incorporation, chemical hoe, and lay-by applications.
- Do not use on sand or loamy sand soil.
- Do not use Sharda Prometryn 44.4% SC for winter weed control in areas of excess salt or calcareous soil.

#### Post-Emergence-Directed

Be especially careful when applying **Sharda Prometryn 44.4% SC** post-emergence to prevent contact of the spray with cotton leaves, or injury may occur. Use precision application equipment so the spray is accurately directed to the base of the cotton plants and still thoroughly covers the soil and weeds beneath the cotton plants. Apply during calm periods to prevent drift. Use leaf lifters or shields if leaf contact cannot be avoided merely by directing the spray. Apply only when all cotton plants have exceeded the minimum specified height shown in **Tables 4** and **5**. Apply to level, well prepared surfaces such as relatively clod-free beds made with bed-shapers.

When applying to emerged weeds, add 2 qts. of surfactant per 100 gals. of spray mixture. Use a surfactant that is compatible with **Sharda Prometryn 44.4% SC** when applied in cotton and is approved by EPA for use on food and feed crops. Examples include X-77, Tronic, and Triton.

#### **Precautions:**

- Application to furrow-planted cotton before furrows are leveled (plowed in) may cause crop injury.
- Application to cotton under stress from drought, cultivator damage, or fertilizer application may cause crop injury.

# **Chemical Hoe (Emerged Weeds only)**

Apply **Sharda Prometryn 44.4% SC** at the appropriate rate in **Table 4**, 2 or 3 times if necessary. In cotton 3" - 6" tall, be extremely careful to avoid spray contact with cotton leaves by applying **Sharda Prometryn 44.4% SC** with a precision applicator equipped with fenders or shields, such as Bell Row Shield, Dickey Fenders, or W&A Fenders. In cotton less than 10" tall, apply only if cotton is bed or flat-planted.

**Table 4. Chemical Hoe** 

State/Region	Height of Cotton (Inches)	Height of Weeds (Inches)	Broadcast Rate/Acre (Pts.)
Arkansas, Louisiana, Missouri, Mississippi, Tennessee, and Texas	3" - 6"	less than 1"	1
All Regions	6" or more	less than 2"	1 - 1.3

# Lay-By (Emerged Weeds and Germinating Weeds)

Apply **Sharda Prometryn 44.4% SC** at the appropriate rate in **Table 5**, once per year when cotton is at least 12" tall (18" where flood nozzles are used in Arizona and California). Apply before weeds are 2" tall.

Table 5. Lay-By (Cotton at least 12" tall)

State/Region	Soil Texture	Broadcast Rate/Acre (Pts.)	Broadcast Rate/Acre (Lbs. a.i.)
	Sandy	2.4	1.2
Mid-South and Southeast	Loam	2.8	1.4
	Clay	3.2	1.6
Blacklands of Oklahoma and Texas	Loam	1.6	0.8
Blacklands of Oklahoma and Texas	Clay	3.2	1.6
High Dlains of New Mayisa and Tayas	Sandy	1.6	0.8
High Plains of New Mexico and Texas	Loam and Clay	2.4	1.2
Southwest Toyos	Loam	2.4	1.2
Southwest Texas	Clay	3.2	1.6
Rio Grande Valley of Texas	DO NOT USE		
•	Sand and Loamy Sand DO NOT USE		OT USE
Arizona and California*	Sandy Loam	2.4 - 3.2	1.2 – 1.6
	Loam	3.2	1.6
*Do not use in the Coachella Valley.	·		

# Sharda Prometryn 44.4% SC Combinations for pendimethalin products (ex. Cotton Prowl® 3.3 EC, EPA Reg. No. 241-337) (Arizona, California, New Mexico, and the Upper and Lower El Paso Valley of Texas)

This pre-plant incorporated tank mixture controls all weeds listed on this label and on the Prowl cotton label. Apply prior to listing or over partially finished or finished beds and incorporate immediately. Refer to the pendimethalin label for specific mixing, spraying, and incorporation methods. Continuous agitation in the spray tank is required to keep the material in suspension. It is the pesticide user's responsibility to ensure that all products in the listed mixtures are registered for the intended use. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture. Apply the tank mixture at the appropriate rates from **Table 6**.

