OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION

WASHINGTON, D.C. 20460

October 17, 2024

SENT BY EMAIL

Freddy Shelley
freddy.shelley@syntechresearch.com
SHARDA USA LLC

Subject: Labeling Notification per Pesticide Registration Notice (PRN) 98-10 - Revise label with legume pests
Product Name: Sharda Gamma-Cyhalothrin 14.4% CS
Admin Number: 83529-329
EPA Receipt Date: 10/09/2024
Action Case Number: 00632684

Dear Freddy Shelley:

The U.S. Environmental Protection Agency is in receipt of your application for notification under Pesticide Registration Notice 98-10 for the above referenced product. The EPA 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 labeling submitted with this application has been stamped "Notification" and will be placed in our records.

Should you wish to add/retain a reference to your 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 EPA. If the website is false or misleading, the product will be considered to be misbranded and sale or distribution of the product is unlawful under FIFRA section 12(a)(1)(E). 40 CFR § 156.10(a)(5) lists examples of statements the 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 EPA find or if it is brought to our attention that a website contains statements or claims substantially differing from statements or claims made in connection with obtaining a FIFRA section 3 registration, the website will be referred to the EPA's Office of Enforcement and Compliance Assurance.

If you have questions, please contact Elizabeth Andrews via email at andrews.elizabeth@epa.gov.

Sincerely,

Elizabeth Andrews "for"

Jacquelyn Herrick, Product Manager 3
IVB1, RD
Office of Pesticide Programs

RESTRICTED USE PESTICIDE
DUE TO TOXICITY TO FISH AND AQUATIC ORGANISMS
For retail sale to and use only by Certified Applicators, or persons under their direct supervision, and only for those uses covered by the Certified Applicator's certification.

[MASTER LABEL]

GAMMA-CYHALOTHRIN	GROUP 3A	INSECTICIDE

Sharda Gamma-Cyhalothrin 14.40% CS

ABN: Announce

For control of insect pests in alfalfa, canola, Cole crops, corn, sweet corn, cotton, cucurbits, fruiting vegetables, grass forage, fodder and hay, legume vegetables, lettuce (head & leaf), onion, peanut, pome fruits, rice and wild rice, seed vegetables, small grains, sorghum (grain), soybean, stone fruits, sugarcane, sunflower, tobacco, tree nuts including pecans, tuberous & corm vegetables (potato, sweet potato, yams & related), conifer and deciduous trees (plantations, nurseries and seed orchards) and non-cropland areas adjacent to crops.

	WT. BY %
ACTIVE INGREDIENT:	
Gamma-cyhalothrin: Cyclopropanecarboxylic acid, 3-(2-chloro-3,3,3-trifluoro-1-propenyl)- 2,2-dimethyl, cyano(3-phenoxyphenyl)methyl ester*	14.4%
OTHER INGREDIENTS:	85.6%
TOTAL:	**100.00**%

*****Contains 1.25 lbs. of active ingredient per gallon. Contains petroleum distillate.

KEEP OUT OF REACH OF CHILDREN

CAUTION/PRECAUCIÓN

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:	• Immediately call a poison control center or doctor. • **DO NOT** induce vomiting unless told to do so by a poison control center or doctor. • **DO NOT** give any liquid to the person. • **DO NOT** give anything by mouth to an unconscious person.
IF INHALED:	• Move person to fresh air. • If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. • Call a poison control center or doctor for further treatment advice.
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 eye. • Call a poison control center or doctor for treatment advice.
HOTLINE NUMBER	
Have the product container or label with you when calling a poison control center or doctor or going for treatment. For emergency information concerning this product, call your poison control center at **1-800-222-1222**.	
NOTE TO PHYSICIAN	
Induced vomiting as first aid for this substance may result in increased risk of chemical pneumonia or pulmonary edema caused by aspiration of the hydrocarbon solvent. Vomiting should be induced only under professional supervision. Skin exposure may also result in a sensation described as a tingling, itching, burning, or prickly feeling. Onset may occur immediately to 4 hours after exposure and may last 2 to 30 hours, without damage. Wash exposed areas once with soap and water. Relief from the skin sensation may be obtained by applying an oil-based cream.	

[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].]

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

NOTIFICATION
83529-329
The applicant has certified that no changes, other than those reported to the Agency have been made to the labeling. The Agency acknowledges this notification by letter dated:
10/17/2024

EPA Reg No. 83529-XXX
EPA Est. No. XXXXX-XX-XXX

Net Contents: _____ Gals. [L.]

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION / PRECAUCIÓN

Causes moderate eye irritation. Harmful if swallowed, inhaled, or absorbed through skin. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Avoid contact with eyes, skin, or clothing. Avoid breathing spray mist. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove contaminated clothing and wash clothing before reuse.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves, such as barrier laminate, butyl rubber ≥14 mils, nitrile rubber ≥14 mils, neoprene rubber ≥14 mils, natural rubber ≥14 mils, polyethylene, polyvinyl chloride (PVC) ≥14 mils or Viton ≥ 14 mils
- Shoes plus socks
- Protective eyewear

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

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 must:

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

ENVIRONMENTAL HAZARDS

This pesticide is extremely toxic to fish and aquatic organisms and toxic to wildlife. **DO NOT** apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean highwater mark. **DO NOT** apply when weather conditions favor drift from treated areas. Drift and runoff from treated areas may be hazardous to aquatic organisms in neighboring areas. **DO NOT** contaminate water when disposing of equipment wash waters.

NON-TARGET ORGANISM ADVISORY STATEMENT: This product is highly toxic to bees exposed to direct treatment or residues on blooming crops or weeds. **DO NOT** apply this product or allow it to drift to blooming crops or weeds if bees are visiting the treatment area. **Protect pollinating insects by following label directions intended to minimize drift and to reduce risk to these organisms.**

PROTECTION OF POLLINATORS

APPLICATION RESTRICTIONS EXIST FOR THIS PRODUCT BECAUSE OF RISK TO BEES AND OTHER INSECT POLLINATORS. FOLLOW APPLICATION RESTRICTIONS FOUND IN THE DIRECTIONS FOR USE TO PROTECT POLLINATORS.

Look for the bee hazard icon in the **DIRECTIONS FOR USE** for each application site for specific use restrictions and instructions to protect bees and other insect pollinators.

This product can kill bees and other insect pollinators. Bees and other insect pollinators will forage on plants when they flower, shed pollen, or produce nectar. Bees and other insect pollinators can be exposed to this pesticide from:

- Direct contact during foliar applications or contact with residues on plant surfaces after foliar applications.
- Ingestion of residues in nectar and pollen when the pesticide is applied as a seed treatment, soil, tree injection, as well as foliar applications.

When Using This Product Take Steps To:

- Minimize exposure of this product to bees and other insect pollinators when they are foraging on pollinator attractive plants around the application site.
- Minimize drift of this product on to beehives or to off-site pollinator attractive habitat. Drift of this product onto

beehives or off-site to pollinator attractive habitat can result in bee kills.

Information on protecting bees and other insect pollinators may be found at the Pesticide Environmental Stewardship website at: http://pesticidestewardship.org/PollinatorProtection/Pages/default.aspx

Pesticide incidents (for example, bee kills) should immediately be reported to the state/tribal lead agency. For contact information for your state, go to: www.aapco.org/officials.html. Pesticide incidents should also be reported to the National Pesticide Information Center at: www.npic.orst.edu or direct to EPA at: beekill@epa.gov.

PHYSICAL AND CHEMICAL HAZARDS

DO NOT use or store near heat or open flame.

DIRECTIONS FOR USE

RESTRICTED USE PESTICIDE

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

For outdoor use only. **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.

SHAKE WELL BEFORE USING. READ ENTIRE LABEL. USE STRICTLY IN ACCORDANCE WITH PRECAUTIONARY STATEMENTS AND DIRECTIONS, AND WITH APPLICABLE STATE AND FEDERAL REGULATIONS.

For crops under contracted pollination services:

- **DO NOT** apply this product while bees are foraging.
- **DO NOT** apply this product until flowering is complete and all petals have fallen unless the following condition has been met.
- If an application must be made when managed bees are at the treatment site, the beekeeper providing the pollination services must be notified no less than 48-hours prior to the time of the planned application so that the bees can be removed, covered, or otherwise protected for 38 hours following application.

For food crops and commercially grown ornamentals not under contract for pollination services but are attractive to pollinators:

- **DO NOT** apply this product while bees are foraging.
- This product is toxic to bees exposed to residue for more than 38 hours following treatment.
- **DO NOT** apply this product to blooming, pollen-shedding or nectar-producing parts of plants if bees may forage on the plants during this time period, unless the application is made in response to a public health emergency declared by the appropriate State or Federal authorities.

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 (REI). 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.

PPE required for early entry into 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, such as barrier laminate or Viton ≥ 14 mils
- Shoes plus socks
- Protective eyewear

Mixers, loaders, and applicators must wear long-sleeved shirt, long pants, shoes and socks, coveralls, gloves, and respirator.
For respiratory protection from organic vapor and particulates (or aerosols):

- Wear a minimum of a NIOSH-approved elastomeric half mask respirator with organic vapor (OV) cartridges and combination R, or P filters; OR a NIOSH-approved gas mask with OV canisters; OR a NIOSH-approved powered air purifying respirator with OV cartridges and combination HE filters.

PRODUCT INFORMATION

Sharda Gamma-Cyhalothrin 14.40% CS is a microencapsulated synthetic pyrethroid insecticide that controls insects by contact and ingestion. **Sharda Gamma-Cyhalothrin 14.40% CS** is intended for control of insect pests in alfalfa, canola, Cole crops, corn, cotton, fruiting vegetables, legume vegetables, lettuce, onion, peanut, pome fruits, rice, grain sorghum, soybean, stone fruits, sugarcane, sunflower, tobacco, tree nuts including pecans, wheat, triticale, conifer and deciduous trees (plantations, nurseries and seed orchards) and non-cropland areas adjacent to crops.

USE PRECAUTIONS AND RESTRICTIONS

- Initial and residual insect control is contingent upon thorough crop coverage. Apply with ground or air equipment, using sufficient water to obtain full coverage of foliage. Apply in a minimum of 2 gallons per acre by air or 10 gallons per acre by ground unless otherwise specified in this label. When foliage is dense or pest pressure is high (heavier insect or egg pressure, larger larval stages), use of higher application volumes and/or higher label use rates may improve initial and residual control.
- For cutworm control, **Sharda Gamma-Cyhalothrin 14.40% CS** may be applied before, during, or after planting. For soil incorporated applications, use higher rates in rate range for improved control.
- For soil or foliar applications, DO NOT apply by ground within 25 feet of lakes, reservoirs, rivers, permanent streams, marshes or natural ponds, estuaries, and commercial fish farm ponds.

Nursery (Ornamentals, Vegetables, Trees, Container Stock)
DO NOT apply as foliar broadcast application using a mechanically pressurized handgun to nurseries.
DO NOT apply as drench/soil/ground-direct application methods using a mechanically pressurized handgun to nurseries.

Removable chemical extraction probes (also known as "stingers") used in suction/extraction systems must be rinsed within the pesticide container prior to removal.

INSECTICIDE RESISTANCE MANAGEMENT

For resistance management, **Sharda Gamma-Cyhalothrin 14.40% CS** contains a Group 3a insecticide. Any insect/mite population may contain individuals naturally resistant to **Sharda Gamma-Cyhalothrin 14.40% CS** and other Group 3a insecticides. The resistant individuals may dominate the insect/mite population if this group of insecticides/acaricides are used repeatedly in the same fields. Appropriate resistance-management strategies should be followed.

To delay insecticide/acaricide resistance, take the following steps:

Rotate the use of **Sharda Gamma-Cyhalothrin 14.40% CS** or other Group 3a insecticides/acaricides within a growing season, or among growing seasons, with different groups that control the same pests.

