



U.S. ENVIRONMENTAL PROTECTION AGENCY

Office of Pesticide Programs
Registration Division (7505P)
1200 Pennsylvania Ave., N.W.
Washington, D.C. 20460

EPA Reg. Number:

83529-121

Date of Issuance:

1/22/20

NOTICE OF PESTICIDE:

☒ Registration
☐ Reregistration
(under FIFRA, as amended)

Term of Issuance:

Unconditional

Name of Pesticide Product:

Sharda Fluazifop-P-butyl 24.5% EC

Name and Address of Registrant (include ZIP Code):

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

Note: Changes in labeling differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Registration Division prior to use of the label in commerce. In any correspondence on this product always refer to the above EPA registration number.

On the basis of information furnished by the registrant, the above named pesticide is hereby registered under the Federal Insecticide, Fungicide and Rodenticide Act.

Registration is in no way to be construed as an endorsement or recommendation of this product by the Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.

This product is unconditionally registered in accordance with FIFRA section 3(c)(5) provided that you:

1. Submit and/or cite all data required for registration/reregistration/registration review of your product when the Agency requires all registrants of similar products to submit such data.

Signature of Approving Official:

Erik Kraft, Product Manager 24
Fungicide and Herbicide Branch, Registration Division (7505P)

Date:

1/22/20

2. Make the following label changes before you release the product for shipment:

- Revise the EPA Registration Number to read, "EPA Reg. No. 83529-121."

3. Submit one copy of the revised final printed label for the record before you release the product for shipment.

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

If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6. Your release for shipment of the product constitutes acceptance of these conditions. A stamped copy of the label is enclosed for your records. Please also note that the record for this product currently contains the following CSFs:

- Basic CSF dated 09/16/2019

If you have any questions, please contact Francisco Llarena-Arias by phone at 703-347-0459, or via email at llarena-arias.francisco@epa.gov.

Enclosure

[MASTER LABEL]

FLUAZIFOP-P-BUTYL GROUP 1 HERBICIDE

Sharda Fluazifop-P-butyl 24.5% EC

ABN: Accolade

A Post-Emergence Herbicide for Control of Annual and Perennial Grass Weeds

ACTIVE INGREDIENT:**WT. BY %**

Fluazifop-P-butyl: Butyl (R)-2-[4-[[5-(trifluoromethyl)-2-pyridinyl]oxy]phenoxy]propanoate* 24.5%

OTHER INGREDIENTS*: 75.5%**TOTAL:** 100.0%

*Sharda Fluazifop-P-butyl 24.5% EC contains 2 pounds (+) isomer (fluazifop-P-butyl) per gallon.

Contains petroleum distillates.

KEEP OUT OF REACH OF CHILDREN

CAUTION

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle.

(If you do not understand this label, find someone to explain it to you in detail.)

FIRST AID	
IF ON SKIN OR CLOTHING:	<ul style="list-style-type: none"> Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.
IF INHALED:	<ul style="list-style-type: none"> 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:	<ul style="list-style-type: none"> Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.
IF SWALLOWED:	<ul style="list-style-type: none"> 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.
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: Contains petroleum distillates - vomiting may cause aspiration pneumonia.	

[Optional referral statements when booklets and container labels are used:]

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

EPA Reg. No. 83529-XXX

Net Contents: _____ [Gals./L.]

Manufactured for:

Sharda USA LLC7217 Lancaster Pike, Suite A
Hockessin, Delaware 19707**ACCEPTED****01/22/2020**Under the Federal Insecticide, Fungicide
and Rodenticide Act as amended, for the
pesticide registered under
EPA Reg. No.

83529-121

EPA Est. No. XXXXX-XX-XXX

Sale, use, and distribution of this product in Nassau and Suffolk Counties in the State of New York is prohibited.

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION

Harmful if absorbed through skin. Harmful if inhaled. Causes moderate eye irritation. Avoid contact with skin, eyes or clothing. Avoid breathing spray mist or vapor. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Applicators and handlers (other than mixers and loaders) must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves made of barrier laminate, nitrile rubber ≥ 14 mils, neoprene rubber ≥ 14 mils, or Viton ≥ 14 mils
- Shoes plus socks

Mixers and Loaders must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves made of barrier laminate, nitrile rubber ≥ 14 mils, neoprene rubber ≥ 14 mils, or Viton ≥ 14 mils
- Shoes plus socks
- Protective eyewear
- Chemical-resistant apron when mixing or loading

In addition, mixers/loaders supporting aerial applications to crops over 720 acres per day and applicators using a mechanically-pressurized handgun to make a spot treatment on blueberry, lowbush; lingonberry; currant, native; Bushberry Subgroup 13-07B; and Caneberry Subgroup 13-07A must wear a minimum of a NIOSH approved filtering face piece respirator with any N filter (TC-84A). You can also use other NIOSH approved particulate respirators that offer more protection.

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 should:

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

ENVIRONMENTAL HAZARDS

This product is toxic to fish and aquatic invertebrates. Do not apply to areas where runoff into water bodies is expected. This product is toxic to grasses and other monocot plants. Minimize exposure to non-target plants and do not apply when weather conditions favor drift from target areas. Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwaters or rinsate.

Groundwater Advisory

Fluazifop-p-butyl is known to leach through soil into groundwater under certain conditions as a result of label use. This chemical may leach into groundwater if used in areas where soils are permeable, particularly where the water table is shallow.

Surface Water Advisory

This product may impact surface water quality due to runoff of rain water. This is especially true for poorly draining soils and soils with shallow groundwater.

This product is classified as having high potential for reaching surface water via runoff for several months or more after application. A level, well-maintained vegetative buffer strip between areas to which this product is applied and surface water features such as ponds, streams, and springs will reduce the potential loading of fluazifop-p-butyl from runoff water and sediment. Runoff of this product will be reduced by avoiding applications when rainfall is forecasted to occur within 48 hours.

PHYSICAL OR CHEMICAL HAZARDS

Combustible. Do not use or store near heat or open flame.

DIRECTIONS FOR USE

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

This labeling must be in the possession of the user at the time of application.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 12 hours.

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

- Coveralls
- Chemical-resistant gloves made of barrier laminate, nitrile rubber ≥ 14 mils, neoprene rubber ≥ 14 mils, or Viton ≥ 14 mils
- Shoes plus socks

NON-AGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries, or greenhouses.

Do not treat areas while unprotected humans or domestic animals are present in the treatment areas. Do not allow entry into treated areas without protective clothing until sprays have dried.

Written or oral warnings must be given to workers who are expected to be in a treated area or in an area about to be treated with this product. When oral warnings are given, warnings shall be given in a language customarily understood by workers. Oral warnings must be given if there is reason to believe that written warnings cannot be understood by workers. Warnings must include the following information:

- **ATTENTION:** Area treated with **Sharda Fluazifop-P-butyl 24.5% EC** on (date of application). Do not enter without appropriate protective clothing until sprays have dried. In case of accidental exposure to pesticide spray, wash the skin thoroughly with soap and water. Remove contaminated clothing and wash before reuse. If in eyes, flush with plenty of water. If irritation persists, get medical attention.

PRODUCT INFORMATION

Sharda Fluazifop-P-butyl 24.5% EC is an herbicide for post-emergence use on labeled crops, fallow land, listed non-crop areas, and labeled non-bearing crops that provides control of annual and perennial grass weeds. **Sharda Fluazifop-P-butyl 24.5% EC** provides effective control of grass weeds in conventional tillage, minimum tillage, and no-till plantings. **Sharda Fluazifop-P-butyl 24.5% EC** will not control broadleaf weeds or sedges. The product is a systemic herbicide which travels from the treated foliage down into the shoots, roots, rhizomes, stolons, and growing points of treated weeds. **Sharda Fluazifop-P-butyl 24.5% EC** is rainfast 1 hour following application.

For optimum performance, thorough coverage of all weed plant foliage is important, as well as, treating young, actively-growing weeds that are free from stress induced by the following: moisture, temperature, low soil fertility, mechanical means, or chemical injury. Evidence of control is shown when treated grass weeds stop growing soon after application, there is loss of vigor, yellowing and/or reddening, and eventual death of treated grasses. These typical signs are usually seen within 7 days following treatment, but timing may vary based on grass weed species and environmental conditions.

Use Restrictions:

- **DO NOT** cultivate treated grasses 7 days before or 7 days following application of **Sharda Fluazifop-P-butyl 24.5% EC** as this may lead to reduced weed control. Cultivation 14 to 21 days following application of **Sharda Fluazifop-P-butyl 24.5% EC** may help with weed control.
- **DO NOT** plant rotational grass crops including corn, sorghum, and cereals within 60 days of last application of **Sharda Fluazifop-P-butyl 24.5% EC** or crop injury may result.
- Avoid drift to all other crops and non-target areas. Grass crops are highly sensitive to **Sharda Fluazifop-P-butyl 24.5% EC**.
- **DO NOT** make application to grasses that are under stress caused by moisture, temperature, low soil fertility, mechanical or chemical injury.
- **DO NOT** make application to grasses that have tillered, formed seed heads, or outside of listed growth stages.
- **DO NOT** make application of **Sharda Fluazifop-P-butyl 24.5% EC** if rainfall is expected within 1 hour of application.
- **DO NOT** plant rotational crops not listed on the label within 30 days after the last application of **Sharda Fluazifop-P-butyl 24.5% EC**.