Use the higher specified rate for each soil texture below, if heavy weed populations are anticipated.

Table 6. Pre-Plant Incorporated Tank Mixture with 37.4% Pendimethalin

Soil Texture	Broadcast Rate/Acre (Pts.)		
3011 Texture	37.4% Pendimethalin	Sharda Prometryn 44.4% SC	
Sand and Loamy Sand	DO NOT USE		
Sandy Loam	See Product Label.	2.4 - 3.2	
Loam	See Product Label.	3.2	
Silt Loam, Silt, and Sandy Clay Loam	See Product Label.	3.2 - 4.8	
Clay Loam, Silty Clay Loam, and Clay	See Product Label.	3.2 - 4.8	

# **Precautions:**

Crop injury may occur if:

- Application is made in cut areas of newly leveled fields, in areas of excess salt, or in areas where flooding over the bed is likely to
  occur.
- Cotton is planted in tractor wheel depressions.
- Cotton is irrigated prior to emergence.
- Cotton is irrigated before cotton seedlings are well-established on mulch-planted cotton.

# **Restriction:**

Do not feed treated forage to livestock or graze treated areas.

**Rotational Crops:** If crop treated with **Sharda Prometryn 44.4% SC** and 37.4% Pendimethalin is lost, only cotton may be replanted. Do not rework the soil. Refer to the 37.4% Pendimethalin label and the **ROTATIONAL CROP RESTRICTIONS** section of this label for rotational crop restrictions.

# Trifluralin Tank Mixture (Arizona, California, New Mexico, and the Upper and Lower El Paso Valley of Texas)

This combination controls weeds listed on this label and on the trifluralin labels. This combination also controls shallow-germinating seedlings of cocklebur and coffeeweed. Follow procedures on the trifluralin label for soil preparation and incorporation. Apply the tank mix combination to the flat soil before disking. Pour **Sharda Prometryn 44.4% SC** directly into spray tank ½ - ¾ full of water, allow it to disperse with agitation, add trifluralin formulation, and then add the rest of the water. Under conditions of very soft water and low spray volume (5 - 10 gals./A), compatibility of **Sharda Prometryn 44.4% SC** + trifluralin may be improved by adding the trifluralin first, agitate, and then add the **Sharda Prometryn 44.4% SC**. Continuous agitation in the spray tank is required to keep the material in suspension. Apply the tank mixture at the appropriate rates from **Table 7**. It is the pesticide user's responsibility to ensure that all products in the listed mixtures are registered for the intended use. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

Table 7. Tank Mixture with Trifluralin

Soil Texture	Broadcast Rate/Acre (Pts.)		
3011 Texture	Trifluralin	Sharda Prometryn 44.4% SC	
Sand, Loamy Sand	DO NOT USE		
Sandy Loam	See Product Label.	2.4 - 3.2*	
Medium Soils	See Product Label.	4	
Fine Soils	See Product Label.	4	
Muck Or Peat	DO NOT USE		
*Use less than 3.2 pts./A only in Arizona and California.			

#### **Precautions:**

Crop injury may occur if:

- Application is made in cut areas of newly leveled fields, in areas of excess salt, or in areas where flooding over the bed is likely to
  occur.
- Cotton in tractor wheel depressions.
- Cotton is irrigated before cotton seedlings are well-established on mulch-planted cotton.

#### Restriction:

• Do not feed treated forage to livestock or graze treated areas.

Rotational Crops: Refer to the trifluralin label and the ROTATIONAL CROP RESTRICTIONS section of this label for rotational crop restrictions.

# Trifluralin Split Application (Arizona and California)

Apply a pre-plant-incorporated application of trifluralin as directed on that label, except use the appropriate rate from **Table 7**. Do not apply trifluralin before January 1<sup>st</sup>. Follow at planting or just before planting with a pre-plant-incorporated treatment of **Sharda Prometryn 44.4% SC** as directed in the **COTTON** section of this label, except use the appropriate rate from **Table 7**.