- Use tank mixtures with insecticides/acaricides from a different group that are equally effective on the target pest when such use is permitted. **DO NOT** rely on the same mixture repeatedly for the same pest population. Consider any known cross-resistance issues (for the targeted pests) between the individual components of a mixture. In addition, consider the following recommendations provided by the Insecticide Resistance Action Committee (IRAC):
    - Individual insecticides selected for use in mixtures should be highly effective and be applied at the rates at which they are individually registered for use against the target species.
    - Mixtures with components having the same IRAC mode of action classification are not recommended for insect resistance management.
    - When using mixtures, consider any known cross-resistance issues between the individual components for the targeted pest(s).
    - Mixtures become less effective if resistance is already developing to one or both active ingredients, but they may still provide pest management benefits.
    - The insect resistance management benefits of an insecticide mixture are greatest if the two components have similar periods of residual insecticidal activity. Mixtures of insecticides with unequal periods of residual insecticide activity may offer an insect resistance management benefit only for the period where both insecticides are active.
- Adopt an integrated pest management program for insecticide/acaricides use that includes scouting, uses historical information related to pesticide use, crop rotation, record keeping, and which considers cultural, biological and other chemical control practices.
- Monitor after application for unexpected target pest survival. If the level of survival suggests the presence of resistance, consult with your local university specialist or certified pest control advisor.
- Contact your local extension specialist or certified crop advisors for any additional pesticide resistance-management and/or IPM recommendations for the specific site and pest problems in your area.

- For further information or to report suspected resistance contact Sharda USA LLC. You can also contact your pesticide distributor or university extension specialist to report resistance.

BUFFER ZONES

Vegetative Filter Strips (not intended for use on rice)
Construct and maintain a vegetative filter strip, according to the width specified below, of grass or other permanent vegetation between the field edge and nearby down gradient aquatic habitat (such as, but not limited to, lakes; reservoirs; rivers; streams; marshes or natural ponds; estuaries; and commercial fish farm ponds).

Only apply products containing gamma-cyhalothrin onto fields where a maintained vegetative filter strip of at least 25 feet exists between the field edge and where a down gradient aquatic habitat exists. This minimum required width of 25 feet may be reduced or removed under the following conditions:

- For Western irrigated agriculture, a maintained vegetative filter strip of at least 10 feet wide is required. Western irrigated agriculture is defined as irrigated farmland in the following states: WA, OR, CA, ID, NV, UT, AZ, MT, WY, CO, NM, and TX (west of I-35).
    - For Western irrigated agriculture, if a sediment control basin is present, a vegetative filter strip is not required.
- In all other areas, a vegetative filter strip with a minimum width of 25 feet is required, unless the following conditions are met. The vegetative filter strip requirement may be reduced from 25 feet to 15 feet if at least one of the following applies:
    - The area of application is considered prime farmland (as defined in 7 CFR § 657.5).
    - Conservation tillage is being implemented on the area of application.
    - Conservation tillage is defined as any system that leaves at least 30% of the soil surface covered by residue after planting. Conservation tillage practices can include mulch-till, no-till, or strip-till.
    - A functional terrace system is maintained on the area of application.
    - Water and sediment control basins for the area of application are functional and maintained.
    - The area of application is less than or equal to 10 acres.

For further guidance on vegetated filter strips, refer to the following publication for information on constructing and maintaining effective buffers: Conservation Buffers to Reduce Pesticide Losses. Natural Resources Conservation Services. https://www.regulations.gov/document?D=EPA-HQ-OPP-2008-0331-0175"

Buffer Zone for Ground Application (ground boom, overhead chemigation, or airblast)
DO NOT apply within 25 feet of aquatic habitats (such as, but not limited to, lakes, reservoirs, rivers, streams, marshes, ponds, estuaries, and commercial fishponds).

Buffer Zone for Ultra Low Volume (ULV) Aerial Application
DO NOT apply within 450 feet of aquatic habitats (such as, but not limited to, lakes, reservoirs, rivers, streams, marshes, ponds, estuaries, and commercial fishponds). Applications made by mosquito control districts and other public health officials are exempt from this requirement.

Buffer Zone for Non-ULV Aerial Application
DO NOT apply within 150 feet of aquatic habitats (such as, but not limited to, lakes, reservoirs, rivers, streams, marshes, ponds, estuaries, and commercial fishponds).

In the State of New York, a 25 ft. vegetated, non-cropped buffer strip untraversed by drainage tiles must be maintained between a treated field and a coastal salt marsh or stream that drains into a coastal salt marsh, for both aerial or ground application. For aerial applications, the 25 ft. vegetated non-cropped buffer strip for runoff protection would be part of the larger 150 ft. buffer strip (or 450 ft. buffer strip for ULV application) required for spray drift.

For soil or foliar applications, **DO NOT** apply by ground within 25 feet of lakes, reservoirs, rivers, permanent streams, marshes or natural ponds, estuaries, and commercial fish farm ponds.

DO NOT apply the product into fish pools, ponds, streams, or lakes. **DO NOT** apply directly to sewers or storm drains, or to any area like a drain or gutter where drainage to sewers, storm drains, water bodies, or aquatic habitat can occur.

DO NOT allow the product to enter any drain during or after application.

DO NOT apply or irrigate to the point of runoff.

DO NOT make applications during rain. Avoid making applications when rainfall is expected before the product has sufficient time to dry (minimum 4 hours).

Rainfall within 24 hours after application may cause unintended runoff of pesticide application.

DO NOT apply when the wind speed is greater than 10 mph.

TANK MIXTURES

When tank mixing with any other agricultural products, always add **Sharda Gamma-Cyhalothrin 14.40% CS** last. Fill the tank with one half to two-thirds volume of the mixing diluent. Make sure all other products are fully dispersed in the mixing diluent before adding the recommended rate of **Sharda Gamma-Cyhalothrin 14.40% CS** to the tank. Add the remainder of the mixing diluent volume. For best results, it is recommended that mixing and spray equipment have continuous agitation. Follow the precautions and limitations of the most restricted product in the tank mixture. While **Sharda Gamma-Cyhalothrin 14.40% CS** has good flexibility for tank mixing with other agricultural products, a jar test for physical compatibility is recommended for untried mixtures using proper ratios and mixing sequences of all ingredients to be included in the mixture.

Sharda Gamma-Cyhalothrin 14.40% CS is an aqueous-based formulation. It is recommended that no type of non-emulsifiable oils be used in combination with **Sharda Gamma-Cyhalothrin 14.40% CS.** If adjuvants are used, use only: nonionic surfactant (NIS) containing at least 75% surface agent or non-phytotoxic crop oil concentrate (COC), including once-refined vegetable oil concentrate (VOC), or methylated sunflower oils (MSO) containing a minimum of 17% emulsifier.

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

- Contains only EPA exempt ingredients.
- Is non-phytotoxic to the target crop.
- Is compatible in mixture. (Must be established through a jar test.)
- Is supported locally for use with **Sharda Gamma-Cyhalothrin 14.40% CS** on the target crop through proven field trials and through university and extension recommendations.

In addition, the following may be used as diluents:

- Crop oil concentrate
- Methylated sunflower oils
- Urea-ammonium nitrate

It is recommended that the following **NOT** be used in combination with **Sharda Gamma-Cyhalothrin 14.40% CS** as diluents or adjuvants:

- Non-emulsifiable oils
- Diesel fuel
- Straight mineral oil
- Fertilizer products containing the micronutrient boron.

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.

Chemigation

Apply **Sharda Gamma-Cyhalothrin 14.40% CS** at rates and timing described elsewhere in this label. As local recommendations differ, consult your local State Extension Service or other local experts for recommendations on adjuvant or diluent types (see Tank Mix Application), rates, and mixing instructions. These recommendations should be proven, through university and extension field trials, to be effective with **Sharda Gamma-Cyhalothrin 14.40% CS** applied by chemigation.

Sprinkler Irrigation Application

Check the irrigation system to ensure uniform application of water to all areas. Thorough coverage of foliage is required for good control. Good agitation in the pesticide supply tank should be maintained prior to and during the entire application period.

Apply by injecting the recommended rate of **Sharda Gamma-Cyhalothrin 14.40% CS** into the irrigation system using a metering device that will introduce a constant flow and by distributing the product to the target area in 0.1 to 0.2 acre-inch of water. In general, use the least amount of water required for proper distribution and coverage. It is recommended that the product be injected into the center of the main irrigation line ahead of at least one right angle turn in the line to ensure adequate dispersion or mixing in the irrigation water. Once the application is completed, flush the entire irrigation and injection system with clean water before stopping the system. In addition to the above recommendations, if application is being made during a normal irrigation set of a stationary sprinkler, the recommended rate of **Sharda Gamma-Cyhalothrin 14.40% CS** for the area covered should be injected into the system only during the end of the irrigation set for sufficient time to provide adequate coverage and product distribution.

DO NOT apply **Sharda Gamma-Cyhalothrin 14.40% CS** through an irrigation system connected to a public water system. Public water system means a system for the provision to the public of piped water for human consumption if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days out of the year.

Use Restrictions—Sprinkler Irrigation Application

1. **DO NOT** apply this product through any other type of irrigation system.
2. **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.
3. **DO NOT** apply when wind speed favors drift beyond the area intended for treatment or non-uniform distribution of treated water.

4. **DO NOT** apply through chemigation systems connected to public water systems.

Use Precautions—Sprinkler Irrigation Application

1. Apply this product only through sprinkler irrigation systems including center pivot, lateral move, end tow, side (wheel) roll, traveler, big gun, solid set, or hand move.
2. Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from non-uniform distribution of treated water.
3. If you have any questions about calibration, you should contact State Extension Service specialists, equipment manufacturers, or other experts.
4. A person knowledgeable of the chemigation system and responsible for its operation, or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.
5. 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.
6. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back through the injection pump.
7. The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve or interlock 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.
8. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
9. The irrigation line or water pump must include a functional pressure switch or interlock that will stop the water pump motor or injector when the water pressure decreases to the point where pesticide distribution is adversely affected.
10. Systems must use a chemical injector or 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.
11. Any alternatives to the above-required safety devices must conform to the list of EPA- or state agency-approved alternative devices.

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 select nozzle and pressure that deliver medium or coarser droplets (ASABE S641).
- **DO NOT** apply when wind speeds exceed 10 mph at the application site. The boom length must be 75% or less of the wingspan for fixed-wing aircraft and 90% or less of the rotor diameter for helicopters.
- Applicators must use ½ swath displacement upwind at the downwind edge of the field.
- **DO NOT** apply during temperature inversions.

Airblast Applications:

- Sprays must be directed into the canopy.
- **DO NOT** apply when wind speeds exceed 10 mph at the application site.
- User must turn off outward pointing nozzles at row ends and when spraying outer row.
- **DO NOT** apply during temperature inversions.

Ground Boom Applications:

- User must only apply with the release height recommended by the manufacturer, but no more than 4 feet above the ground or crop canopy.
- Applicators are required to select nozzle and pressure that deliver medium or coarser droplets (ASABE S572).
- **DO NOT** apply when wind speeds exceed 10 mph at the application site.
- **DO NOT** apply during temperature inversions.

For Outdoor Applications to Commercial Nurseries:

- **DO NOT** apply when the wind speed is greater than 10 mph.
- Applicators are required to select the nozzle and pressure that delivers a medium or coarser droplet size (ASABE S572).
- For soil or foliar applications, **DO NOT** apply by ground equipment within 25 feet of lakes, reservoirs, rivers, permanent streams, marshes or natural ponds, estuaries, and commercial fish farm ponds.

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 advised 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 manufacturer's instructions 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 the 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.

Air-Assisted (Airblast) Field Crop Sprayers

It is the responsibility of the applicator to determine that a sprayer is suitable for the intended application, is configured properly, and that drift is not occurring. **Note:** Air assisted field sprayers can affect product performance by affecting spray coverage and canopy penetration. Consult the application equipment manufacturer and/or State Extension Service.

Air-Assisted (Airblast) Orchard/Tree Nursery

In addition to the general drift management principles already described, the following specific practices will further reduce the potential for drift:

- Adjust deflectors and aiming devices so that spray is only directed into the canopy.
- Spray must be shut off during row turns.
- Block off upward pointed nozzles when there is no over-hanging canopy.
- Use only enough air volume to penetrate the canopy and provide good coverage.
- **DO NOT** allow spray to go beyond the edge of the cultivated area. Spray the outside downwind row(s) only from outside the planting.