FLUAZIFOP-P-BUTYL	GROUP	1	HERBICIDE
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WEED RESISTANCE MANAGEMENT

Sharda Fluazifop-P-butyl 24.5% EC contains the active ingredient fluazifop-p-butyl which is classified as a Group 1 herbicide (aryloxyphenoxy-propionate ('FOPs') chemical family) and is an acetyl CoA Carboxylase (ACCase) inhibitor.

Herbicide resistance is defined as the inherited ability of a plant to survive and reproduce following exposure to a dose of herbicide normally lethal to the wild type. In a plant, resistance may be naturally occurring or induced by such techniques as genetic engineering or selection of variants produced by tissue culture or mutagenesis. Any weed population may contain or develop plants that are naturally resistant to **Sharda Fluazifop-P-butyl 24.5% EC** and other Group 1 herbicides. Weed species with acquired resistance to Group 1 herbicides may eventually dominate the weed population if Group 1 herbicides are used repeatedly in the same field or in successive years as the primary method of control for targeted species. This may result in partial or total loss of control of those species by **Sharda Fluazifop-P-butyl 24.5% EC** or other Group 1 herbicides.

Suspected herbicide-resistant weeds may be identified by these indicators: (1) failure to control a weed species normally controlled by the herbicide at the dose applied, especially if control is achieved on adjacent weeds; (2) a spreading patch of non-controlled plants of a particular weed species; (3) surviving plants mixed with controlled individuals of the same species. If resistance is suspected, prevent weed seed production in the affected area by an alternative herbicide from a different group or by a mechanical method such as hoeing or tillage. Prevent movement of resistant weed seeds to other fields by cleaning harvesting and tillage equipment when moving between fields, and planting clean seed. If a weed pest population continues to progress after treatment with this product, discontinue use of this product, and switch to another management strategy or herbicide with a different mode of action, if available.

Best Management Practices for Resistance Management:

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

Users should scout before and after application. Users should report lack of performance to registrant or their representative.

Contact your local sales representative, extension agent, or certified crop advisors to find out if suspected resistant weeds to these MOA's have been found in your region. Do not assume that each listed weed is being controlled by multiple mechanisms of action. Co-formulated active ingredients are intended to broaden the spectrum of weeds that are controlled. Some weeds may be controlled by only one of the active ingredients in this product.

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.
- For applications prior to the emergence of crops and target weeds, applicators are required to use a coarse or coarser droplet size (ASABE S572.1).
- For all other applications, applicators are required to use a medium or coarser droplet size (ASABE S572.1).
- Do not apply when wind speeds exceed 10 mph at the application site. If the wind speed is greater than 10 mph, the boom length must be 65% or less of the wingspan for fixed wing aircraft and 75% or less of the rotor blade diameter for helicopters. Otherwise, the boom length must be 75% or less of the wingspan for fixed wing aircraft and 90% or less of the rotor blade diameter for helicopters.
- Applicators must use ½ swath displacement upwind at the downwind edge of the field.
- Nozzles must be oriented so the spray is directed toward the back of the aircraft.
- Do not apply during temperature inversions.

Ground Boom Applications:

- User must apply with the nozzle height recommended by the manufacturer, but no more than 3 ft. above the ground or crop canopy unless making a turf, pasture, or rangeland application, in which case applicators may apply with a nozzle height no more than 4 ft. above the ground.
- For applications prior to the emergence of crops and target weeds, applicators are required to use a coarse or coarser droplet size (ASABE S572.1).
- For all other applications, applicators are required to use a medium or coarser droplet size (ASABE S572.1).
- Do not apply when wind speeds exceed 10 miles per hour at the application site.
- Do not apply during temperature inversions.

SPRAY DRIFT ADVISORIES

AVOIDING SPRAY DRIFT IS THE RESPONSIBILITY OF THE APPLICATOR. BE AWARE OF NEARBY NON-TARGET SITES AND ENVIRONMENTAL CONDITIONS. The interaction of many equipment- and weather-related factors determine the potential for spray drift. Make applications only when there is little or no hazard from spray drift. The applicator and grower are responsible for considering all of these factors when making decision to apply this product.

IMPORTANCE OF DROPLET SIZE

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

Controlling Droplet Size – Ground Boom

- **Volume** - Increasing the spray volume so that larger droplets are produced will reduce spray drift. Use the highest practical spray volume for the application. If a greater spray volume is needed, consider using a nozzle with a higher flow rate.
- **Pressure** - Use the lowest spray pressure recommended for the nozzle to produce the target spray volume and droplet size.
- **Number of Nozzles** - Use the minimum number of nozzles that provide uniform coverage
- **Nozzle Orientation** - Orienting nozzles so that the spray is released parallel to the air stream and never downward more than 45° produces larger droplets than other orientations and is the recommended practice. Significant deflection from horizontal will reduce droplet size and increase drift potential.
- **Spray Nozzle** - Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles. Solid stream nozzles oriented straight back produce the largest droplets and the lowest drift, but may reduce coverage and weed control.

Controlling Droplet Size – Aircraft

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

BOOM HEIGHT – Ground Boom

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

RELEASE HEIGHT – Aircraft

Higher release heights increase the potential for spray drift. When applying aerially to crops, do not release spray at a height greater than 10 ft. above the crop canopy, unless a greater application height is necessary for pilot safety.

SHIELDED SPRAYERS

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

TEMPERATURE AND HUMIDITY

When making applications in hot and dry conditions, use larger droplets to reduce effects of evaporation. Droplet evaporation is most severe when conditions are both hot and dry.

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 is lowest between wind speeds of 3 to 10 mph. AVOID APPLICATIONS DURING GUSTY WIND CONDITIONS. Applicators need to be familiar with local wind patterns and terrain that could affect spray drift.

APPLICATION DIRECTIONS**APPLICATION INFORMATION**

Make application to grass weeds that are actively growing using the listed label use rate and the labeled growth stage. In a mixed grass weed population, make application when the first grass weed species reaches the specified growth stage for treatment. Use the

highest labeled use rate for grasses in that population. When irrigation is used as part of normal cropping practice, best results are usually seen when application of **Sharda Fluazifop-P-butyl 24.5% EC** is made within 7 days after irrigation. Optimal perennial grass control can be obtained if rhizomes or stolons are cut up by pre-plant mechanical means (discing, plowing, etc.) to stimulate emergence of grasses.

Sharda Fluazifop-P-butyl 24.5% EC Rate Conversion Table

Fl. Oz. Product per Acre	Lb. A.i. Fluazifop per Acre
4	0.062
6	0.094
8	0.125
10	0.156
12	0.188
16	0.250
24	0.375
30	0.469
32	0.500
48	0.750
72	1.125

TANK MIXING

Applications of **Sharda Fluazifop-P-butyl 24.5% EC** may be made in tank mix combination with other pesticides. See the specific crop sections on this label for tank mixing directions. It is the pesticide user's responsibility to ensure that all products used in tank mix combination 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.

APPLICATION TIMING

Optimal control is seen when application of **Sharda Fluazifop-P-butyl 24.5% EC** is made to grass weeds that are actively growing and before they exceed the listed growth stages. Consult the grass weed tables for specific directions on weed growth stages.

Spray Additives

A spray mixture may only include spray additives cleared for use on growing crops under 40 CFR 180.1001.

Always add one of the following during tank mixing:

- **Crop Oil Concentrate** – For ground applications, a non-phytotoxic crop oil concentrate or once-refined vegetable oil concentrate containing 15 - 20% approved emulsifier, at 0.5 - 1% v/v (0.5 - 1 gal./100 gals.) in the finished spray volume. For aerial applications, a crop oil concentrate (COC) at 1 pint per acre.
- **Nonionic Surfactant** – for ground application, a nonionic surfactant containing at least 75% surface-active agent, at 0.25 - 0.5% v/v (1 - 2 qts./100 gals.) in the finished spray volume. For aerial application, add surfactant at 1 pint per acre.
- **Other Adjuvants** – Other adjuvants than those listed above may be used if the product meets the below criteria:
 1. Contains only EPA exempt ingredients.
 2. Does not cause phytotoxicity to the target crop.
 3. Is compatible in the tank mixture.
 4. Is supported for use locally with **Sharda Fluazifop-P-butyl 24.5% EC** on the specified crop with proven field trials and/or through university and Cooperative Extension guidance.

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.

Soybeans only: In addition to crop oil concentrate or nonionic surfactant, a water soluble liquid nitrogen fertilizer (28% or similar) can be added to the mixture at a rate of 1 gal. per acre. **DO NOT** substitute the liquid nitrogen fertilizer for crop oil concentrate or nonionic surfactant in the spray mixture.

Water soluble diammonium phosphate (aqueous ammonium polyphosphate) frequently sold as 10-34-0, can be added to the mixture at a rate of 2 pts. per acre. **DO NOT** substitute diammonium phosphate for crop oil concentrate or nonionic surfactant in the mixture.

Mix **Sharda Fluazifop-P-butyl 24.5% EC** and crop oil concentrate or nonionic surfactant with water according to the amounts shown in Table 1. Spray to obtain complete coverage, but **DO NOT** spray to runoff. If necessary, repeat application can be made according to label directions. Refer to the **CROP SPECIFIC RESTRICTIONS** section for maximum yearly application rate.