### Monosodium Methanearsonate (MSMA)

For faster knockdown of emerged weeds controlled by **Sharda Prometryn 44.4% SC** alone, apply 1 - 1.3 pts. of **Sharda Prometryn 44.4% SC** plus 2 lbs. active ingredient of Monosodium Methanearsonate (MSMA) per acre, following the same directions, precautions, and limitations as given on this label for **Sharda Prometryn 44.4% SC** applied alone post-emergence-directed (chemical hoe). Do not apply after first bloom. Several formulations of Monosodium Methanearsonate (MSMA) are available under various trade names for several manufacturers. Observe the directions, limitations, restrictions, and precautions on the label of the product used.

# **Cotton with Glyphosate Tolerance**

# Post-Emergence-Directed Applications to Cotton 6" Tall Up to Lay-By (Not for use in Arizona and California.)

To control weeds listed on this label, apply **Sharda Prometryn 44.4% SC** at 1 - 1.3 pts./A tank mixed with the labeled rate of solo glyphosate or another appropriately labeled formulation of glyphosate to glyphosate-tolerant cotton once the cotton is 6" tall or taller and weeds to be controlled by **Sharda Prometryn 44.4% SC** are less than 2" tall. Make applications with a shielded or hooded sprayer to avoid contact of the spray to cotton leaves. Spray which contacts cotton leaves may cause injury. Apply during calm periods to prevent drift. It is the pesticide user's responsibility to ensure that all products in the listed mixtures are registered for the intended use. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

#### **Restrictions:**

- Do not apply to cotton planted in furrows.
- Do not use on sand or loamy sand soils in Arizona, California, or in Gaines County, Texas.
- Do not use in the Coachella Valley of California.

#### Post-Emergence-Directed Applications to Cotton at Lay-By (12" or Taller)

To control weeds listed on this label, apply **Sharda Prometryn 44.4% SC** tank mixed with an appropriately labeled formulation of glyphosate at the appropriate rate as shown in **Table 5. Lay-By**, to glyphosate tolerant cotton once the cotton is 12" tall or taller and weeds to be controlled by **Sharda Prometryn 44.4% SC** are less than 2" tall. Applications must be made with a shielded or hooded sprayer to avoid contact of the spray to cotton leaves. Spray which contacts cotton leaves may cause injury. Apply during calm periods to prevent drift. It is the pesticide user's responsibility to ensure that all products in the listed mixtures are registered for the intended use. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

# **Restriction:**

• Do not use on sand or loamy sand soils in Gaines County, Texas.

#### **OKRA**

Apply **Sharda Prometryn 44.4% SC** pre-emergence and/or post-directed to okra.

# **Pre-Emergence and Post-Directed**

Make a single pre-emergence broadcast application of **Sharda Prometryn 44.4% SC** after planting before crop emergence at the rate of 3 pts./A. For 2 applications, make the first pre-emergence after planting, before crop emergence at the rate of 1.5 pts./A and the second post-directed when okra plants are at 7 - 9 leaf stage at the rate of 1.5 pts./A. Apply post-directed before weeds are 2" tall. Make uniform applications of the herbicide in 20 - 40 gals. of water per acre.

#### **Restrictions:**

- Do not apply within 14 days of harvest.
- Do not exceed 3 pts. per acre (1.5 lbs. a.i./A) of Sharda Prometryn 44.4% SC per year.
- Do not exceed 1 pre-emergence and 1 post-directed application per year.
- If one application is made: Do not exceed 3 pts. per acre (1.5 lbs. a.i./A) per application
- If two applications are made: Do not exceed 1.5 pts. per acre (0.75 lbs. a.i./A)

#### **PARSLEY**

In California Only: Make a single pre-emergence broadcast application of Sharda Prometryn 44.4% SC after planting before crop emergence at the rate of 1 - 4 pts./A. If a rate higher than 1 pt./A is applied, then only 1 application is allowed.