POLLINATOR BEST MANAGMEMENT PRACTICES (BMPS)

Following best management practices can help reduce risk to terrestrial pollinators. Examples of best management practices include applying pesticides in the evening and at night when pollinators are not foraging and checking to confirm hive locations before spraying. For additional resources on pollinator best management practices, visit https://www.epa.gov/pollinator-protection/find-best-management-practices-protect-pollinators.

Managed pollinator protection plans are developed by states/tribes to promote communication between growers, landowners, farmers, beekeepers, pesticide users, and other pest management professionals to reduce exposure of bees to pesticides. If available, visit state plans for additional information on how to protect pollinators.

How to Report Bee Kills

It is advised that users contact both the state lead agency and the U.S. Environmental Protection Agency to report bee kills due to pesticide application. Bee kills can be reported to EPA at beekill@epa.gov. To contact your state lead agency, see the current listing

of state pesticide regulatory agencies at the National Pesticide Information Center's website: http://npic.orst.edu/reg/state_agencies.html.

CROP-SPECIFIC USE INSTRUCTIONS

Rate Conversion Chart

Lb. a.i./Acre	Fl. oz./Acre	pint/acre	treated acres/gallon
0.0075	0.77	0.05	167
0.01	1.02	0.06	125
0.0125	1.28	0.08	100
0.015	1.54	0.1	84
0.02	2.05	0.13	62

Maximum Yearly Use Rates for Gamma and Lambda Cyhalothrin on Labeled Crops

CROP	Maximum rate for Either Product Used Alone (lb./a.i./acre) [1]	
	Gamma-cyhalothrin (Sharda Gamma-Cyhalothrin 14.40% CS)	Lambda-cyhalothrin (Includes any lambda-cyhalothrin product approved for crop uses) [2]
Alfalfa	0.06	0.12
Canola	0.045	0.09
Cole crops	0.12	0.24
Corn	0.06	0.12
Sweet corn	0.24	0.48
Cotton	0.1	0.2
Cucurbits	0.09	0.18
Fruiting vegetables (except cucurbits)	0.18	0.36
Grass forage, fodder and hay	0.045	0.09
Legume vegetables	0.06	0.12
Lettuce (head and leaf)	0.15	0.3
Onion (bulb) and garlic	0.12	0.24
Peanut	0.06	0.12
Pome fruits	0.1	0.2
Rice and wild rice	0.06	0.12
Seed vegetables	0.06	0.12
Sorghum (grain)	0.04	0.08
Soybean	0.03	0.06
Stone fruits	0.1	0.2
Sugarcane	0.08	0.16
Sunflower	0.06	0.12
Tobacco (air dried)	0.045	0.09
Tree nuts including pecans	0.08	0.16
Tuberous & corm vegetables (potato, sweet potato, yams & related)	0.06	0.12
Wheat, wheat hay and triticale	0.03	0.06
Conifer and deciduous trees (plantations, nurseries and seed orchards)	0.12	0.24
Non-cropland areas adjacent to crops	0.1	0.2

[1] **NOTE:** If both gamma-cyhalothrin and lambda-cyhalothrin are used on a crop during the same crop growing year, the amounts of each that can be used can be calculated as shown in the following examples:

[2] Includes any lambda-cyhalothrin product approved for crop uses.

Example 1: If the maximum use rate for lambda-cyhalothrin = 0.12 lb. a.i./acre/year and 0.06 lb. a.i. has been applied, (0.12 – 0.06) ÷ 2 = 0.03 lb. a.i. of gamma-cyhalothrin could be applied during the remainder of the crop use year.

Example 2: If the maximum use rate for gamma-cyhalothrin = 0.06 lb. a.i./acre/year and 0.03 lb. a.i. has been applied, (0.06 – 0.03) X 2 = 0.06 lb. a.i. of lambda-cyhalothrin could be applied during the remainder of the crop use year.

ALFALFA, INCLUDING ALFALFA GROWN FOR SEED

PESTS	Sharda Gamma-Cyhalothrin 14.40% CS RATE	
	Lb. a.i./A	**Fl. oz./A**
Army cutworm (for use in Colorado, Kansas, Nebraska, Wyoming)	0.005 - 0.0075	0.51 – 0.77
Alfalfa weevil (for use in Colorado and Kansas) [1]	0.005 followed by 0.01	0.51 followed by 1.02
Potato leafhopper (for use in Maryland, Minnesota, Pennsylvania, and Wisconsin)	0.005-0.0125	0.51-1.28
Alfalfa caterpillar Cutworm spp. Green cloverworm Leafhopper spp. Looper spp. Three-cornered alfalfa hopper Velvetbean caterpillar Webworm spp.	0.0075 - 0.0125	0.77 - 1.28
Alfalfa seed chalcid (adult) Alfalfa weevil Armyworm Bean leaf beetle (adult) Blister beetle spp. Blue alfalfa aphid Clover leaf weevil spp. Clover root borer (adult) Clover root curculio spp. (adult) Clover stem borer (adult) Corn earworm Cowpea aphid Cowpea curculio (adult) Cowpea weevil (adult) Cucumber beetle spp. (adult) Egyptian alfalfa weevil Fall armyworm[2] Grape colaspis (adult) Grasshopper spp. Green June beetle (adult) Green peach aphid [4] Japanese beetle (adult) Meadow spittlebug Mexican bean beetle Pea aphid Pea weevil (adult) Plant bug spp., including Lygus spp. [4] Spotted alfalfa aphid Stink bug spp. Sweet clover weevil (adult) Thrips spp. [5] Western yellow-striped armyworm White-fringed beetle spp. (adult) Yellow-striped armyworm	0.01 - 0.015	1.02 - 1.54
Beet armyworm [2, 4] Blotch leafminer [4] Spider mites [3]	0.015	1.54

[1] For use in Colorado and Kansas. Use both applications only on first cutting in calendar year when alfalfa is more than 35 days from harvest and nighttime temperature is 50°F for three consecutive days before and after the first application. Apply second application based on new hatches.

[2] Use higher rates for large larvae.
[3] Suppression only.
[4] See resistance statement under **Use Precautions and Restrictions**.
[5] Does not include western flower thrips.

Precautions and Restrictions

- **DO NOT** apply more than 0.015 lb. active ingredient (0.096 pint) per acre per cutting.
- **DO NOT** apply more than 0.06 lb. active ingredient (0.38 pint) per acre per year.
- **Preharvest Interval: DO NOT** apply within 1 day of harvest for forage or within 7 days of harvest for hay.

Apply as required by scouting. Timing and frequency of applications should be based upon insect populations reaching locally determined economic thresholds.

Foliar Application

Follow application instructions as indicated in Bee Hazard Direction for Use.

Apply with ground or air equipment, using sufficient water to obtain full coverage of foliage. Apply in a minimum of 2 gallons per acre by air or 10 gallons per acre by ground. When foliage is dense and/or pest populations are high, 5 to 10 gallons per acre by air or 20 gallons per acre by ground and higher label use rates are recommended. Use higher rates in labeled use rate range for increased residual control.

Avoid application when bees are actively foraging by applying during the early morning or during the evening hours. Be aware of bee hazard resulting from a cool evening and/or morning dew. It may be advisable to remove bee shelters during and for 2 to 3 days following application. Avoid direct application to bee shelters.

CANOLA

PESTS	Sharda Gamma-Cyhalothrin 14.40% CS RATE	
	Lb. a.i./A	Fl. oz./A
Armyworm spp. Cabbage seedpod weevil cutworm spp. Diamondback moth Flea beetle Grasshoppers Looper spp. Lygus bug	0.0075 - 0.015	0.77- 1.54
Cabbage aphid	0.015	1.54

Precautions and Restrictions

- **DO NOT** apply more than 0.045 lb. active ingredient (0.29 pint) per acre per year.
- **Preharvest Interval: DO NOT** apply within 7 days of harvest.

Apply as required by scouting, usually at intervals of 5 days or more. Timing and frequency of applications should be based upon insect populations reaching locally determined economic threshold.

Foliar Application

Follow application instructions as indicated in Bee Hazard Direction for Use.

Apply with ground or air equipment using sufficient water to obtain full coverage of foliage. When applying by air, apply in a minimum of 2 gallons of water per acre.

COLE CROPS

CROPS	PESTS	Sharda Gamma-Cyhalothrin 14.40% CS RATE	
		Lb. a.i./A	Fl. oz./A
Brassica (head and stem), including but not limited to: Broccoli Brussel sprouts Cabbage Cavalo broccoli Cauliflower Chinese broccoli (gai lon) Chinese cabbage (napa)	Alfalfa looper Cabbage looper Cabbage webworm Cutworm pp. Imported cabbageworm Southern cabbageworm	0.0075 - 0.0125	0.77 - 1.28
	Aphid spp. [2, 3] Armyworm Beet armyworm [1, 3]	0.01 - 0.015	1.02 - 1.54

Chinese mustard cabbage (gai choy) Kohlrabi	Corn earworm Diamondback moth [3] Fall armyworm [1] Flea Beetle spp. Grasshopper spp. Japanese beetle (adult) Leafhopper spp. Meadow spittlebug Plant bug spp., including Lygus spp. [3] Spider mite spp. [2] Stink bug spp. Thrips spp. [2] Vegetable weevil (adult) Whitefly spp. [2, 3] Yellow-striped armyworm		
	Garden symphylan (*Scutigerella immaculata)* (CA) [4]	0.0125	1.28

[1] For control of first and second instars only.
[2] Suppression only.
[3] See resistance statement under **Use Precautions and Restrictions**.
[4] Use in California. Suppression. Apply as soil-applied treatment prior to planting. Apply with ground equipment in a minimum of 10 gallons per acre. Total lb. a.i./acre per year, 0.12 lb./a.i./acre (12.3 fl. oz./acre).

Precautions and Restrictions

- **DO NOT** apply more than 0.12 lb. active ingredient (0.77 pints) per acre per year.
- **Preharvest Interval: DO NOT** apply within 1 day of harvest.

Apply as required by scouting, usually at intervals of 5 days or more. Timing and frequency of applications should be based upon insect populations reaching locally determined economic thresholds.

Foliar Application

Follow application instructions as indicated in Bee Hazard Direction for Use.

Apply with ground or air equipment, using sufficient water to obtain full coverage of foliage. When applying by air, apply in a minimum of 2 gallons of water per acre.

CONIFER AND DECIDUOUS TREES (PLANTATIONS, NURSERIES, AND SEED ORCHARDS)

PESTS	Sharda Gamma-Cyhalothrin 14.40% CS RATE	
	Lb. a.i./A	**Fl. oz./A**
Bagworm Balsam twig aphid Balsam wooly aphid Birch leafminer Black pine weevil European elm bark beetle Gypsy moth Japanese beetle June beetle spp. Leaf beetle spp. Leafroller spp. May Beetle spp. Mealybug spp. (Suppression only) Pales weevil Pine chafer Pine colaspis beetle Pine conelet bug Pine leaf chermid Pine needle scale Pine sawfly spp. Pine tip moth spp.	0.01 - 0.02	1.02 - 2.05

Pine tortoise scale Pine weevil spp. Poplar aphid spp. Sawfly spp. Spittlebug spp. Spruce budworm Tent Caterpillar spp. Tussock moth spp. Webworm spp.		
Coneworm spp. Seed bug spp. Thrips spp.	See **Precautions and Restrictions** for pest-specific use instructions	

Precautions and Restrictions

- **DO NOT** apply more than 0.12 lb. active ingredient (0.77 pints) per acre per year.
- **DO NOT** apply as foliar broadcast application using a mechanically-pressurized handgun to nurseries.
- **DO NOT** apply as drench/soil/ground-direct application methods using a mechanically pressurized handgun to nurseries.

For Commercial Nurseries:

- **DO NOT** apply when the wind speed is greater than 10 mph.
- Applicators are required to select the nozzle and pressure that deliver a medium or coarser droplet size (ASABE S572).
- For soil or foliar applications, **DO NOT** apply by ground equipment within 25 feet of lakes, reservoirs, rivers, permanent streams, marshes or natural ponds, estuaries and commercial fish farm ponds.

Coneworm/Seed Bug/Thrips spp. In Seed Orchards:

- **DO NOT** apply more than 0.25 lb. active ingredient (1.6 pints) per acre per year.