Table 1. Spot Spray Mixing Directions

To Make This Spray Volume	Add These Amounts			
	Sharda Fluazifop-P-butyl 24.5% EC	Crop Vegetable Oil Concentrate	or	Nonionic Surfactant
1 gal.	0.75 fl. oz.	1.5 fl. oz.	or	0.5 fl. oz.
10 gals.	6.5 fl. oz.	13 fl. oz.	or	3 fl. oz.
25 gals.	0.5 qt.	1 qt.	or	0.5 pt.
50 gals.	1 qt.	2 qts.	or	1 pt.

Mixing Order

Use clean water for spray mixture preparation. **DO NOT** use water that contains rinsate from a previous spray, even at low concentrations, this may reduce grass weed control.

1. Fill the spray tank with $\frac{1}{2}$ of the required of water
2. Start and maintain agitation through addition of all ingredients
3. Add dry pesticide formulations.
4. Next, add **Sharda Fluazifop-P-butyl 24.5% EC** and then other EC formulations.
5. Next, add other liquid pesticide formulations.
6. Then, add spray adjuvant and fertilizer (if used).
7. Finally, add the remaining water.
8. Continue agitation throughout the spray application.

Use Precautions:

Tank mixtures of **Sharda Fluazifop-P-butyl 24.5% EC** with pesticides, liquid fertilizers or additives not listed on this label may result in adverse crop injury and/or grass control that is not satisfactory.

Sequential applications with herbicides, except as specified on this label, within 5 days prior to or after **Sharda Fluazifop-P-butyl 24.5% EC** treatment may result in adverse crop injury and/or grass control that is not satisfactory.

Thoroughly clean spray tank with clean water and a commercial tank cleaner prior to and after each use.

GROUND APPLICATION

Use sufficient spray volume to ensure full coverage of target weeds. Make application in 5 - 40 gals. per acre of spray. Use a minimum of 20 gals. per acre for instances where weed foliage is dense to ensure complete coverage.

BAND APPLICATIONS

Complete weed coverage is important for control. Optimal coverage is obtained with a minimum of 2 nozzles, 1 directed to each side of the planted row. **DO NOT** make application of this product with a single nozzle directed over the top of the row. Cultivation of untreated areas may be necessary after band applications.

To reduce dust in the spray area, when making band applications and cultivating in the same operation, position nozzles ahead of the cultivation equipment. Dust can reduce weed coverage, and thus reduce weed control.

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

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

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

DO NOT make band applications to perennial grasses as reinfestation of the treated band from the untreated middle may occur.

AERIAL APPLICATION

Use sufficient spray volume to ensure complete coverage of target grasses. Make application in a minimum of 5 gals. per acre. Use a minimum of 10 gals. per acre for instances where weed foliage is dense to ensure complete coverage. Add 1 pt. per acre of crop oil concentrate or nonionic surfactant in the spray mixture.

CHEMIGATION

Sprinkler Irrigation Application: Make application of **Sharda Fluazifop-P-butyl 24.5% EC** at labeled rates and timing directed in this label. **DO NOT** use adjuvants as labeled in conventional applications. Consult your local Cooperative Extension Office or other local experts for directions on adjuvant or diluent types, rates and mixing instructions for the appropriate directions. These directions need to be shown, through university, Cooperative Extension or local expert field trials, to be effective and safe with **Sharda Fluazifop-P-butyl 24.5% EC** when applied by chemigation.

Check the irrigation system to ensure uniform application of water to all areas. Thorough coverage of foliage is required for good control. Maintain agitation in the spray tank before and during the entire application.

Make application of **Sharda Fluazifop-P-butyl 24.5% EC** by injecting the listed use rate into the irrigation system using a metering device for a constant flow and to distribute the product to the target areas in 0.1 - 0.2 acre-inch of water. Use the least amount of water required for proper distribution and coverage. Inject the product into the main irrigation line ahead of any right angle turn in the line to ensure adequate dispersion or mixing in the irrigation water. Flush the entire irrigation and injection system with clean water after the application is completed and then stop the system.

Additionally, if application is made during a normal irrigation set of a stationary sprinkler, inject the listed use rate of **Sharda Fluazifop-P-butyl 24.5% EC** for the area covered into the system only during the end of the irrigation set for sufficient time to provide adequate coverage and product distribution.

Use Precautions – Sprinkler Irrigation Application

- Non-uniform distribution of treated water can lead to adverse crop response, lack of efficacy, or illegal residues in the crop.
- Questions about calibration should be directed to local Cooperative Extension Specialists, equipment manufacturers or other experts.

- A person knowledgeable of the chemigation system and responsible for its operation or under the supervision of the responsible person, must shut the system down and make necessary adjustments if the need arises.

Use Restrictions - Sprinkler Irrigation Application

- **DO NOT** apply this product through any other type of irrigation system.
- **DO NOT** apply **Sharda Fluazifop-P-butyl 24.5% EC** 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.
- The irrigation 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 back-flow.
- The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
- The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
- The irrigation system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
- The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when pressure decreases to the point where pesticide distribution is adversely affected.
- Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and are capable of being fitted with a system interlock.
- Any alternatives to the above required safety devices must conform to the list of EPA approved alternative devices.
- **DO NOT** apply when wind speed favors drift beyond the area intended for treatment or non-uniform distribution of treated water.

CROP SPECIFIC RESTRICTIONS

Crop	Use Restrictions
Apricots, Cherries, Nectarines, Peaches, Plums, and Prunes	<ul style="list-style-type: none"> • DO NOT exceed a total of 72 fl. oz. of Sharda Fluazifop-P-butyl 24.5% EC per acre (1.125 lbs. a.i. fluazifop/A) per year. • DO NOT exceed 24 fl. oz. of Sharda Fluazifop-P-butyl 24.5% EC per acre (0.375 lb. a.i. fluazifop/A) per application. • DO NOT exceed 3 applications per year. • Retreatment Interval: minimum 21 days between applications. • Pre-Harvest Interval (PHI): 14 days • DO NOT graze animals in treated areas.
Asparagus (All states except California and Arizona)	<ul style="list-style-type: none"> • DO NOT exceed a total of 48 fl. oz. of Sharda Fluazifop-P-butyl 24.5% EC per acre (0.750 lb. a.i. fluazifop/A) per year to bearing asparagus. • DO NOT exceed 24 fl. oz. of Sharda Fluazifop-P-butyl 24.5% EC per acre (0.375 lb. a.i. fluazifop/A) per application. • DO NOT exceed 2 applications per year. • Retreatment Interval: minimum of 14 days between applications. • Pre-Harvest Interval (PHI): 1 day
Asparagus (California only)	<ul style="list-style-type: none"> • DO NOT exceed a total of 24 fl. oz. of Sharda Fluazifop-P-butyl 24.5% EC per acre (0.375 lb. a.i. fluazifop/A) per year to bearing asparagus. • DO NOT exceed 12 fl. oz. of Sharda Fluazifop-P-butyl 24.5% EC per acre (0.188 lb. a.i. fluazifop/A) per application. • DO NOT exceed 2 applications per year. • Retreatment Interval: minimum of 21 days between applications. • Pre-Harvest Interval (PHI): 1 day
Bananas and Plantains	<ul style="list-style-type: none"> • DO NOT exceed a total of 72 fl. oz. of Sharda Fluazifop-P-butyl 24.5% EC per acre (1.125 lbs. a.i. fluazifop/A) per year. • DO NOT exceed 24 fl. oz. of Sharda Fluazifop-P-butyl 24.5% EC per acre (0.375 lb. a.i. fluazifop/A) per application. • DO NOT exceed 3 applications per year. • Retreatment Interval: minimum of 30 days between applications. • Pre-Harvest Interval (PHI): 0 days
Blueberry, Lowbush As well as lingonberry; currant, native	<ul style="list-style-type: none"> • DO NOT exceed a total of 48 fl. oz. of Sharda Fluazifop-P-butyl 24.5% EC per acre (0.750 lb. a.i. fluazifop/A) per year. • DO NOT exceed 24 fl. oz. of Sharda Fluazifop-P-butyl 24.5% EC per acre (0.375 lb. a.i. fluazifop/A) per application. • DO NOT exceed 2 applications per year. • Retreatment Interval: minimum of 14 days between applications. • Pre-Harvest Interval (PHI): Make application during the non-bearing year or during the year of establishment with the last application no later than 10 months before harvest.
Bushberry Subgroup 13-07B As well as Aronia berry; blueberry, highbush; buffalo currant; Chilean guava; cranberry,	<ul style="list-style-type: none"> • DO NOT exceed a total of 48 fl. oz. of Sharda Fluazifop-P-butyl 24.5% EC per acre (0.750 lb. a.i. fluazifop/A) per year.