In All States (including California): Make a single pre-emergence broadcast application of Sharda Prometryn 44.4% SC up to 14 days after planting at the rate of 1 pt./A. For extended weed control, a second application can be made at 1 pt./A up to 30 days prior to harvest. A third application at 1 pt./A can be made to the regrowth up to 30 days prior to the second (cutting) harvest. Use the lower rates on coarse-textured soils and soils low in organic matter; use the higher specified rates on fine-textured soils and soils high in organic matter. Make a uniform application of the herbicide in 20 gals. of water per acre.

#### Precaution:

• If parsley is under water stress, application of this product may cause crop injury.

#### **Restrictions:**

- Do not apply to the crop within 30 days of harvest.
- Do not make more than 3 applications per year at a maximum of 1 pts. per acre per application, except in California only where a single application up to 4 pts. per acre is allowed.
- Do not exceed 3 pts. per acre (1.5 lbs. a.i./A) of Sharda Prometryn 44.4% SC per year.
- Do not use on sand or loamy sand.

# **PIGEON PEAS (PUERTO RICO ONLY)**

For pre-emergence control of annual weeds, such as horse purslane, junglerice, wild spider flower, jimsonweed, spurge, pigweed, and Florida pusley, apply 4 pts. of **Sharda Prometryn 44.4% SC** per acre on loam soils, or 6 pts./A on clay soils. Apply at planting or immediately after planting before the crop or weeds emerge.

# **Restrictions:**

- Make only 1 application per year.
- Do not exceed 6 pts. per acre (3 lbs. a.i./A) of Sharda Prometryn 44.4% SC per year.
- Do not use on sand or loamy sand soils.
- Do not graze or feed forage or hay to livestock.

#### **RHUBARB**

Make a single broadcast application at the appropriate rate to established rhubarb when plants are dormant, before leaves have emerged from the crown. Apply 2 - 3.2 pts./A on coarse-textured soils and 3.2 - 4 pts./A on fine-textured soils. Apply in a minimum of 20 gals. of water per acre. Within the rate ranges given, use the lower rate on relatively coarse-textured soils and soils low in organic matter; use the higher specified rate on relatively fine-textured soils and soils high in organic matter.

# **Restrictions:**

- Do not apply to rhubarb within 40 days of harvest.
- Do not make more than 1 application per year.
- Do not exceed 4 pts. per acre of Sharda Prometryn 44.4% SC per year.

# **SESAME**

Make a single post-banded application directed to the soil and lower 3" of sesame plants a minimum of 12" tall. Apply 2 pts. per acre by ground using an application volume of 15 - 40 gals. of water per acre. When applying to emerged weeds add 2 qts. of a nonionic surfactant (NIS) to 100 gals. of spray mixture (0.5% v/v) or 1 gal. of a non-phytotoxic crop oil concentrate (COC) to 100 gals. of spray mixture (1% v/v).

#### **Restrictions:**

- Do not apply within 75 days of sesame harvest.
- Make only 1 application per year
- Do not exceed 2 pts. per acre of Sharda Prometryn 44.4% SC per year.

# STORAGE AND DISPOSAL

Do not contaminate water, foodstuffs, feed, or seed by storage or disposal.

**PESTICIDE STORAGE:** Store in a dry place.

**PESTICIDE DISPOSAL:** Pesticide wastes are toxic. Improper disposal of unused pesticide, spray mixture, or rinse water is a violation of Federal law. If these wastes cannot be used 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 in proper disposal methods.

#### **CONTAINER HANDLING:**

[Less Than or Equal to 5 Gallons] [Nonrefillable container. Do not reuse or refill this container. Offer for recycling if available. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and 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 a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available or reconditioning if appropriate or puncture and dispose of in a sanitary landfill or by incineration.]

[Greater Than 5 Gallons] [Nonrefillable container. Do not reuse or refill this container. Offer for recycling, if available. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Dispose of empty container in a sanitary landfill or by incineration.]

[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% 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.

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