Remarks:
To control exposed foliage, flower, cone, seed and bark feeding insects, apply as required by scouting. Timing and frequency of applications should be based upon insect populations reaching locally determined economic thresholds.

Foliar Application

Follow application instructions as indicated in Bee Hazard Direction for Use.

Apply with ground or air equipment, using sufficient water to obtain full coverage of target site. When applying by air, apply in a minimum of 2 gallons of water per acre.

Coneworm/Seed Bug/Thrips spp. in Seed Orchards:
For high volume sprayers, dilute 2.05 fl. oz. per 100 gallons of water and apply 5 to 10 gallons of finished spray per tree.

For low volume sprayers, dilute 8 fl. oz. per 100 gallons of water and apply 100 gallons of finished spray volume per acre.

For aerial application, apply 6 fl. oz. per acre in a minimum of 10 gallons of finished spray per acre.

CORN (AT PLANT SOIL APPLICATION) – FIELD CORN, POPORN, SEED CORN, SWEET CORN

PESTS	**Sharda Gamma-Cyhalothrin 14.40% CS RATE**	
	Lb. a.i./A	**Fl. oz./A**
Corn rootworm larvae: Mexican Northern Southern Western Cutworm spp. Lesser cornstalk borer Red imported fire ant [1] Seedcorn beetle Seedcorn maggot White grub spp. Wireworm spp. [1]	0.0025 lb. a.i. per 1000 ft. of row	0.26 fl. oz. per 1000 ft. of row
Reduced rates – selected states ** Wireworm spp.	0.0004 – 0.0008 lb. a.i. per 1000 ft of row	0.041 – 0.082 lb. a.i. per 1000 ft of row

Cutworm spp. [2] Seedcotton maggot White grub spp. [3]		
Corn rootworm larvae [3] Western Northern Southern Mexican Red imported fire ant [4]	0.001- 0.00175 lb. a.i. per 1000 ft of row	0.10 - 0.18 lb. a.i. per 1000 ft of row

** Arkansas, Colorado, Connecticut, Delaware, Iowa, Illinois, Kansas, Kentucky, Maine, Maryland, Massachusetts, Michigan, Minnesota, Missouri, Nebraska, New Jersey, New York, North Carolina, North Dakota, Ohio, Pennsylvania, Rhode Island, South Dakota, Tennessee, Vermont, Virginia, Wisconsin, and West Virginia.

[1] Suppression only.

[2] T-band or band only.

[3] For reducing damage only when use T-band or in-furrow on light to moderate infestations. Use 0.1 fl. oz to 0.14 fl.oz./1000 ft. of row for light infestations. Use 0.14 to 0.18 fl. oz./1000 ft. of row for moderate infestations. For high infestations, use a premium soil insecticide like Force 3G or Force CS insecticide.

[4] Suppression only use T-band or band.

Precautions and Restrictions

- **Pre-harvest Interval: DO NOT** harvest or graze livestock or cut treated crops for feed within 21 days of at plant application.
- **DO NOT** apply more than 0.045 lb. active ingredient (0.29 pint) per acre per crop at plant. For field corn, popcorn, and seed corn, **DO NOT** apply more than 0.06 lb. active ingredient per acre per crop from at plant and foliar applications. For sweet corn, **DO NOT** apply more than 0.24 lb. active ingredient per acre per crop from at plant and foliar applications.

Banded Applications: Apply at planting as a 5 to 7 inch T-band sprayed across the open seed furrow between the furrow opener and the press wheel or as a band application behind the press wheel.

In-Furrow Applications: Apply into the seed furrow through spray nozzles or microtubes, behind the planter furrow opener and in front of the press wheel.

Apply a minimum spray volume of 3 gallons per acre.

Fluid Ounces and Pounds Active Ingredient per Acre of Sharda Gamma-Cyhalothrin 14.40% CS Applied at 0.66 fl. oz. per 1000 ft. of Row for Various Row Spacings

Row spacing	**40"**	**38"**	**36"**	**34"**	**32"**	**30"**
Linear ft./acre	13,068	13,756	14,520	15,374	16,335	17,424
Fl. oz./acre	3.4	3.6	3.8	4.0	4.3	4.6
Lb. a.i./acre	0.034	0.035	0.037	0.040	0.042	0.045

CORN (FOLIAR APPLICATION) – FIELD CORN, POPCORN, SEED CORN

PESTS	**Sharda Gamma-Cyhalothrin 14.40% CS RATE**	
	Lb. a.i./A	**Fl. oz./A**
Cutworm spp. (selected states)**	0.005-0.0075	0.51-0.77
Corn earworm [1] Cutworm spp. Green cloverworm Meadow Spittlebug Western bean cutworm [1]	0.0075 - 0.0125	0.77 - 1.28
Alfalfa weevil (adult) (Iowa, Kansas, Missouri, Nebraska) Armyworm [2] Bean leaf beetle Cereal leaf beetle Corn leaf aphid [3] English grain aphid [3] European corn borer [1] Fall armyworm [2] Flea beetle spp. Grasshopper spp. Hop vine borer [1] Hornworm spp. (Iowa, Kansas, Missouri, Nebraska)	0.01 - 0.015	1.02 - 1.54

Japanese beetle (adult) Lesser cornstalk borer [1] Mexican corn rootworm beetle[2] (adult) Northern corn rootworm beetle[2] (adult) Oat bird-cherry aphid [3] Sap beetle (adult) Southern corn rootworm beetle[2] (adult) Southwestern corn borer [1] Stalk borer [1] Stink bug spp. Tobacco budworm [1,4] Webworm spp. Western corn rootworm beetle [7] (adult) Yellow-striped armyworm [2]		
Beet armyworm [2,4] Chinch bug [6] Greenbug [3, 4] Mexican rice borer [1] Rice stalk borer [1] Southern corn leaf beetle (*Myochrous Denticollis)* [3, 5] Sugarcane borer [1]	0.015	1.54

** Alabama, Arkansas, Florida, Georgia, Louisiana, Mississippi, Missouri (only in counties: Bollinger, Butler, Cape Girardeau, Dunklin, Madison, Mississippi, New Madrid, Pemiscot, Ripley, Scott, Stoddard, Wayne), New Mexico, North Carolina, Oklahoma, South Carolina, Tennessee, and Virginia.

[1] For control before larvae bore into the plant stalk or ear.

[2] Use higher label rates for large larvae.

[3] Suppression only

[4] See resistance statement under **Use Precautions and Restrictions**.

[5] In Illinois, Kansas, and Missouri for field and seed corn, may also be applied through chemigation equipment.

[6] For **chinch bug** control, begin applications when bugs migrate from small grains or grass weeds to small corn. Direct spray to the base of corn plants. Repeat applications at 3- to 5-day intervals if needed. **Sharda Gamma-Cyhalothrin 14.40% CS** may only suppress heavy infestations and/or subsequent migrations.

[7] For control of adult **corn rootworm beetles** (*Diabrotica* spp.) as part of an aerial-applied corn rootworm control program, use upper end of rate range at 1.54 fl. oz. per acre (0.015 lb. active ingredient per acre).

Precautions and Restrictions

- **DO NOT** allow livestock to graze in treated areas or harvest treated corn forage as food for meat or dairy animals within 1 day after last treatment. **DO NOT** feed treated corn fodder or silage to meat or dairy animals within 21 days after the last treatment.
- **DO NOT** apply more than 0.06 lb. active ingredient (0.38 pint) per acre per crop from at plant and foliar applications.
- **DO NOT** apply more than 0.03 lb. active ingredient (0.19 pint) after silk initiation.
- **DO NOT** apply more than 0.015 lb. active ingredient (0.096 pint) after corn has reached the milk stage (yellow kernels with milky fluid).
- **Preharvest Interval**: **DO NOT** apply within 21 days of harvest.

Apply as required by scouting, or locally prescribed corn growth stages, usually at intervals of 7 days or more. Timing and frequency of applications should be based upon insect populations reaching locally determined economic thresholds or other locally recommended methods.

Foliar Application

Follow application instructions as indicated in Bee Hazard Direction for Use.

Apply with ground or air equipment, using sufficient water and application methods to obtain full coverage of target location. When applying by air, apply in a minimum of 2 gallons of water per acre.

SWEET CORN (AT PLANT SOIL APPLICATION)

PESTS	**Sharda Gamma-Cyhalothrin 14.40% CS RATE**	
	Lb. a.i. per 1000 ft. of row	**Fl. oz. per 1000 ft. of row**
Reduced rates – selected states **		
Wireworm spp.	0.0004	

Cutworm spp. [1] Seedcotton maggot	0.0008	0.041
White grub spp. [2]		0.082
Corn rootworm larvae [2] Western Northern Southern Mexican Red imported fire ant [3]	0.001-0.00175	0.010-0.18

** Arkansas, Colorado, Connecticut, Delaware, Iowa, Illinois, Kansas, Kentucky, Maine, Maryland, Massachusetts, Michigan, Minnesota, Missouri, Nebraska, New Jersey, New York, North Carolina, North Dakota, Ohio, Pennsylvania, Rhode Island, South Dakota, Tennessee, Vermont, Virginia, Wisconsin, and West Virginia.

[1] T-band or band only.

[2] For reducing damage only when use T-band or in-furrow on light to moderate infestations. Use 0.1 – 0.14 fl. oz./1000 ft. of row for light infestations. Use 0.14 to 0.18 fl. oz./1000 ft. of row for moderate infestations. For high infestations, use a premium soil insecticide.

[3] Suppression only use T-band or band.

Precautions and Restrictions

- **Pre-harvest Interval: DO NOT** harvest or graze livestock or cut treated crops for feed within 21 days of at plant application.
- **DO NOT** apply more than 0.045 lb. active ingredient (0.29 pint) per acre per crop at plant. For field corn, popcorn, and seed corn, **DO NOT** apply more than 0.06 lb. active ingredient per acre per crop from at plant and foliar applications. For sweet corn, **DO NOT** apply more than 0.24 lb. active ingredient per acre per crop from at plant and foliar applications.

Banded Applications: Apply at planting as a 5 to 7 inch T-band sprayed across the open seed furrow between the furrow opener and the press wheel or as a band application behind the press wheel.

In-Furrow Applications: Apply into the seed furrow through spray nozzles or microtubes, behind the planter furrow opener and in front of the press wheel.

Apply a minimum spray volume of 3 gallons per acre.

SWEET CORN (FOLIAR APPLICATION)

PESTS	Sharda Gamma-Cyhalothrin 14.40% CS RATE	
	Lb. a.i./A	**Fl. oz./A**
Corn earworm (Idaho, Oregon, and Washington– grown for processing)	0.0075-0.01	0.77-1.02
Aphid spp. [2, 3] Aster leafhopper Beet armyworm [1, 3] Chinch bug Common cornstalk borer Corn earworm Cutworm spp. European corn borer Ffall armyworm [1] Flea beetle spp. Grasshopper spp. Japanese beetle (adult) Mexican corn rootworm beetle (adult) Northern corn rootworm beetle (adult) Sap beetle (adult) Southern armyworm [1] Southern corn rootworm beetle (adult) Southwestern corn borer Spider mite spp. [2] Stink bug spp. Tarnished plant bug Webworm spp. Western bean cutworm Western corn rootworm beetle (adult) Yellow-striped armyworm [1]	0.01 - 0.015	1.02 - 1.54
Corn silk fly (adult) [2] Southern corn leaf beetle (*Myochrous denticollis)* [4]	0.015	1.54

[1] Use higher rates for large larvae.

[2] Suppression only.

[3] See resistance statement under **Use Precautions and Restrictions**.

[4] Use in Illinois, Kansas, and Missouri. May also be applied through chemigation equipment.

Precautions and Restrictions

- **DO NOT** allow livestock to graze in treated areas or harvest treated corn forage as food for meat or dairy animals within 1 day after last treatment.
- **DO NOT** feed treated corn fodder or silage to meat or dairy animals within 21 days after the last treatment.
- **DO NOT** apply more than 0.24 lb. active ingredient (1.54 pints) per acre per crop from at plant and foliar applications.
- **Preharvest Interval: DO NOT** apply within 1 day of harvest.

Apply as required by scouting, or locally prescribed corn growth stages, usually at intervals of 4 days or more. Timing and frequency of applications should be based upon insect populations reaching locally determined economic thresholds or other locally recommended methods and should be targeted for control before insects enter the stalk or ear.