highbush; currant, black; currant, red; elderberry; European barberry; gooseberry; honeysuckle, edible; huckleberry; jostaberry; Juneberry (Saskatoon berry); salal; sea buckthorn; and cultivars, varieties, and/or hybrids of these	<ul style="list-style-type: none"> • DO NOT exceed 24 fl. oz. of Sharda Fluazifop-P-butyl 24.5% EC per acre (0.375 lb. a.i. fluazifop/A) per application. • DO NOT exceed 2 applications per year. • Retreatment Interval: minimum of 14 days between applications. • Pre-Harvest Interval (PHI): 1 day
Caneberry Subgroup 13-07A Blackberry; loganberry; raspberry, black and red; wild raspberry; cultivars, varieties, and/or hybrids of these	<ul style="list-style-type: none"> • DO NOT exceed a total of 48 fl. oz. of Sharda Fluazifop-P-butyl 24.5% EC per acre (0.750 lb. a.i. fluazifop/A) per year. • DO NOT exceed 24 fl. oz. of Sharda Fluazifop-P-butyl 24.5% EC per acre (0.375 lb. a.i. fluazifop/A) per application. • DO NOT exceed 2 applications per year. • Retreatment Interval: minimum of 14 days between applications. • Pre-Harvest Interval (PHI): 1 day
Carrots Including seed carrots	<ul style="list-style-type: none"> • DO NOT exceed a total of 48 fl. oz. of Sharda Fluazifop-P-butyl 24.5% EC per acre (0.750 lb. a.i. fluazifop/A) per year. • DO NOT exceed 24 fl. oz. of Sharda Fluazifop-P-butyl 24.5% EC per acre (0.375 lb. a.i. fluazifop/A) per application. • DO NOT exceed 2 applications per year. • Retreatment Interval: minimum of 14 days between applications. • Pre-Harvest Interval (PHI): 45 days
Citrus Fruits Group 10 Australian desert lime; Australian finger-lime; Australian round lime; Brown River finger lime; calamondin; citron; citrus hybrids; grapefruit; Japanese summer grapefruit; kumquat; lemon; lime; Mediterranean mandarin; mount white lime; New Guinea wild lime; orange, sour; orange, sweet; pummelo; Russell River lime; satsuma mandarin; sweet lime; tachibana orange; Tahiti lime; tangelo; tangerine (mandarin); tangor; trifoliate orange; uniq fruit; cultivars, varieties, and/or hybrids of these	<ul style="list-style-type: none"> • DO NOT exceed a total of 72 fl. oz. of Sharda Fluazifop-P-butyl 24.5% EC per acre (1.125 lbs. a.i. fluazifop/A) per year. • DO NOT exceed 24 fl. oz. of Sharda Fluazifop-P-butyl 24.5% EC per acre (0.375 lb. a.i. fluazifop/A) per application. • DO NOT exceed 3 applications per year. • Retreatment Interval: minimum of 21 days between applications. • Pre-Harvest Interval (PHI): 14 days
Coffee (Hawaii only)	<ul style="list-style-type: none"> • DO NOT exceed a total of 48 fl. oz. of Sharda Fluazifop-P-butyl 24.5% EC per acre (0.750 lb. a.i. fluazifop/A) per year. • DO NOT exceed 24 fl. oz. of Sharda Fluazifop-P-butyl 24.5% EC per acre (0.375 lb. a.i. fluazifop/A) per application. • DO NOT exceed 2 applications per year. • Retreatment Interval: minimum of 14 days between applications. • Pre-Harvest Interval (PHI): 1 day
Cotton	<ul style="list-style-type: none"> • DO NOT exceed a total of 48 fl. oz. of Sharda Fluazifop-P-butyl 24.5% EC per acre (0.750 lb. a.i. fluazifop/A) per year. • DO NOT exceed 24 fl. oz. of Sharda Fluazifop-P-butyl 24.5% EC per acre (0.375 lb. a.i. fluazifop/A) per application. • DO NOT exceed 2 applications per year. • Retreatment Interval: minimum of 14 days between applications. • DO NOT apply to cotton after boll set. • Pre-Harvest Interval (PHI): 90 days • DO NOT graze or harvest for forage or hay.
Dry Beans	<ul style="list-style-type: none"> • DO NOT exceed a total of 48 fl. oz. of Sharda Fluazifop-P-butyl 24.5% EC per acre (0.750 lb. a.i. fluazifop/A) per year. • DO NOT exceed 24 fl. oz. of Sharda Fluazifop-P-butyl 24.5% EC per acre (0.375 lb. a.i. fluazifop/A) per application. • DO NOT exceed 2 applications per year. • Retreatment Interval: minimum of 14 days between applications. • Pre-Harvest Interval (PHI): 60 days • DO NOT apply to cowpeas.
Fine Fescue Grasses Grown For Seed (Idaho, Oregon, and Washington only)	<ul style="list-style-type: none"> • DO NOT exceed a total of 48 fl. oz. of Sharda Fluazifop-P-butyl 24.5% EC per acre (0.750 lb. a.i. fluazifop/A) per year. • DO NOT exceed 16 fl. oz. of Sharda Fluazifop-P-butyl 24.5% EC per acre (0.250 lb. a.i. fluazifop/A) per application. • DO NOT exceed 3 applications per year. • Retreatment Interval: minimum of 14 days between applications. • Pre-Harvest Interval (PHI): 14 days
Lettuce, Leaf and Head	<ul style="list-style-type: none"> • DO NOT exceed a total of 48 fl. oz. of Sharda Fluazifop-P-butyl 24.5% EC per acre (0.750 lb. a.i. fluazifop/A) per year. • DO NOT exceed 24 fl. oz. of Sharda Fluazifop-P-butyl 24.5% EC per acre (0.375 lb. a.i. fluazifop/A) per application. • DO NOT exceed 2 applications per year.

	<ul style="list-style-type: none"> Retreatment Interval: minimum of 14 days between applications. Pre-Harvest Interval (PHI): 14 days
Macadamia Nuts	<ul style="list-style-type: none"> DO NOT exceed a total of 48 fl. oz. of Sharda Fluazifop-P-butyl 24.5% EC per acre (0.750 lb. a.i. fluazifop/A) per year. DO NOT exceed 24 fl. oz. of Sharda Fluazifop-P-butyl 24.5% EC per acre (0.375 lb. a.i. fluazifop/A) per application. DO NOT exceed 2 applications per year. Retreatment Interval: minimum of 21 days between applications. Pre-Harvest Interval (PHI): 1 day DO NOT graze animals in treated area or feed cover crops of treated macadamia groves to livestock.
Onion, Bulb Subgroup 3-07A Daylily, bulb; fritillaria, bulb; garlic, bulb; garlic, great-headed, bulb; garlic, serpent, bulb; lily, bulb; onion, bulb; onion, Chinese, bulb; onion, pearl; onion, potato, bulb; shallot, bulb; cultivars, varieties, and/or hybrids of these	<ul style="list-style-type: none"> DO NOT exceed a total of 48 fl. oz. of Sharda Fluazifop-P-butyl 24.5% EC per acre (0.750 lb. a.i. fluazifop/A) per year. DO NOT exceed 24 fl. oz. of Sharda Fluazifop-P-butyl 24.5% EC per acre (0.375 lb. a.i. fluazifop/A) per application. DO NOT exceed 2 applications per year. Retreatment Interval: minimum of 14 days between applications. Pre-Harvest Interval (PHI): 45 days
Onion, Green	<ul style="list-style-type: none"> DO NOT exceed a total of 48 fl. oz. of Sharda Fluazifop-P-butyl 24.5% EC per acre (0.750 lb. a.i. fluazifop/A) per year. DO NOT exceed 24 fl. oz. of Sharda Fluazifop-P-butyl 24.5% EC per acre (0.375 lb. a.i. fluazifop/A) per application. DO NOT exceed 2 applications per year. Retreatment Interval: minimum of 14 days between applications. Pre-Harvest Interval (PHI): 14 days
Peanuts	<ul style="list-style-type: none"> DO NOT exceed a total of 48 fl. oz. of Sharda Fluazifop-P-butyl 24.5% EC per acre (0.750 lb. a.i. fluazifop/A) per year. DO NOT exceed 24 fl. oz. of Sharda Fluazifop-P-butyl 24.5% EC per acre (0.375 lb. a.i. fluazifop/A) per application. DO NOT exceed 2 applications per year. Retreatment Interval: minimum of 14 days between applications. DO NOT feed green immature growing plants to livestock or harvest for livestock feed. Pre-Harvest Interval (PHI): 40 days
Pecans	<ul style="list-style-type: none"> DO NOT exceed a total of 72 fl. oz. of Sharda Fluazifop-P-butyl 24.5% EC per acre (1.125 lbs. a.i. fluazifop/A) per year. DO NOT exceed 24 fl. oz. of Sharda Fluazifop-P-butyl 24.5% EC per acre (0.375 lb. a.i. fluazifop/A) per application. DO NOT exceed 3 applications per year. Retreatment Interval: minimum of 14 days between applications. Pre-Harvest Interval (PHI): 30 days DO NOT graze animals in treated areas.
Rhubarb	<ul style="list-style-type: none"> DO NOT exceed a total of 32 fl. oz. of Sharda Fluazifop-P-butyl 24.5% EC per acre (0.500 lb. a.i. fluazifop/A) per year. DO NOT exceed 16 fl. oz. of Sharda Fluazifop-P-butyl 24.5% EC per acre (0.250 lb. a.i. fluazifop/A) per application. DO NOT exceed 2 applications per year. Retreatment Interval: minimum of 14 days between applications. Pre-Harvest Interval (PHI): 14 days
Small Fruit Vine Climbing Subgroup 13-07F (Except Fuzzy Kiwifruit) Amur river grape; gooseberry; grape; kiwifruit, hardy; maypop; schisandra berry; cultivars, varieties, and/or hybrids of these	<ul style="list-style-type: none"> DO NOT exceed a total of 72 fl. oz. of Sharda Fluazifop-P-butyl 24.5% EC per acre (1.125 lbs. a.i. fluazifop/A) per year. DO NOT exceed 24 fl. oz. of Sharda Fluazifop-P-butyl 24.5% EC per acre (0.375 lb. a.i. fluazifop/A) per application. DO NOT exceed 3 applications per year. Retreatment Interval: minimum of 14 days between applications. Pre-Harvest Interval (PHI): 50 days
Soybeans	<ul style="list-style-type: none"> DO NOT exceed a total of 30 fl. oz. of Sharda Fluazifop-P-butyl 24.5% EC per acre (0.469 lb. a.i. fluazifop/A) per year. DO NOT exceed 24 fl. oz. of Sharda Fluazifop-P-butyl 24.5% EC per acre (0.375 lb. a.i. fluazifop/A) per application. DO NOT exceed 24 fl. oz. of Sharda Fluazifop-P-butyl 24.5% EC per acre (0.375 lb. a.i. fluazifop/A) pre-bloom (up to V5 growth stage). DO NOT exceed 6 fl. oz. of Sharda Fluazifop-P-butyl 24.5% EC per acre (0.094 lb. a.i. fluazifop/A) at or after bloom (R1 growth stage or later). DO NOT exceed 3 applications per year. Retreatment Interval: minimum of 14 days between applications. Pre-Harvest Interval (PHI): 60 days