Foliar Application

Follow application instructions as indicated in Bee Hazard Direction for Use.

Apply with ground or air equipment, using sufficient water and application methods to obtain full coverage of foliage and ears (if present). When applying by air, apply in a minimum of 2 gallons of water per acre. May be applied through chemigation in Illinois, Kansas, and Missouri.

For control of adult corn rootworm beetles (*Diabrotica* species) as part of an aerial-applied corn rootworm control program, use a minimum of 1.28 fl. oz. per acre (0.0125 lb. active ingredient per acre).

COTTON

PESTS	Sharda Gamma-Cyhalothrin 14.40% CS RATE	
	Lb. a.i./A	**Fl. oz./A**
For use in selected states** **up to 4 weeks after cotton emergence only.** Cutworm spp. Thrips	0.005	0.51
Cutworm spp. Soybean thrips Tobacco thrips	0.0075 - 0.01	0.77 - 1.02
Cabbage looper Cotton fleahopper Cotton leaf perforator Cotton leafworm Lygus bug spp. [3] Pink bollworm (adult) Saltmarsh caterpillar	0.01 - 0.015	1.02 - 1.54
Banded wing whitefly [2, 3] Beet armyworm [1, 3] Boll weevil Brown stink bug Cotton aphid [2, 3] Cotton bollworm European corn borer Fall armyworm Green stink bug Southern green stink bug Sweet potato whitefly [2, 3] Tobacco budworm [3] Two-spotted spider mite [2]	0.0125 - 0.02	1.28 - 2.05

** Use in Alabama, Arkansas, Florida, Georgia, Louisiana, Mississippi, Missouri, New Mexico, North Carolina, Oklahoma, South Carolina, Tennessee, and Virginia.

[1] For control of first and second instars only.

[2] Suppression only.

[3] See resistance statement under **Use Precautions and Restrictions**.

Precautions and Restrictions

- **DO NOT** graze livestock in treated areas.
- **DO NOT** apply more than 0.64 pints (0.1 lb. active ingredient) per acre per year.
- **DO NOT** make more than a total of 10 synthetic pyrethroid applications (of one product or combination of products) to a cotton crop in one growing year.
- **Preharvest Interval: DO NOT** apply within 21 days of harvest.

Apply as required by scouting, usually at intervals of 5 to 7 days. Timing and frequency of applications should be based upon insect populations reaching locally determined economic thresholds.

Foliar Application

Follow application instructions as indicated in Bee Hazard Direction for Use.

Apply with ground or air equipment, using sufficient water to obtain full coverage of foliage.

Applications may also be made with equipment adapted and calibrated for ULV sprays. **Sharda Gamma-Cyhalothrin 14.40% CS** may be mixed with once-refined vegetable oil and applied in a minimum of at least 1 quart of finished spray per acre.

Under light bollworm/budworm infestation levels, 0.01 lb. active ingredient per acre may be applied in conjunction with intense field monitoring.

For boll weevil control, spray on a 3- to 5-day schedule.

When applied according to label directions for control of cotton bollworm and tobacco budworm, **Sharda Gamma-Cyhalothrin 14.40% CS** also provides ovicidal control of unhatched *Heliothis* spp. eggs.

CUCURBIT VEGETABLES

Cucurbit Vegetables	PESTS	Sharda Gamma-Cyhalothrin 14.40% CS RATE	
		Lb. a.i./A	Fl. oz./A
Chayote (fruit) Chinese waxgourd (Chinese preserving melon) Citron melon Cucumber Gherkin Gourd (edible) *Lagenaria* spp. – includes: hyotan, cucuzza *Luffa acutangula* – includes: hechima, Chinese okra *Momordica* spp.— includes balsam apple, balsam pear, bitter melon, Chinese cucumber Muskmelon (hybrids and cultivars of *Cucumis melo*) includes: true cantaloupe, casaba, crenshaw melon, golden pershaw melon, honeydew melon, honey balls, mango melon, Persian melon, pineapple melon, Santa Claus melon, snake melon Pumpkin Squash, summer (*Cucurbita pepo* var. *melopepo*) includes: crookneck squash, scallop squash, straightneck squash, vegetable marrow, zucchini	Armyworm species [1] Blister beetle species Cabbage looper Corn earworm Cricket species Cucumber beetle species (adult) Cutworm species Flea beetle species Grasshopper species June beetle species Leaf-footed bug Leafhopper species Lygus bug species [1] Melonworm Pickleworm Plant bug species Rindworm species complex Saltmarsh caterpillar Squash beetle Squash bug species Squash vine borer species Stink bug species Thrips species [1, 2] Tobacco budworm [1] Webworm species	0.01 - 0.015	1.02 - 1.54
	Aphid species [1] Leafminer species [1, 3] Whitefly species [1, 3] spider mite species [3]	0.015	1.54

Squash, winter (*Cucurbita maxima; C. moschata*) includes: butternut squash, calabaza, hubbard squash (*C. mixta; C. pepo*) includes: acorn squash, spaghetti squash Watermelon – includes: hybrids and varieties of *Citrulius lanatus*			

[1] See resistance statement under **Use Precautions and Restrictions** section of this label.
[2] Does not include Western flower thrips.
[3] Suppression only.

Precautions and Restrictions

- **DO NOT** apply more than 0.09 lb. active ingredient (0.58 pints) per acre per year.
- **Preharvest Interval**: **DO NOT** apply within 1 days of harvest.

Apply as required by scouting, usually at intervals of 5 days or more. Timing and frequency of applications should be based upon insect populations reaching locally determined economic thresholds.

Foliar Application

Follow application instructions as indicated in Bee Hazard Direction for Use.

Apply with ground or air equipment, using sufficient water to obtain full coverage of foliage. When applying by air, apply in a minimum of 2 gallons of water per acre.

Use higher application values and label rates when foliage is dense, pest populations are high, larvae are large or weather conditions are adverse.

Use higher rates for longer residual control.

Insects that bore or tunnel into leaves, vines, stems, or fruit must be controlled before penetration. Only exposed insects (larvae or adults) can be controlled with foliar applications of **Sharda Gamma-Cyhalothrin 14.40% CS** herbicide.

FRUITING VEGETABLES (EXCEPT CUCURBITS)

FRUITING VEGETABLES	PESTS	Sharda Gamma-Cyhalothrin 14.40% CS RATE	
		Lb. a.i./A	Fl. oz./A
Tomato Tomatillo Peppers (bell and non-bell) Eggplant Ground cherry Okra Pepino	Cabbage looper Cutworm spp. Hornworm spp.	0.0075 - 0.0125	0.77 - 1.28
	Aphid spp. [2, 3] Beet armyworm [1, 3] Blister beetle spp. Colorado potato beetle [3] Cucumber beetle spp. (adult) European corn borer [4] Fall armyworm [1] Flea beetle spp. Grasshopper spp. Japanese beetle (adult) Leafhopper spp. Leafminer spp. [2] Meadow spittlebug Pepper weevil (adult) [2] Plant bug spp. Southern armyworm [1] Spider mite spp. [2] Stalk borer [4] Stink bug spp. Thrips [3, 5] Tobacco budworm [3] Tomato fruit worm Tomato pinworm	0.01 - 0.015	1.02 - 1.54

	Tomato psyllid [2, 3] Vegetable weevil (adult) Whitefly spp. [2, 3] Yellow-striped armyworm [1]		
	Garden symphylan (*Scutigerella immaculata)* California [6]	0.0125	1.28

[1] For control of first and second instars only.
[2] Suppression only.
[3] See resistance statement under **Use Precautions and Restrictions**.
[4] For control before larvae bore into the plant stalk or fruit.
[5] **Does not include western flower thrips.**
[6] Use in California. Suppression. Apply as soil-applied treatment prior to planting. Apply with ground equipment in a minimum of 10 gallons per acre. Total lb. a.i./acre per year, 0.18 lb. a.i./acre (19.5 fl. oz./acre).

Precautions and Restrictions

- **DO NOT** apply more than 0.18 lb. active ingredient (1.15 pints) per acre per year.
- **Preharvest Interval: DO NOT** apply within 5 days of harvest.

Apply as required by scouting, usually at intervals of 5 days or more. Timing and frequency of applications should be based upon insect populations reaching locally determined economic thresholds.

Foliar Application

Follow application instructions as indicated in Bee Hazard Direction for Use.

Apply with ground or air equipment, using sufficient water to obtain full coverage of foliage. When applying by air, apply in a minimum of 2 gallons of water per acre.

GRASS FORAGE, FODDER, AND HAY - PASTURE AND RANGELAND GRASS, GRASS GROWN FOR HAY OR SILAGE, AND GRASS GROWN FOR SEED

PESTS	Sharda Gamma-Cyhalothrin 14.40% CS RATE	
	Lb. a.i./A	Fl. oz./A
Army cutworm Cutworm species Essex skipper Range caterpillar Striped grass looper	0.0075 – 0.0125	0.77 – 1.28
Beet armyworm Billbug species [1] Bird cherry-oat aphid [2] Black grass bug Black turfgrass beetle (adult) Blue stem midge Cereal leaf beetle Chinch bug Crane fly species Cricket species English grain aphid [2] Fall armyworm Flea beetle species Grass mealybug Grass sawfly (adult) Grasshopper species Green June beetle Greenbug [2, 3] Japanese beetle (adult) Katydid species Leafhopper species Mite species [1] Russian wheat aphid [2]	0.01 – 0.015	1.02 – 1.54

Southern armyworm Spittlebug species Stink bug species Sugarcane aphid Thrips species Tick species True armyworm Webworm species Yellow-striped armyworm		

[1] Suppression only.
[2] Best control is obtained before insects begin to roll leaves.
[3] See resistance statement under **Use Precautions and Restrictions**.

Precautions and Restrictions

- Pasture and rangeland grass may be used for grazing or cut for forage 0 days after application. **DO NOT** cut grass to be dried and harvested for hay until 7 days after the last application.
- **DO NOT** apply more than 0.015 lb. ai (1.54 fl. oz. of product) per acre per cutting for pastures, rangeland, and grasses grown for seed. A minimum re-treatment interval (RTI) of 30 days is required for pastures and rangeland receiving 0.015 lb. a.i./acre that have not been cut between applications.
- **DO NOT** apply more than 0.045 lb. a.i./acre (4.6 fl. oz./acre) per acre per year.

Apply as required by scouting. Timing and frequency of applications should be based upon insect populations reaching locally determined economic thresholds.

Foliar Application

Follow application instructions as indicated in Bee Hazard Direction for Use.

Apply with ground or air equipment, using sufficient water and application methods to obtain full coverage of foliage. When applying by air, apply in a minimum of 2 gallons of water per acre. When applying by ground, apply in a minimum of 7 gallons of water per acre.

Use higher application volumes and rates when foliage is dense, pest populations are high, larvae are large, or weather conditions are adverse. Use higher rates for longer residual.

For chinch bug control, **Sharda Gamma-Cyhalothrin 14.40% CS** insecticide may only suppress heavy infestations or migrations. In this situation, a second application using an alternative chemistry may be needed.

Greenbug is known to have many biotypes. **Sharda Gamma-Cyhalothrin 14.40% CS** may provide suppression only. In this situation, a second application using an alternative chemistry may be needed.

Grass grown for seed: Straw, hay, and mature seed (seed screenings) may be used as feed 7 days after the last application. Regrowth of grass grown for seed may be used for grazing, cut for forage, or cut to be dried and harvested for hay.

LEGUME VEGETABLES

CROP/VARIETY	PESTS	Sharda Gamma-Cyhalothrin 14.40% CS RATE	
		Lb. a.i./A	Fl. oz./A
Edible podded (only) *Canavalia gladiata* – sword bean *Canavalia ensiformis* jackbean *Glycine max* - soybean - immature seed	Cutworm spp. Green cloverworm Imported cabbageworm Mexican bean beetle Saltmarsh caterpillar Velvetleaf caterpillar	0.0075 - 0.0125	0.77- 1.28
Edible podded, succulent shelled or dried shelled *Phaseolus* spp. - includes: field, kidney, lima, navy, pinto, runner, snap, tepary and wax beans *Vigna* spp. – includes: adzuki, asparagus,	Alfalfa caterpillar Aphid spp. [4] Armyworm [2] Bean leaf beetle Bean leaf skeletonizer Blister beetle spp. Corn earworm Corn rootworm Beetle spp. (adult) Cucumber beetle spp. (adult) Curculio and weevil spp. [1] (foliage and pod feeding	0.01 - 0.015	1.02- 1.54

moth, mung, rice, urd and yard-long beans, black-eye pea, catjang, Chinese long bean, cowpea, crowder pea, and southern pea *Pisum* spp. – includes dwarf, edible-pod, English, field, garden, green, snow and sugar snap peas *Cajanus cajan* – pigeon peas **Succulent shelled or dried shelled** *Vicia faba* - broadbean (favabean) **Dried shelled (only)** *Lupinus* spp. - includes: grain, sweet, white and sweet white lupines *Cicer arietimum* - chickpea (garbanzo bean) *Cyamopsis tetragonoloba* - guar *Lablab purpureus*- lablab bean (hyacinth bean) *Lens esculata* - Lentils	adults and larvae) European corn borer [1] Fall armyworm [2] Flea beetle spp. (adult) Flea hopper spp. Grasshopper spp. Japanese beetle (adult) Leafhopper spp. Leaftier spp. Looper spp. Meadow spittlebug Painted lady butterfly (larvae) Plant bug spp. including lygus spp. [4] Stalk borer [1] Stink bug spp. Three-cornered alfalfa hopper Thrips spp. [4, 5] Tobacco budworm [4] Webworm spp. Western bean cutworm Western yellow-striped armyworm [2] Yellow-striped armyworm [2]		
	Seed corn maggot (adult) (for use in Washington)	0.0125-0.015	1.28-1.54
	Garden symphylan (*Scutigerella immaculata*) California -(see **Remarks**)	0.0125	1.2854
	Beet armyworm [3, 4] Leafminer spp. [3, 4] Lesser cornstalk borer [3] Soybean looper [3, 4] Spider mite spp. [3] Whitefly spp. [3, 4]	0.015	1.54

[1] For control before larvae bore into the plant stalk or pods.
[2] Use higher rates for large larvae.
[3] Suppression only.
[4] See resistance statement under **Use Precautions and Restrictions**.
[5] Does not include western flower thrips.

Precautions and Restrictions

- **DO NOT** apply more than 0.06 lb. active ingredient (0.38 pint) per acre per year.
- For succulent and dried shelled peas and beans, **DO NOT** graze livestock in treated areas or harvest vines for forage or hay.
- **Preharvest Interval**: For edible podded and succulent shelled legume vegetables, **DO NOT** apply within 7 days of harvest. For dried shelled legume vegetables, **DO NOT** apply within 21 days of harvest.

Foliar Application

Follow application instructions as indicated in Bee Hazard Direction for Use.

Apply as required by scouting, usually at intervals of 5 days or more. Timing and frequency of applications should be based upon insect populations reaching locally determined economic thresholds.

Apply with ground or air equipment, using sufficient water to obtain full coverage of foliage. When applying by air, apply in a minimum of 2 gallons of water per acre.

Remarks: Use in California. Suppression. Apply as soil-applied treatment prior to planting. Apply with ground equipment in a minimum of 10 gallons per acre. Total lb. a.i./acre per year, 0.0.06 lb. a.i./acre (6.15 fl. oz./acre).

LETTUCE (HEAD AND LEAF)

PESTS	**Sharda Gamma-Cyhalothrin 14.40% CS RATE**	
	Lb. a.i./A	**Fl. oz./A**

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Alfalfa looper Cabbage looper Cutworm spp. Green cloverworm Imported cabbageworm Saltmarsh caterpillar	0.0075 - 0.0125	0.77 - 1.28
Aphid spp. [2, 3] Armyworm Beet armyworm [1, 3] Corn earworm Diamondback moth [3] European corn borer Fall armyworm [1] Flea beetle spp. Grasshopper spp. Japanese beetle (adult) Leafhopper spp. Meadow spittlebug Plant bug spp., including Lygus spp. [3] Southern armyworm Spider mite spp. [2] Stink bug spp. Tobacco budworm [3] Vegetable weevil (adult) Whitefly spp. [2, 3]	0.01 - 0.015	1.02 - 1.54
Garden symphylan (*Scutigerella immaculata)* California (see **Remarks**)	0.0125	1.28
[1] For control of first and second instars only. [2] Suppression only. [3] See resistance statement under **Use Precautions and Restrictions**.		
Precautions and Restrictions • **DO NOT** apply more than 0.15 lb. active ingredient (0.96 pints) per acre per year. • **Preharvest Interval**: **DO NOT** apply within 1 day of harvest. Apply as required by scouting, usually at intervals of 5 days or more. Timing and frequency of applications should be based upon insect populations reaching locally determined economic thresholds. **Foliar Application** Follow application instructions as indicated in Bee Hazard Direction for Use. Apply with ground or air equipment, using sufficient water to obtain full coverage of foliage. When applying by air, apply in a minimum of 2 gallons of water per acre. **Remarks:** Use in California. Suppression. Apply as soil-applied treatment prior to planting. Apply with ground equipment in a minimum of 10 gallons per acre. Total lb. a.i./acre per year, 0.15 lb./a.i./acre (15.4 fl. oz./acre).		

ONION (BULB) AND GARLIC

PESTS	**Sharda Gamma-Cyhalothrin 14.40% CS RATE**	
	Lb. a.i./A	**Fl. oz./A**
Cutworm spp. Leafminer spp. (adult) Onion maggot (adult) Seedcorn maggot (adult)	0.0075 - 0.0125	0.77 - 1.28
Aphid spp. [2] Armyworm spp. [1] Flower thrips [2] Onion thrips Plant bug spp. Stink bug spp.	0.01 - 0.015	1.02 - 1.54

Tobacco thrips Western flower thrips [2, 3]		

[1] For control of first and second instars only.
[2] Suppression only.
[3] See resistance statement under **Use Precautions and Restrictions**.

Precautions and Restrictions

- **DO NOT** apply more than 0.12 lb. active ingredient (0.77 pints) per acre per year.
- **Preharvest Interval**: **DO NOT** apply within 14 days of harvest.

Apply as required by scouting, usually at intervals of 5 days or more. Timing and frequency of applications should be based upon insect populations reaching locally determined economic thresholds.

Foliar Application

Follow application instructions as indicated in Bee Hazard Direction for Use.

Apply with ground or air equipment, using sufficient water and application methods to obtain full coverage of foliage. When applying by air, apply in a minimum of 2 gallons of water per acre.

Remarks: Use the higher label rates as thrips population increases and avoid rescue situations.

For control of thrips by aerial application, the addition of 1% COC v/v, 0.25% NIS v/v or a silicone adjuvant may enhance the deposition of the spray and increase plant coverage. Follow adjuvant manufacturer's use directions.

PEANUT

PESTS	Sharda Gamma-Cyhalothrin 14.40% CS RATE	
	Lb. a.i./A	**Fl. oz./A**
Cutworm spp. Green cloverworm Potato leafhopper Red-necked peanut worm Three cornered alfalfa hopper Velvetbean caterpillar	0.0075 - 0.0125	0.77 - 1.28
Bean leaf beetle Corn earworm Fall armyworm [1] Grasshopper spp. Southern corn rootworm (adult) Stink bug spp. Tobacco thrips Vegetable weevil White fringed beetle (adult)	0.01 - 0.015	1.02 - 1.54
Aphid spp. [2] Beet armyworm [1, 3] Lesser cornstalk borer [2] Soybean looper [2, 3] Spider mite spp. [2]	0.015	1.54

[1] Use higher rates for large larvae.
[2] Suppression only.
[3] See resistance statement under **Use Precautions and Restrictions**.

Precautions and Restrictions

- **DO NOT** apply more than 0.06 lb. active ingredient (0.38 pint) per acre per year.
- **Preharvest Interval**: **DO NOT** apply within 14 days of harvest.

Apply as required by scouting, usually at intervals of 7 days or more. Timing and frequency of applications should be based upon insect populations reaching locally determined economic thresholds.

Foliar Application

Follow application instructions as indicated in Bee Hazard Direction for Use.

Apply with ground or air equipment, using sufficient water to obtain full coverage of foliage. When applying by air, apply in a minimum of 2 gallons of water per acre.

POME FRUITS

CROP	PESTS	Sharda Gamma-Cyhalothrin 14.40% CS RATE	
		Lb. a.i./A	Fl. oz./A
Apple Crabapple Loquat Mayhaw Oriental pear Pear Quince	Apple aphid Apple maggot (adult) Cherry fruit fly spp. (adult) Codling moth Green fruitworm Japanese beetle Leafhopper spp. Leafroller spp. Lesser appleworm Omnivorous leafroller Orange tortrix Oriental fruit moth Pear psylla [1] Pear sawfly Periodical cicada Plant bug spp. Plum curculio Rosy apple aphid San Jose scale (fruit infestations only) Spirea aphid [1] Stink bug spp. Tent caterpillar spp. Tentiform leaf miner spp. Tree borer spp. Tufted apple budworm	0.01 - 0.02	1.02 - 2.05

[1] Suppression only.

Precautions and Restrictions

- **DO NOT** apply more than 0.1 lb. active ingredient (0.64 pints) per acre per year. **DO NOT** apply more than 0.08 lb. active ingredient (0.51 pints) per acre per year post bloom.
- **Preharvest interval**: **DO NOT** apply within 21 days of harvest.

Apply as required by scouting, usually at intervals of 5 days or more. Timing and frequency of applications should be based upon insect populations reaching locally determined economic thresholds and IPM recommendations.

Foliar Application

Follow application instructions as indicated in Bee Hazard Direction for Use.

Apply with ground or air equipment, using sufficient water to obtain full coverage of foliage or target area. When applying by air, apply in a minimum of 5 gallons of water per acre, but use higher volumes as appropriate for thorough coverage.

RICE AND WILD RICE

PESTS	Sharda Gamma-Cyhalothrin 14.40% CS RATE	
	Lb. a.i./A	Fl. oz./A

Bird cherry-oat aphid Chinch bug Fall armyworm Grasshopper spp. Greenbug Leafhopper spp. Rice stink bug Rice water weevil (adult) Riceworm Sharpshooter spp. True armyworm Yellow-striped armyworm Yellow sugarcane aphid	0.0125 - 0.02	1.28 - 2.05
Rice water weevil (wet-seeded rice in California[1]) European corn borer [2] Mexican rice borer [2] Rice seed midge Rice stalk borer [2] Sugarcane borer [2]	0.015-0.02	1.54-2.05

[1] See "Remarks" below for application information.
[2] For control before larvae bore into the plant stalk.

Precautions and Restrictions

- **DO NOT** release flood water within 7 days of an application.
- **DO NOT** apply more than 0.06 lb. active ingredient (0.38 pint) per acre per year. **DO NOT** apply more than 0.04 lb. active ingredient (0.26 pint) per acre within 28 days of harvest or more than 0.02 lb. active ingredient (0.13 pint) per acre within 21 days of harvest.
- **DO NOT** use treated rice fields for the aquaculture of edible fish and crustaceans.
- **DO NOT** apply as an ultra-low volume (ULV) spray.
- **Preharvest Interval**: **DO NOT** apply within 21 days of harvest.
- **Preharvest interval for wild rice in Minnesota**: **DO NOT** apply within 7 days of harvest.

Apply as required by scouting. Timing and frequency of applications should be based upon insect populations reaching locally determined economic thresholds. Determine the need for repeat applications, usually at intervals of 5 to 7 days, by scouting. **Sharda Gamma-Cyhalothrin 14.40% CS** can be used safely when propanil products are being used for weed control.

Foliar Application

Follow application instructions as indicated in Bee Hazard Direction for Use.

Apply by air or by ground equipment, using sufficient water to obtain full coverage of foliage. When applying by air, apply in a minimum of 2 gallons of water (or total carrier volume) per acre, but ensure sufficient volume is used to provide adequate coverage. The addition of emulsifiable crop oil at 1 pint per acre when lower aerial application volumes are used is recommended to improve coverage, reduce evaporation, and improve efficacy.