Strawberry	<ul style="list-style-type: none"> • DO NOT exceed a total of 16 fl. oz. of Sharda Fluazifop-P-butyl 24.5% EC per acre (0.250 lb. a.i. fluazifop/A) per year. • DO NOT exceed 16 fl. oz. of Sharda Fluazifop-P-butyl 24.5% EC per acre (0.250 lb. a.i. fluazifop/A) per application. • DO NOT exceed 1 application per year. • Pre-Harvest Interval (PHI): 14 days
Sugar Beets	<ul style="list-style-type: none"> • DO NOT exceed a total of 48 fl. oz. of Sharda Fluazifop-P-butyl 24.5% EC per acre (0.750 lb. a.i. fluazifop/A) per year. • DO NOT exceed 24 fl. oz. of Sharda Fluazifop-P-butyl 24.5% EC per acre (0.375 lb. a.i. fluazifop/A) per application. • DO NOT exceed 2 applications per year. • Retreatment Interval: minimum of 14 days between applications. • Pre-Harvest Interval (PHI): 90 days
Tabasco Peppers (Louisiana only)	<ul style="list-style-type: none"> • DO NOT exceed a total of 48 fl. oz. of Sharda Fluazifop-P-butyl 24.5% EC per acre (0.750 lb. a.i. fluazifop/A) per year. • DO NOT exceed 24 fl. oz. of Sharda Fluazifop-P-butyl 24.5% EC per acre (0.375 lb. a.i. fluazifop/A) per application. • DO NOT exceed 2 applications per year. • Retreatment Interval: minimum of 14 days between applications. • Pre-Harvest Interval (PHI): 45 days
Tuberous and Corm Vegetables Subgroup 1D (Except Potato) Arracacha; arrowroot; artichoke, Chinese; artichoke, Jerusalem; canna, edible; cassava, bitter and sweet; chayote (root); chufa; dasheen (taro); ginger; leren; sweet potato; tanier; turmeric; yam bean; and yam, true	<ul style="list-style-type: none"> • DO NOT exceed a total of 48 fl. oz. of Sharda Fluazifop-P-butyl 24.5% EC per acre (0.750 lb. a.i. fluazifop/A) per year. • DO NOT exceed 12 fl. oz. of Sharda Fluazifop-P-butyl 24.5% EC per acre (0.188 lb. a.i. fluazifop/A) per application. • DO NOT exceed 4 applications per year. • Retreatment Interval: minimum of 14 days between applications. • Pre-Harvest Interval (PHI): 14 days

ANNUAL AND PERENNIAL GRASS WEED CONTROL FOR REGISTERED CROPS

REGIONAL USE MAP



Region 1 – Includes the following states or portions of states where application of **Sharda Fluazifop-P-butyl 24.5% EC** can be made at listed use rates: Alabama, Alaska, Arkansas, California (Northern; see regional map), Connecticut, Delaware, Florida, Georgia, Idaho, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maine, Maryland, Massachusetts, Michigan, Minnesota, Mississippi, Missouri, Montana, Nebraska, Nevada (Northern; see regional map), New Hampshire, New Jersey, New York, North Carolina, North Dakota, Ohio, Oklahoma (east of Interstate 35), Oregon, Pennsylvania, Puerto Rico, Rhode Island, South Carolina, South Dakota, Tennessee, Texas (east of Interstate 35), Utah (Northern; see regional map), Vermont, Virginia, Washington, West Virginia, Wisconsin, and Wyoming

Region 2 – Includes the following states or portions of states where application of **Sharda Fluazifop-P-butyl 24.5% EC** can be made at listed use rates: Arizona, California (Southern; see regional map), Colorado, Hawaii, Oklahoma (west of Interstate 35), Nevada (Southern; see regional map), New Mexico, Utah (Southern; see regional map), and Texas (west of Interstate 35)

Table 2. Sharda Fluazifop-P-butyl 24.5% EC Annual Grass Control Use Rate Directions for All Crops Except Coffee - Region 1

Annual Grass Species*	Height (Inches)	Number of Leaves Not to Exceed	Sharda Fluazifop-P-butyl 24.5% EC Rate	Sharda Fluazifop-P-butyl 24.5% EC Reduced Rate**
Barnyardgrass	2 - 3	3	12 fl. oz./A	10 fl. oz./A
Brome, Downy ¹	2 - 6	4	8 fl. oz./A	
Crabgrass				
Large	1 - 2	4	12 fl. oz./A	10 fl. oz./A
Smooth	1 - 2	4	12 fl. oz./A	10 fl. oz./A
Southern	1 - 2	4	12 fl. oz./A	10 fl. oz./A
Tropical	1 - 2	4	12 fl. oz./A	10 fl. oz./A
Cupgrass, Woolly	2 - 4	6	12 fl. oz./A	10 fl. oz./A
Foxtails				
Giant	2 - 6	4	12 fl. oz./A	10 fl. oz./A
Green	2 - 4	4	12 fl. oz./A	10 fl. oz./A
Yellow	2 - 4	4	12 fl. oz./A	10 fl. oz./A
Goosegrass	2 - 4	6	8 fl. oz./A	
Itchgrass	4 - 24	6	8 fl. oz./A	
Johnsongrass, Seedling	2 - 8	4	6 fl. oz./A	
Junglerice	2 - 3	3	12 fl. oz./A	10 fl. oz./A
Panicum				
Fall	2 - 6	6	12 fl. oz./A	10 fl. oz./A
Texas	2 - 8	8	12 fl. oz./A	10 fl. oz./A
Proso Millet, Wild	4 - 8	6	6 fl. oz./A ⁴	
Rice, Red	0.5 - 1	2	16 fl. oz./A	10 fl. oz./A ²
Ryegrass, Italian	2 - 4	4	12 fl. oz./A	10 fl. oz./A
Sandbur				
Field	2 - 4	4	12 fl. oz./A	10 fl. oz./A
Southern	2 - 6	6	12 fl. oz./A	10 fl. oz./A
Shattercane	6 - 12	8	6 fl. oz./A ⁴	
Signalgrass, Broadleaf	2 - 4	5	12 fl. oz./A	10 fl. oz./A
Sorghum Alnum	6 - 12	8	8 fl. oz./A	
Volunteer Cereals				
Volunteer Barley	2 - 6	6	8 fl. oz./A	
Volunteer Corn ^{6,7}	12 - 24	10	6 fl. oz./A ⁴	4 fl. oz./A ^{3,5}
Volunteer Milo	6 - 12	4	6 fl. oz./A ⁴	
Volunteer Oats	2 - 6	6	8 fl. oz./A	
Volunteer Rye	2 - 6	6	8 fl. oz./A	
Volunteer Wheat	2 - 6	6	8 fl. oz./A	
Wild Oats	2 - 6	6	8 fl. oz./A	
Witchgrass	2 - 4	6	12 fl. oz./A	10 fl. oz./A

*Retreatment at the directed rate may be necessary to control later germinating grasses or if regrowth occurs.

** Reduced Rates – Rates of **Sharda Fluazifop-P-butyl 24.5% EC** per acre can be reduced to the rates listed for species indicated when following conditions are met:

- Soil and humidity conditions are favorable, typically a few days after rainfall or irrigation. Avoid extreme air temperatures.
- Application at earliest growth stages indicated on rate tables.
- Application is made in highly competitive crop stands (ex. narrow row or drilled soybeans), or where cultivation is planned.
- Application when weed density is light to moderate
- Application with 1% v/v crop oil concentrate only.
- Application of **Sharda Fluazifop-P-butyl 24.5% EC** alone, without tank mixtures with other pesticides.

¹Not registered for use in California on this species.

²Two applications of **Sharda Fluazifop-P-butyl 24.5% EC** at 10 fl. oz. per acre (0.156 lb. a.i. fluazifop/A) may be necessary to achieve satisfactory control.

³A second application of **Sharda Fluazifop-P-butyl 24.5% EC** at 4 fl. oz. per acre (0.062 lb. a.i. fluazifop/A) may be needed if infestations are heavy or to control later germinating plants including those emerging from buried ears.

⁴Apply 6 - 8 fl. oz. of **Sharda Fluazifop-P-butyl 24.5% EC** per acre (0.095 - 0.125 lb. a.i. fluazifop/A) when applying in tank mixture with broadleaf herbicides in soybeans. Use the 8 fl. oz. per acre (0.125 lb. a.i. fluazifop/A) rate under conditions of low soil moisture or low humidity or when weeds have reached the maximum listed growth stage.

⁵Use 4 fl. oz. of **Sharda Fluazifop-P-butyl 24.5% EC** per acre (0.062 lb. a.i. fluazifop/A) when tank mixing with imazethapyr. Apply to actively growing plants less than 18" tall.

⁶**Sharda Fluazifop-P-butyl 24.5% EC** will provide suppression of sethoxydim-resistant volunteer corn.

⁷Includes control of glyphosate-resistant; glufosinate-resistant; and imazethapyr-resistant varieties of volunteer corn.

Table 3. Sharda Fluazifop-P-butyl 24.5% EC Annual Grass Control Use Rate Directions for All Crops Except Coffee - Region 2

Annual Grass Species*	Height (Inches)	Number of Leaves Not to Exceed	Sharda Fluazifop-P-butyl 24.5% EC Rate
Barnyardgrass ¹	1 - 2	3	12 fl. oz./A
Canarygrass, Littleseed ²	2 - 4	4	12 fl. oz./A
Crabgrass,			
Large ²	1 - 2	3	12 fl. oz./A
Smooth ^{2,3}	1 - 2	4	12 fl. oz./A
Johnsongrass, Seedling	2 - 4	3	8 fl. oz./A
Junglerice ²	2 - 3	3	12 fl. oz./A
Panicums			
Fall ^{2,3}	2 - 6	6	12 fl. oz./A
Texas ^{2,3}	8	8	12 fl. oz./A
Rabbitfootgrass ²	2 - 4	4	12 fl. oz./A
Volunteer Cereals			
Volunteer Barley	2 - 4	3	12 fl. oz./A
Volunteer Corn ^{2,4,5}	12 - 18	6	12 fl. oz./A
Volunteer Milo	2 - 4	4	12 fl. oz./A
Volunteer Oats	2 - 4	3	12 fl. oz./A
Volunteer Wheat	2 - 4	3	12 fl. oz./A
Wild Oats ³	2 - 4	4	12 fl. oz./A

*Retreatment at the listed rate may be necessary to control late germinating grasses or if regrowth occurs.

¹California and Arizona: Use 24 fl. oz. of **Sharda Fluazifop-P-butyl 24.5% EC** per acre (0.375 lb. a.i. fluazifop/A).

²Not registered for use in Arizona and California for control of this species.

³For control in Colorado, Oklahoma, and Texas.

⁴**Sharda Fluazifop-P-butyl 24.5% EC** provides suppression of sethoxydim-resistant volunteer corn.

⁵Includes control of glyphosate-resistant; glufosinate-resistant; and imazethapyr-resistant varieties of volunteer corn.

Table 4. Sharda Fluazifop-P-butyl 24.5% EC Perennial Grass Control Use Rate Directions for All Crops Except Coffee - Region 1

Perennial Grass Species	Application Number	Height (Inches)	Sharda Fluazifop-P-butyl 24.5% EC Rate	Sharda Fluazifop-P-butyl 24.5% EC Rate*
Bermudagrass ^{1,5}	1	4 - 8 (runner length)	12 fl. oz./A	16 - 24 fl. oz./A
	2	4 - 8	8 fl. oz./A	12 - 24 fl. oz./A
Johnsongrass, Rhizome ^{3,5}	1	8 - 18	12 fl. oz./A	16 - 24 fl. oz./A
	2	6 - 12	8 fl. oz./A	12 - 24 fl. oz./A
Muhly, Wirestem ^{4,5}	1 & 2	4 - 12	12 fl. oz./A	16 - 24 fl. oz./A
Quackgrass ^{2,5}	1	6 - 10	12 fl. oz./A	16 - 24 fl. oz./A
	2	up to 10	8 fl. oz./A	12 - 24 fl. oz./A

*Use this specified rate of **Sharda Fluazifop-P-butyl 24.5% EC** under heavy grass weed pressure and/or when weeds are at maximum height. **DO NOT** exceed the maximum labeled rate for any individual crop as specified in the **CROP SPECIFIC RESTRICTIONS**.

¹A second application may be needed if regrowth occurs (usually about 4 weeks after 1st application). Control of Bermudagrass may be improved by directing the spray beneath the crop canopy. To improve coverage, apply the product at a minimum of 15 gals. per acre.

²A second application may be made 2 - 3 weeks after the first, but before the quackgrass exceeds 10" in height. Always use 1% v/v crop oil concentrate. In no-till soybeans, a pre-plant application of a burndown herbicide (including paraquat) is advised. Do not make spot treatments.

³Make first application before the boot stage. In eastern Oklahoma, the Brazos Bottoms, the Blacklands, Coastal Bend and Rio Grande areas of eastern Texas, make the first application at 8" - 12". If new shoots emerge or regrowth occurs, make a second application at 4" - 6".

⁴A second application may be needed if regrowth occurs.

⁵Increase rates of **Sharda Fluazifop-P-butyl 24.5% EC** to 24 fl. oz. per acre (0.375 lb. a.i. fluazifop/A) for the first application and 16 fl. oz. per acre (0.250 lb. a.i. fluazifop/A) for the second application when applied in sodded orchards.

Table 5. Sharda Fluazifop-P-butyl 24.5% EC Perennial Grass Control Use Rate Directions for All Crops Except Coffee - Region 2

For best results, apply **Sharda Fluazifop-P-butyl 24.5% EC** 3 days before to 7 days after irrigation.

Perennial Grass Species	Application Number	Height (Inches)	Sharda Fluazifop-P-butyl 24.5% EC Rate
Bermudagrass ^{1,2}	1	4 - 8" (runner length)	16 - 24 fl. oz./A
	2	4" - 8"	16 - 24 fl. oz./A
Johnsongrass, Rhizome ^{3,4}	1	12" - 18"	16 - 24 fl. oz./A ⁵
	2	12" - 18"	16 - 24 fl. oz./A ⁵

¹A second application may be needed if regrowth occurs (usually about 4 weeks after first application). Control of Bermudagrass may be improved by directing the spray beneath the crop canopy. To improve coverage, apply the product at a minimum of 20 gals. per acre. **DO NOT** exceed the maximum rate for any individual crop as specified in the **CROP SPECIFIC RESTRICTIONS**.

²Colorado, Oklahoma (west of Interstate 35), and Texas (west of Interstate 35): Make application of **Sharda Fluazifop-P-butyl 24.5% EC** at the reduced rates of 12 - 16 fl. oz. per acre (0.188 - 0.250 lb. a.i. fluazifop/A) when soil moisture and growing conditions are favorable.

³Make first application before the boot stage. If new shoots emerge or regrowth occurs, make a second application (usually about 4 weeks later). **DO NOT** exceed the maximum rate for any individual crop as specified in the **CROP SPECIFIC RESTRICTIONS**.

⁴Colorado, Oklahoma (west of Interstate 35) and Texas (west of Interstate 35): Make the first application of **Sharda Fluazifop-P-butyl 24.5% EC** to 8" - 18" johnsongrass at a reduced rate of 12 fl. oz. per acre (0.188 lb. a.i. fluazifop/A) when soil moisture and growing conditions are favorable. Make the second application to 6" - 12" johnsongrass at a rate of 12 fl. oz. per acre (0.188 lb. a.i. fluazifop/A).

⁵California only: Make first application of **Sharda Fluazifop-P-butyl 24.5% EC** to johnsongrass at 16 fl. oz. per acre (0.250 lb. a.i. fluazifop/A); and a second application at 12 - 16 fl. oz. per acre (0.188 - 0.250 lb. a.i. fluazifop/A).

SOYBEANS: TANK MIXING AND SEQUENTIAL APPLICATIONS

Table 6. Soybean Herbicide Tank Mixes for Region 1*

Product**	Rate per Acre	Spray Additives (% v/v)
Sharda Fluazifop-P-butyl 24.5% EC + Flexstar ¹ (Sodium Salt of Formesafen, EPA Reg. # 100-1101)	12 fl. oz. + 0.75 - 1.5 pts.	0.5 - 1% COC or 0.25 - 0.5% NIS
Sharda Fluazifop-P-butyl 24.5% EC + Flexstar ¹ (Sodium Salt of Formesafen, EPA Reg. # 100-1101) + Basagran [®] Herbicide (Sodium bentazon, EPA Reg. # 7969-45)	12 fl. oz. + 0.75 - 1.5 pts. + 1 - 2 pts.	0.5 - 1% COC or 0.25 - 0.5% NIS
Sharda Fluazifop-P-butyl 24.5% EC + Reflex [®] Herbicide ² (Sodium Salt of Formesafen, EPA Reg. # 100-993)	12 fl. oz. + 0.75 - 1.5 pts.	0.5 - 1% COC or 0.25 - 0.5% NIS
Sharda Fluazifop-P-butyl 24.5% EC + Reflex Herbicide ² (Sodium Salt of Formesafen, EPA Reg. # 100-993) + Basagran Herbicide (Sodium bentazon, EPA Reg. # 7969-45)	12 fl. oz. + 0.75 - 1.5 pts. + 1 - 2 pts.	0.5 - 1% COC or 0.25 - 0.5% NIS
Sharda Fluazifop-P-butyl 24.5% EC + Basagran Herbicide (Sodium bentazon, EPA Reg. # 7969-45)	12 fl. oz. + 1 - 2 pts.	0.5 - 1% COC or 0.25 - 0.5% NIS
Sharda Fluazifop-P-butyl 24.5% EC + Ultra Blazer [®] (Acifluorfen, EPA Reg. # 70506-60)	12 fl. oz. + 0.5 - 1.5 pts.	0.25% NIS

*Region 1 - All states except the areas of Arizona, California, Colorado, Hawaii, New Mexico, West Oklahoma, West Texas, and Utah as outlined in the **REGIONAL USE MAP** section.