Remarks:
For control of rice water weevil in dry seeded rice, make a foliar application as indicated by scouting for the presence of adults and/or feeding scars, usually within a time-frame of 0 to 5 days after permanent flood establishment. **DO NOT** exceed 10 days from starting permanent flood until insecticide application unless scouting indicates weevils have not been previously present. Adults may also be treated at later stages of rice development to reduce overwintering populations.

For control of rice water weevil in water-seeded rice, make the first foliar application after pinpoint flood as indicated by scouting for the presence of adults and/or feeding scars usually when rice has emerged 0.5 inch above the waterline. Under conditions of prolonged migration into the field, start field scouting for rice water weevil adults and/or feeding scars 3 to 5 days after the initial treatment and, if needed, apply a second application within 7 to 10 days of the first application. Adults may also be treated at later stages of rice development to reduce over-wintering populations.

California: In addition to above directions for control of rice water weevil in water seeded rice, **Sharda Gamma-Cyhalothrin 14.40% CS** may be applied at the 1 to 3 leaf growth stage, with the majority at the 2 leaf growth stage. Adults are vulnerable on levees and in the water. Larvae are vulnerable while feeding on the leaf prior to entering the soil. Monitor for adults, based upon field history and density of population. Monitor field edges and levee areas for adults. Treat in the following manner: a) spray the inside perimeter of the field, or b) spray the entire field.

For control of stem borers, scout fields, when rice growth is near panicle differentiation, for early symptoms of damaging populations

exhibited as discoloration (orange-tan) around the junction of the leaf sheath and blade which is caused by feeding of young larvae within the sheath. Applications must be made before larvae bore into rice stems. Make the first application at panicle differentiation to 2 inch panicle for partial control. Make the second application at boot to heading for maximum control. All rice varieties are susceptible to stem borer damage, but Cocodrie and Priscilla are particularly susceptible.

Greenbug is known to have many biotypes. **Sharda Gamma-Cyhalothrin 14.40% CS** may provide only suppression. If satisfactory control is not achieved with the first application of **Sharda Gamma-Cyhalothrin 14.40% CS**, a resistant biotype may be present. Use alternate chemistry for control.

SEED VEGETABLES (FOR USE IN OREGON; MAY APPLY ONLY ON SEED CARROT IN IDAHO)

CROP	PESTS	Sharda Gamma-Cyhalothrin 14.40% CS RATE	
		Lb. a.i./A	Fl. oz./A
Seed Carrot Seed Dill Seed Parsley Seed Parsnip Seed Radish (except Daikon)	Lygus bug spp.	0.01 -0.015	1.02 – 1.54

Precautions and Restrictions

- This product is highly toxic to bees exposed to direct treatment or residues on blooming crops or broadleaf weeds. **DO NOT** apply 1.54 fl. oz./acre (0.015 lb. a.i./acre) to blooming seed crops. Apply 1.54 fl. oz./acre only as a pre-bloom or post-bloom spray. Applications of 1.02 fl. oz./acre (0.01 lb. a.i./acre) of **Sharda Gamma-Cyhalothrin 14.40% CS** to blooming seed crops must by timed to coincide with periods of minimum bee activity between late evening and midnight. Be aware of bee activity resulting from a cool evening or morning dew. Avoid direct application to bee shelters/hives. It may be advisable to remove bee shelters/hives during and for 2 to 3 days following application.

- **DO NOT** apply more than 0.06 lb. ai per acre per year.

Foliar Application

Follow application instructions as indicated in Bee Hazard Direction for Use.

For applying with ground equipment (min. 10 gal/acre) or air (min. 2 gal/acre). For dense foliage or high pest population, higher use rates in higher volumes (10 gal/acre by air and 20 gal/acre by ground). Higher use rates can be used before crop bloom for increased residual control.

To reduce potential for the development of insecticide resistance, if **Sharda Gamma-Cyhalothrin 14.40% CS** is used as a pre-bloom spray, it is not advisable to use during bloom. Establish appropriate buffer zones and follow guidelines for spray drift as found in the sections of this label entitled **Buffer Zones** and **Spray Drift Advisories.**

SMALL GRAINS

CROP	PESTS	Sharda Gamma-Cyhalothrin 14.40% CS RATE	
		Lb. a.i./A	Fl. oz./A
Barley Buckwheat Oats Rye Wheat Wheat hay Triticale	Army cutworm Cutworm spp.	0.0075 - 0.0125	0.77 - 1.28
	Armyworm Bird cherry-oat aphid [1] Cereal leaf beetle English grain aphid [1] Fall armyworm Flea beetle spp. Grasshopper spp. Hessian fly [4] Orange blossom Wheat midge Russian wheat aphid [1] Stink bug spp. Yellow-striped armyworm	0.01 - 0.015	1.02 - 1.54
	Grass sawfly	0.0125 - 0.015	1.28 - 1.54
	Chinch bug Corn leaf aphid [2] Greenbug [1, 3] Mite spp. [2]	0.015	1.54

	Spring and Winter Wheat: (Colorado, Kansas, Minnesota, Montana, Nebraska, North Dakota, South Dakota, Wyoming) Wheat stem maggot [5]	0.01 – 0.015	1.02 – 1.54
	Wheat Army cutworm For use in Colorado, Kansas, Nebraska, and South Dakota	0.005 – 0.0125	0.51 – 1.28
	Wheat (except Durum) and Barley (selected states) [6] Axial® XL herbicide in tank mixture with **Sharda Gamma-Cyhalothrin 14.40% CS** for grasses and insects		Axial XL® 16.4 + **Sharda Gamma-Cyhalothrin 14.40% CS** at recommended rates
	Wheat (including Durum) (selected states) [7] Discover® NG herbicide in tank mixture with **Sharda Gamma-Cyhalothrin 14.40% CS** for grasses and insects		Discover® NG 12.8 – 16 + **Sharda Gamma-Cyhalothrin 14.40% CS** at recommended rates

[1] Best control is obtained before insects begin to roll leaves. Once wheat has started to boot, **Sharda Gamma-Cyhalothrin 14.40% CS** may provide suppression only. Higher rates and increased coverage will be necessary.
[2] Suppression only.
[3] See resistance statement under **Use Precautions and Restrictions**.
[4] Make applications when adults emerge.
[5] Apply from 5-leaf to flag leaf stages of wheat for suppression/control. Time application to control adult flies and maggots on the leaves and stems before maggots bore into stem. Use higher rates for heavier populations and adverse application conditions. May be tank-mixed with Tilt® or Quilt® fungicides and Axial® XL and Discover® NG herbicides.
[6] Use in Colorado, Delaware, Idaho, Kentucky, Maryland, Minnesota, Montana, North Dakota, South Dakota, Utah, Virginia, Washington, and Wyoming.
[7] Use in Arizona, Idaho, Minnesota, Montana, North Dakota, South Dakota, Utah, Washington, and Wyoming

Precautions and Restrictions

- **DO NOT** apply more than 0.03 lb. active ingredient (0.19 pint) per acre per year.
- **Preharvest Interval**: **DO NOT** apply within 30 days of harvest.

- **DO NOT** allow livestock to graze in treated areas or harvest treated wheat forage as feed for meat or dairy animals within 7 days after last treatment. **DO NOT** feed treated straw to meat or dairy animals within 30 days after the last treatment.

Apply as required by scouting, usually at intervals of 5 days or more. Timing and frequency of applications should be based upon insect populations reaching locally determined economic thresholds.

Foliar Application

Follow application instructions as indicated in Bee Hazard Direction for Use.

Apply with ground or air equipment, using sufficient water and application methods to obtain full coverage of foliage. When applying by air, apply in a minimum of 2 gallons of water per acre.

For chinch bug control, repeat applications at 3- to 5-day intervals if needed. **Sharda Gamma-Cyhalothrin 14.40% CS** may only suppress heavy infestations and/or migrations.

Greenbug is known to have many biotypes. **Sharda Gamma-Cyhalothrin 14.40% CS** may provide suppression only. In this situation, a second application using an alternative chemistry may be needed.

SORGHUM (GRAIN)

PESTS	**Sharda Gamma-Cyhalothrin 14.40% CS RATE**	
	Lb. a.i./A	**Fl. oz./A**
Cutworm spp. Sorghum midge	0.0075 - 0.01	0.77 - 1.02
Armyworm Beet armyworm [1, 3] Corn earworm European corn borer [2]	0.01 - 0.015	1.02 - 1.54

Fall armyworm [1] Flea beetle spp. Grasshopper spp. Lesser cornstalk borer [2] Southwestern corn Borer [2] Stink bug spp. Webworm spp. Yellow-striped armyworm [1]		
For use in Iowa, Kansas, Missouri, and Nebraska: Alfalfa weevil (adult) Hornworm	0.01-0.015	1.02-1.54
Chinch bug Mexican rice borer [2] Rice stalk borer [2] Sugarcane borer [2]	0.015	1.54

[1] Use higher rates for large larvae.
[2] For control before larvae bore into the plant stalk.
[3] See resistance statement under **Use Precautions and Restrictions**.

Precautions and Restrictions

- **DO NOT** apply more than 0.04 lb. active ingredient (0.26 pint) per acre per year.
- **DO NOT** apply more than 0.03 lb. active ingredient (0.19 pint) per acre per year after crop emergence.
- **DO NOT** apply more than 0.01 lb. active ingredient (0.06 pint) per acre per year once crop is in soft dough stage.
- **Preharvest Interval**: **DO NOT** apply within 30 days of harvest.

Apply as required by scouting, usually at intervals of 5 days or more. Timing and frequency of applications should be based upon insect populations reaching locally determined economic thresholds.

Foliar Application

Follow application instructions as indicated in Bee Hazard Direction for Use.

Apply with ground or air equipment, using sufficient water and application methods to obtain full coverage of target location. When applying by air, apply in a minimum of 2 gallons of water per acre.

For sorghum midge control, begin applications when 25% of the sorghum heads have emerged and are in tip bloom. Repeat applications at 5-day intervals if needed.

For chinch bug control, begin applications when bugs migrate from small grains or grass weeds to small sorghum. Direct spray to the base of sorghum plants. Repeat applications at 3- to 5-day intervals if needed. **Sharda Gamma-Cyhalothrin 14.40% CS** may only suppress heavy infestations and/or subsequent migrations.

SOYBEAN

PESTS	**Sharda Gamma-Cyhalothrin 14.40% CS RATE**	
	Lb. a.i./A	**Fl. oz./A**
Bean leaf beetle Cabbage looper Corn earworm Cutworm spp. Green cloverworm Mexican bean beetle Mexican corn rootworm beetle (adult) Northern corn rootworm beetle (adult) Painted lady (thistle) caterpillar Potato leafhopper Saltmarsh caterpillar Southern corn rootworm beetle (adult) Soybean aphid [4] Three-cornered alfalfa hopper Thrips spp. [5] Velvetbean caterpillar Western corn rootworm beetle (adult)	0.0075 - 0.0125	0.77 - 1.28

Woolly bear caterpillar		
For use in Iowa, Kansas, Missouri, and Nebraska: [6] Alfalfa weevil (adult) Hornworm	0.01-0.015	1.02-1.54
Armyworm [1] Blister beetle spp. European corn borer Fall armyworm [1] Grasshopper spp. Japanese beetle (adult) Plant bug spp. Silver-spotted skipper Stink bug spp. Tobacco budworm [3] Webworm spp. Yellow-striped armyworm [1]	0.0125 - 0.015	1.28 - 1.54
Beet armyworm [3] Lesser cornstalk borer [2] Soybean looper [2,3] Spider mite spp. [2]	0.015	1.54

[1] Use higher rates for large larvae.
[2] Suppression only.
[3] See resistance statement under **Use Precautions and Restrictions**.
[4] Use a rate in the lower end of the rate range for early year applications and/or lighter populations.
[5] Does not include western flower thrips.
[6] **DO NOT** apply within 30 days of harvest.

Precautions and Restrictions

- **DO NOT** graze or harvest treated soybean forage, straw, or hay for livestock feed.
- **DO NOT** apply more than 0.03 lb. active ingredient (0.19 pint) per acre per year.
- **Preharvest Interval**: **DO NOT** apply within 45 days of harvest.

Apply as required by scouting, usually at intervals of 5 days or more. Timing and frequency of applications should be based upon insect populations reaching locally determined economic thresholds.