**Follow the listed use rate and growth stages for the grass and broadleaf weeds on the respective product labels.

¹See the Flexstar label for maximum use rate for specified geographic regions.

²See the Reflex Herbicide label for maximum use rate for specified geographic regions.

Table 7. Soybean Herbicide Tank Mixes for Region 2*

Product**	Rate per Acre	Spray Additives (% v/v)
Sharda Fluazifop-P-butyl 24.5% EC + Basagran Herbicide (Sodium bentazon, EPA Reg. # 7969-45)	12 - 24 fl. oz. + 1 - 2 pts.	0.5 - 1% COC or 0.25 - 0.5% NIS
Sharda Fluazifop-P-butyl 24.5% EC + Ultra Blazer (Acifluorfen, EPA Reg. # 70506-60)	12 - 24 fl. oz. + 0.5 - 1.5 pts.	0.25 - 0.5% NIS

*Region 2 - For the areas of Arizona, California, Colorado, Hawaii, New Mexico, West Oklahoma, West Texas, and Utah as outlined in the **REGIONAL USE MAP** section.

**Follow the listed rate and growth stages for the grass and broadleaf weeds on the respective product labels.

Additional Soybean Tank Mix Directions with Chlorimuron

Applications of **Sharda Fluazifop-P-butyl 24.5% EC** may be made in tank mix combination with chlorimuron for control of volunteer corn, shattercane and broadleaf weeds in soybeans. In Region 1, add **Sharda Fluazifop-P-butyl 24.5% EC** to the tank at 6 - 8 fl. oz. per acre (0.094 - 0.125 lb. a.i. fluazifop/A). The 8 fl. oz. (0.125 lb a.i.) per acre rate may be needed under conditions of low humidity and low soil moisture and may be used when volunteer corn and/or shattercane foliage is dense or has reached the maximum specified growth stage. In Region 2, add **Sharda Fluazifop-P-butyl 24.5% EC** to the tank at 12 fl. oz. per acre (0.188 lb. a.i. fluazifop/A). Add chlorimuron to the tank at the labeled use rates for broadleaf weed growth stages described on the chlorimuron label. Always add a nonionic surfactant at 0.25% v/v or a crop oil concentrate at 1% v/v to the finished spray volume.

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

Tank Mix with Imazethapyr - Region 1 Only

Application of **Sharda Fluazifop-P-butyl 24.5% EC** and imazethapyr may be made as a tank mix for control of volunteer corn,

shattercane and broadleaf weeds in soybeans (Region 1 only).

Add **Sharda Fluazifop-P-butyl 24.5% EC** to the tank mix at 4 - 6 fl. oz. per acre (0.062 - 0.094 lb. a.i. fluazifop/A). The 6 fl. oz. per acre (0.094 lb. a.i. fluazifop/A) rate may be needed under conditions of low humidity and low soil moisture and may be used when volunteer corn and/or shattercane foliage is dense or has reached the maximum specified growth stage. Add Imazethapyr to the tank at the labeled use rates for broadleaf weed growth stages described on the imazethapyr label. Always add an adjuvant (approved nonionic surfactant or crop oil concentrate) and liquid fertilizer to the spray mixture. See the imazethapyr label for additive rates.

Under certain conditions, tank mixtures with **Sharda Fluazifop-P-butyl 24.5% EC** and 1 or more of the above-listed broadleaf herbicides may reduce control of grass weeds and possibly cause increase in crop injury as compared to the products used alone. Make a second application of **Sharda Fluazifop-P-butyl 24.5% EC** if grass regrowth occurs or an additional flush of grasses emerge, according to label directions. When perennial grasses are the predominant grass to be controlled, a sequential application is advised.

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.

Soybean Tank Mixtures with Glyphosate

Sharda Fluazifop-P-butyl 24.5% EC can be tank mixed with glyphosate for control of volunteer corn including volunteer glyphosate-resistant corn in glyphosate-resistant soybean. Make application of **Sharda Fluazifop-P-butyl 24.5% EC** at 4 - 6 fl. oz. per acre (0.062 - 0.094 lb. a.i. fluazifop/A). Use the 4 fl. oz. per acre (0.062 lb. a.i. fluazifop/A) rate only under the following conditions:

- Favorable soil moisture and humidity conditions, typically within a few days after rainfall or irrigation.
- Avoid extreme air temperatures.
- When volunteer corn is less than 12" tall.
- When 0.25% v/v crop oil concentrate (COC) is included in tank mix. This COC is in addition to the additives required by the glyphosate product.

If the above conditions are not met, use the higher application rate.

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.

Sequential Applications

Sharda Fluazifop-P-butyl 24.5% EC can be used sequentially with other labeled soybean herbicides. Allow 2 - 3 days after the application of **Sharda Fluazifop-P-butyl 24.5% EC** before applying a broadleaf herbicide or mixture. In situations where the broadleaf herbicide or mixture is applied first, apply **Sharda Fluazifop-P-butyl 24.5% EC** when the grass weeds begin to develop new leaves (typically about 7 days).

Restrictions:

DO NOT apply less than 12 fl. oz. **Sharda Fluazifop-P-butyl 24.5% EC** per acre (0.188 lb. a.i. fluazifop/A) in a tank mix with broadleaf herbicides in soybeans, except as listed on this label.

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 mixes or sequential applications. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

TANK MIXES AND SEQUENTIAL APPLICATIONS FOR COTTON

Glyphosate-Resistant Cotton Tank Mixtures

Application of **Sharda Fluazifop-P-butyl 24.5% EC** may be made in tank mix combination with glyphosate products for control of volunteer corn including volunteer glyphosate-resistant corn in glyphosate-resistant cotton. Make application of **Sharda Fluazifop-P-butyl 24.5% EC** at 4 - 6 fl. oz. per acre (0.062 - 0.094 lb. a.i. fluazifop/A). Use the 4 fl. oz. per acre (0.062 lb. a.i. fluazifop/A) rate only under the following conditions:

- Favorable soil moisture and humidity conditions, typically within a few days after rainfall or irrigation.
- Avoid extreme air temperatures.
- When volunteer corn is less than 12" tall.

When 0.25% v/v crop oil concentrate (COC) is included in tank mix. This COC is in addition to the additives required by the glyphosate product label.

If the above conditions are not met, use the higher application rate.

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.

Sequential Applications

Sharda Fluazifop-P-butyl 24.5% EC can be used sequentially with other cotton herbicides labeled for use. For sequential applications, allow 2 - 3 days after the application of **Sharda Fluazifop-P-butyl 24.5% EC** before making application of a broadleaf herbicide or mixture. In instances where the broadleaf herbicide or mixture is applied first, make application of **Sharda Fluazifop-P-butyl 24.5% EC** when the grass weeds begin to develop new leaves (typically about 7 days).

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 mixes or sequential applications. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

COFFEE - HAWAII ONLY

Use **Sharda Fluazifop-P-butyl 24.5% EC** as a post-emergence ground application. Make application with sufficient spray volume to ensure complete coverage of the target grass weeds. Applications can be made as a broadcast, strip band, or spot spray treatments.

Make application of **Sharda Fluazifop-P-butyl 24.5% EC** at 16 - 24 fl. oz. per acre (0.250 - 0.375 lb. a.i. fluazifop/A) for control of annual and perennial grass weeds at the listed growth stages in the tables below. Add crop oil concentrate at 1% v/v (1 gals./100 gals.) or nonionic surfactant at 0.25 - 0.5% v/v (1 - 2 qts./100 gals.) in the finished spray volume.

Sharda Fluazifop-P-Butyl 24.5% EC Annual Grass Control Growth Stages For Coffee

Make applications when grasses are 2" - 8" tall, but prior to tillering and/or heading.

Annual Grass Species		
Barneygrass	Goosegrass	Shattercane
Crabgrass	Guineagrass, Seedling	Signalgrass, Broadleaf
Large	Itchgrass	Sorghum, Alamo
Smooth	Johnsongrass, Seedling	Volunteer Cereals
Southern	Junglerice	Volunteer Barley
Tropical	Panicums	Volunteer Corn
Cupgrass	Fall	Volunteer Milo
Prairie	Texas	Volunteer Oats
Southwestern	Proso Millet, Wild	Volunteer Rye
Woolly	Rice, Red	Volunteer Wheat
Foxtail	Ryegrass, Italian	Wildcane
Giant	Sandbur	Wild Oats
Green	Field	Witchgrass
Yellow	Southern	

Sharda Fluazifop-P-Butyl 24.5% EC Perennial Grass Control Growth Stages For Coffee

Perennial Grass Species	Height (Inches)
Bermudagrass	4" - 8" (runners)
Johnsongrass, Rhizome	8" - 18" tall and before boot stage
Kikuyugrass	4" - 8" (runners)
Muhly, Wirestem	4" - 12" tall and before seedhead initiation
Quackgrass	6" - 10"

BANANAS AND PLANTAINS

Make application of **Sharda Fluazifop-P-butyl 24.5% EC** as a directed post-emergence treatment in the interspaces and around the base of banana and plantain plants. Avoid contact of the product (including mist) with the trunk and foliage. Applications can be made as a broadcast, strip band, or spot spray application at rates and growth stages listed in Tables 2 through 5. Make application with sufficient spray volume and pressure to ensure complete coverage of target weeds.