Foliar Application

Follow application instructions as indicated in Bee Hazard Direction for Use.

Apply with ground or air equipment, using sufficient water to obtain full coverage of foliage. When applying by air, apply in a minimum of 2 gallons of water per acre.

For control of adult corn rootworm beetles (*Diabrotica* species) as part of an aerial-applied corn rootworm control program, use a minimum of 1.02 fl. oz. per acre (0.01 lb. active ingredient per acre.

STONE FRUITS

CROP	PESTS	Sharda Gamma-Cyhalothrin 14.40% CS RATE	
		Lb. a.i./A	Fl. oz./A
Apricot Sweet and tart cherry Nectarine Peach Plum Chickasaw plum Damson plum Japanese plum	American plum borer Apple maggot (adult) Black cherry aphid Cherry fruit fly spp. (adult) Codling moth Green fruitworm japanese beetle	0.01 - 0.02	1.02 - 2.05

Plumcot Prune	June beetle Leafhopper spp. Leafroller spp. Oriental fruit moth peachtree borer spp. Peach twig borer Pear sawfly Periodical cicada Plant bug spp. Plum curculio rose chafer Stink bug spp. Tent caterpillar spp. Thrips spp.		

Precautions and Restrictions

- **DO NOT** apply more than 0.1 lb. active ingredient (0.64 pints) per acre per year.
- **DO NOT** apply more than 0.08 lb. active ingredient (0.51 pints) per acre per year post bloom.
- **Preharvest interval**: **DO NOT** apply within 14 days of harvest.

Apply as required by scouting, usually at intervals of 5 days or more. Timing and frequency of applications should be based upon insect populations reaching locally determined economic thresholds and IPM recommendations.

Foliar Application

Follow application instructions as indicated in Bee Hazard Direction for Use.

Apply with ground or air equipment, using sufficient water to obtain full coverage of foliage or target area. When applying by air, apply in a minimum of 5 gallons of water per acre, but use higher volumes as appropriate for thorough coverage.

SUGARCANE

PESTS	Sharda Gamma-Cyhalothrin 14.40% CS RATE	
	Lb. a.i./A	Fl. oz./A
Mexican rice borer [1] Pygmy mole cricket Rice borer [1] Sugarcane aphid [3] Sugarcane beetle (adult) [2] Sugarcane borer [1] Yellow sugarcane aphid [3] West Indian cranefly	0.0125 - 0.02	1.28 - 2.05

[1] For control before larvae bore into the plant stalk.
[2] Suppression only of beetles active above ground.
[3] See resistance statement under **Use Precautions and Restrictions**.

Precautions and Restrictions

- **DO NOT** apply more than 0.08 lb. active ingredient (0.51 pints) per acre per year.
- **Preharvest Interval**: **DO NOT** apply within 21 days of harvest.

Apply as required by scouting, usually at intervals of 7 days or more. Timing and frequency of applications should be based upon insect populations reaching locally determined economic thresholds.

Foliar Application

Follow application instructions as indicated in Bee Hazard Direction for Use.

Apply with ground or air equipment, using sufficient water to obtain full coverage of the foliage or target area. When applying by air, apply in a minimum of 2 gallons of water per acre.

SUNFLOWER

PESTS	Sharda Gamma-Cyhalothrin 14.40% CS RATE	
	Lb. a.i./A	**Fl. oz./A**
Cutworm spp. Sunflower beetle	0.0075 - 0.0125	0.77 - 1.28
Red sunflower seed weevil (North Dakota and South Dakota)	0.0075 - 0.015	0.77 – 1.54
Banded sunflower moth Fall armyworm [1] Flea beetles (selected states)** Grasshopper spp. Head-clipper weevil (adult) Japanese beetle (adult) Leafhopper spp. Meadow spittlebug painted lady (thistle) Caterpillar Seed weevil (adult) Spotted cabbage looper Stem weevil (adult) Stink bug spp. Sunflower maggot (adult) Sunflower moth Woolly bear caterpillar	0.01 - 0.015	1.02 - 1.54
For use in Iowa, Kansas, Missouri, and Nebraska: alfalfa weevil (adult) hornworm	0.01-0.015	1.02-1.54
Beet armyworm [3] Spider mite spp. [2]	0.015	1.54

** Colorado, Kansas, Minnesota, Montana, Nebraska, North Dakota, Oklahoma, South Dakota, and Wyoming.
[1] For control of first and second instars only.
[2] Suppression only.
[3] See resistance statement under **Use Precautions and Restrictions**.

Precautions and Restrictions

- **DO NOT** apply more than 0.06 lb. active ingredient (0.38 pint) per acre per year.
- **DO NOT** apply more than 0.045 lb. active ingredient (0.29 pint) per acre per year after bloom initiation.
- **DO NOT** apply as an ultra-low volume (ULV) spray.
- **Preharvest Interval**: **DO NOT** apply within 45 days of harvest.

Apply as required by scouting, usually at intervals of 5 days or more. Timing and frequency of applications should be based upon insect populations reaching locally determined economic thresholds.

Foliar Application

Follow application instructions as indicated in Bee Hazard Direction for Use.

Apply with ground or air equipment, using sufficient water to obtain full coverage of sunflower heads and/or foliage. When applying by air, apply in a minimum of 2 gallons of water per acre.

TOBACCO (AIR DRIED) – BURLEY AND FLUE-CURED

PESTS	Sharda Gamma-Cyhalothrin 14.40% CS RATE	
	Lb. a.i./A	**Fl. oz./A**
Aphid spp. [2, 3] Armyworm spp. [1] Blister beetle spp. Cabbage looper Corn earworm Cucumber beetle spp. (adult) Cutworm spp. Grasshopper spp. Japanese beetle (adult) Katydid spp. Plant bug spp. [3] Saltmarsh caterpillar	0.0075 - 0.015	0.77 - 1.54

Stinkbug spp. Thrips spp. [2] Tobacco budworm Tobacco flea beetle (adult) Tobacco hornworm Tree cricket spp. Vegetable weevil (adult) Webworm spp.		

[1] For control of first and second instars only.
[2] Suppression only.
[3] See resistance statement under **Use Precautions and Restrictions**.

Precautions and Restrictions

- **DO NOT** apply more than 0.045 lb. active ingredient (0.29 pint) per acre per year.
- **Preharvest Interval**: **DO NOT** apply within 40 days of harvest.

Apply as required by scouting, usually at intervals of 7 days or more. Timing and frequency of applications should be based upon insect populations reaching locally determined economic thresholds.

Foliar Application

Follow application instructions as indicated in Bee Hazard Direction for Use.

Apply with ground or air equipment, using sufficient water to obtain full coverage of the foliage. When applying by air, apply in a minimum of 2 gallons of water per acre.

TREE NUTS

CROPS	PESTS	Sharda Gamma-Cyhalothrin 14.40% CS RATE	
		Lb. a.i./A	Fl. oz./A
Almond Beech nut Brazil nut Butternut Cashew Chestnut Chinquapin Filbert (hazelnut) Hickory nut Macadamia nut (bush nut) black walnut English walnut (Persian) Pistachios	Ants Chinch bug Codling moth Filbertworm Leaf-footed bug Leafroller spp. Navel orangeworm Peach twig borer Plant bug spp. Stink bug spp. Walnut aphid Walnut husk fly spp. (adult)	0.01 - 0.02	1.02 - 2.05
Pecan	Hickory shuckworm Pecan aphid spp. Pecan casebearer spp. Pecan phylloxera spp. Pecan spittlebug Pecan weevil Stinkbug spp.	0.01 - 0.02	1.02 - 2.05

Precautions and Restrictions

- **DO NOT** apply more than 0.08 lb. active ingredient (0.51 pints) per acre per year.
- **DO NOT** apply more than 0.06 lb. active ingredient (0.38 pints) per acre per year post bloom.
- **Preharvest interval**: **DO NOT** apply within 14 days of harvest.

Apply as required by scouting, usually at intervals of 5 days or more. Timing and frequency of applications should be based upon insect populations reaching locally determined economic thresholds.

Foliar Application

Follow application instructions as indicated in Bee Hazard Direction for Use.

Apply with ground or air equipment, using sufficient water to obtain full coverage of foliage or target area. When applying by air, apply in a minimum of 5 gallons of water per acre, but use higher rates as appropriate for thorough coverage.

TUBEROUS AND CORM VEGETABLE (POTATO, YAMS, AND RELATED)

CROP	PESTS	Sharda Gamma-Cyhalothrin 14.40% CS RATE	
		Lb. a.i./A	**Fl. oz./A**
Arracacha Arrowroot Artichoke (Chinese and Jerusalem only) Canna (edible)	Cutworm species Leafhopper species Saltmarsh caterpillar Sweet potato hornworm Woolly bear caterpillar species	0.0075 – 0.0125	0.77 – 1.28
Cassava (bitter and sweet) Chayote (root) Chufa dasheen Ginger Leren Potato Sweet potato Tanier Turmeric Yam (bean and true)	Aphid species [1] Armyworm species [1] Blister beetle species Colorado potato Beetle [1] Corn earworm Cricket species Cucumber beetle species (adult) European corn borer Flea beetle species (adult) Grasshopper species Looper species [1] Lygus bug species [1] Plant bug species Potato psyllid Potato tuberworm Stink bug species Sweet potato leaf beetle (adult) Sweet potato vine borer Thrips species [1, 2] Tortoise beetle species Webworm species (adult) Weevil species (adult)	0.01 – 0.015	1.02 – 1.54
	Leaf miner species [1, 3] Spider mite species [3] Whitefly species [1, 3]	0.015	1.54

[1] See resistance statement under **Use Precautions and Restrictions**.
[2] Does not include Western flower thrips.
[3] Suppression only.

Precautions and Restrictions

- **DO NOT** apply more than 0.06 lb. a.i. (6.15 fl. oz. of product) per acre per year.
- **DO NOT** apply within 7 days of harvest.

Apply as required by scouting, usually at intervals of 7 days or more. Timing and frequency of applications should be based upon insect populations reaching locally determined economic thresholds.

Foliar Application

Follow application instructions as indicated in Bee Hazard Direction for Use.

Apply with ground or air equipment, using sufficient water to obtain full coverage of foliage. When applying by air, apply in a minimum of 2 gallons of water per acre. When applying by ground, apply a minimum of 10 gallons of water per acre.

Use higher application volumes and rates when foliage is dense, pest populations are high, larvae are large, or weather conditions are adverse. Use higher rates for longer residual.

Insects that bore or tunnel into leaves, vines, stems, tubers, or corms must be controlled before penetration. Only exposed insects (larvae or adults) can be controlled with foliar applications.

NON-AGRICULTURAL USES – NON-CROPLAND AREAS ADJACENT TO CROPS (EXCLUDING PUBLIC LAND)

PESTS	Sharda Gamma-Cyhalothrin 14.40% CS RATE	
	Lb. a.i./A	**Fl. oz./A**
Refer to crop-specific use directions	Use rates in crop-specific use directions	Use rates in crop-specific use directions

Precautions and Restrictions

- **DO NOT** exceed 0.1 lb. active ingredient (0.64 pints) per acre per year.
- **DO NOT** graze livestock in treated areas.

Spray non-cropland adjacent to agricultural areas to control migratory insects that may threaten crops.

When treating areas adjacent to crops, refer to the specific use directions for the adjacent crop for target pests, rates, and spray recommendations.

Foliar Application

 Follow application instructions as indicated in Bee Hazard Direction for Use.

Use highest labeled rates for dense/tall foliage, high insect populations and/or larger larval stages. Repeat as necessary to maintain control.

STORAGE AND DISPOSAL

DO NOT contaminate water, food, or feed by storage and disposal.

PESTICIDE STORAGE: Store this product in a cool, dry place in its original container only. **DO NOT** store this product near fertilizers, seeds, or other pesticides. If this product is spilled, sweep up the spillage and dispose pursuant to the below Pesticide Disposal instructions.

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 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.

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] [Refillable container. Refill this container with pesticide only. **DO NOT** reuse 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 refiller. To clean the 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 two minutes. Pour or pump rinsate into application equipment or rinsate collection system Repeat this rinsing procedure two more times.]

[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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