APRICOT; BLUEBERRY, LOWBUSH; BUSHBERRY SUBGROUP 13-07B; CANEBERRY SUBGROUP 13-07A; CHERRY; CITRUS FRUITS GROUP 10; MACADAMIA NUT; NECTARINE; PEACH; PECAN; PLUM; PRUNE; SMALL FRUIT VINE CLIMBING SUBGROUP 13-07F (EXCEPT FUZZY KIWIFRUIT)

APRICOT; BLUEBERRY, LOWBUSH (A swell as lingonberry; currant, native); **BUSHBERRY SUBGROUP 13-07B** (Aronia berry; blueberry, highbush; buffalo currant; Chilean guava; cranberry, highbush; currant, black; currant, red; elderberry; European barberry; gooseberry; honeysuckle, edible; huckleberry; jostaberry; Juneberry (Saskatoon berry); salal; sea buckthorn; and cultivars, varieties, and/or hybrids of these); **CANEBERRY SUBGROUP 13-07A** (Blackberry; loganberry; raspberry, black and red; wild raspberry; cultivars, varieties, and/or hybrids of these); **CHERRY; CITRUS FRUITS GROUP 10** (Australian desert lime; Australian finger-lime; Australian round lime; Brown River finger lime; calamondin; citron; citrus hybrids; grapefruit; Japanese summer grapefruit; kumquat; lemon; lime; Mediterranean mandarin; mount white lime; New Guinea wild lime; orange, sour; orange, sweet; pummelo; Russell River lime; satsuma mandarin; sweet lime; tachibana orange; Tahiti lime; tangelo; tangerine (mandarin); tangor; trifoliate orange; uniq fruit; cultivars, varieties, and/or hybrids of these); **MACADAMIA NUT; NECTARINE; PEACH; PECAN; PLUM; PRUNE; SMALL FRUIT VINE CLIMBING SUBGROUP 13-07F (EXCEPT FUZZY KIWIFRUIT)** (Amur River grape; gooseberry; grape; kiwifruit, hardy; maypop; schisandra berry; cultivars, varieties, and/or hybrids of these)

Apply **Sharda Fluazifop-P-butyl 24.5% EC** as a directed post-emergence treatment in the interspaces and around the base of plants. Avoid contact of the product with plants. Make application with sufficient spray volume and pressure to ensure complete coverage of

target weeds. Applications can be made as a broadcast, strip band, or spot spray application at rates and growth stages listed in Tables 2 through 5. Refer to the **Spray Additives** section for spray additives.

FINE FESCUE GRASSES GROWN FOR SEED IN IDAHO, OREGON AND WASHINGTON

Apply **Sharda Fluazifop-P-butyl 24.5% EC** for control of downy brome, quackgrass, bentgrass and volunteer cereals in fine fescue grasses (including Chewings, Creeping Red and Hard Fescue varieties) grown for seed. See Tables 2 and 4 for a complete listing of grass weeds controlled. See the **Spray Additives** section for spray additives.

Application Rate and Timing

Fall Application

Application Rate of Sharda Fluazifop-P-butyl 24.5% EC	Timing
8 fl. oz./A (0.125 lb. a.i. fluazifop/A)	<ul style="list-style-type: none"> Actively growing downy brome in the 2"-4" stage
12 - 16 fl. oz. per acre (0.188 - 0.250 lb. a.i. fluazifop/A)	<ul style="list-style-type: none"> Actively growing quackgrass or bentgrass in the 6"-10" stage 2nd application: Same rate before regrowth exceeds 10"

Spring Application

Application Rate of Sharda Fluazifop-P-butyl 24.5% EC	Timing
8 - 16 fl. oz. per acre (0.125 - 0.250 lb. a.i. fluazifop/A)	<ul style="list-style-type: none"> Actively growing grasses. Downy brome in the 2" - 4" stage can be controlled by the lower rate but larger, established grasses (4" - 6") may need the higher rate for adequate control.
12 - 16 fl. oz. per acre (0.188 - 0.250 lb. a.i. fluazifop/A)	<ul style="list-style-type: none"> Actively growing quackgrass and bentgrass is at the 6"-10" stage 2nd application: same rate before regrowth exceeds 10"

Restrictions:

- DO NOT** make application of **Sharda Fluazifop-P-butyl 24.5% EC** after fescue grass seedhead develops into the boot stage.
- DO NOT** use on tall fescue.
- See the **CROP SPECIFIC RESTRICTIONS** section for additional information.

Precaution:

- For use on fine fescues (Chewings, Creeping Red and Hard Fescue varieties) grown for seed. Other types of fescues may be injured by this product.

NON-BEARING CROPS

Sharda Fluazifop-P-butyl 24.5% EC can be used to control annual and perennial grass weeds in non-bearing groves, orchards, vineyards, or tree farms* or during site preparation before transplanting. Refer to the tables below for specific uses.

*Not registered for use in California.

Make applications of **Sharda Fluazifop-P-butyl 24.5% EC** at 16 - 24 fl. oz. per acre (0.250 - 0.375 lb. a.i. fluazifop/A) for control of annual and perennial grass weeds at the listed growth stages in the following tables. Add crop oil concentrate at 1% v/v (1 gal./100 gals.) or nonionic surfactant at 0.25 - 0.5% v/v (1 - 2 qts./100 gals.) in the finished spray volume.

Sharda Fluazifop-P-Butyl 24.5% EC Annual Grass Control Growth Stages For Non-Bearing Crops

Make applications when grasses are 2" - 8" tall, but before tillering and/or heading.

Annual Grass Species		
Barnyardgrass	Goosegrass	Signalgrass, Broadleaf
Brome, Downy ¹	Guineagrass, Seedling	Sorghum, Alnum
Crabgrass	Itchgrass	Volunteer Cereals
Large	Johnsongrass, Seedling	Volunteer Barley
Smooth	Junglerice	Volunteer Corn
Southern	Panicums	Volunteer Milo
Tropical	Fall	Volunteer Oats
Cupgrass	Texas	Volunteer Rye
Prairie	Proso Millet, Wild	Volunteer Wheat
Southwestern	Rice, Red	Wildcane
Woolly	Ryegrass, Italian	Wild Oats
Foxtail	Sandbur	Witchgrass
Giant	Field	
Green	Southern	
Yellow	Shattercane	

¹Not registered for use in California

Sharda Fluazifop-P-Butyl 24.5% EC Perennial Grass Control Growth Stages For Non-Bearing Crops

Perennial Grass Species	Height (Inches)
Bermudagrass	4" - 8" (runners)
Guineagrass	6" - 12" tall before seedhead initiation

Johnsongrass, Rhizome	8" - 18" tall and before boot stage
Kikuyugrass ¹	4 - 8 (runners)
Muhly, Wirestem	4" - 12" tall and before seedhead initiation
Quackgrass	6" - 10"
Torpedograss ²	3" - 6" tall (1 st application)
	2" - 3" tall (subsequent application)
¹ Not registered for use in California	
² Use Sharda Fluazifop-P-butyl 24.5% EC at 24 fl. oz. per acre (0.375 lb. a.i. fluazifop/A) per application. 3 applications may be needed.	

Sharda Fluazifop-P-Butyl 24.5% EC can be Used on The Following Non-Bearing Crops*

Crops		
Acerola (West Indian Cherry) ¹	Figs	Macadamia
Almonds	Filberts	Mango ¹
Apples	Florigraze rhizoma peanuts ¹ (Nursery stock only)	Olives
Asparagus	Ginseng ¹	Oranges
Avocados	Grapes	Pears
Berries	Grapefruit	Pineapple
Conifers ¹	Guava ¹	Pistachios
Christmas tree plantings	Jojoba	Pomegranates
Nursery beds	Kiwi ¹	Tangelos
Seedling establishment	Lemons	Tangerines
Dates	Limes	Walnuts
*Non-bearing crops not listed need to be screened for phytotoxicity before large scale use.		
¹ Not registered for use in California.		

Restrictions - Non-Bearing Crops:

- **DO NOT** use or store in or around the home.
- **DO NOT** make application of **Sharda Fluazifop-P-butyl 24.5% EC** to grass weeds that are stressed due to moisture, temperature, low soil fertility, mechanical or chemical injury.
- **DO NOT** make application to grass weeds that have tillered, formed seed heads, or exceeded listed growth stages.
- **DO NOT** make application to trees, vines, or other listed crops that will be harvested for food/feed within 1 year after application.
- **DO NOT** make application to asparagus from where spears will be harvested within 1 year of treatment. See the Asparagus section of the **CROP SPECIFIC RESTRICTIONS** for use in asparagus that will be harvested within 1 year.
- **DO NOT** graze or harvest *Florigraze rhizoma* peanuts for 1 year after treatment.
- **DO NOT** plant rotational grass crops including corn, sorghum and cereals within 60 days after the last application of **Sharda Fluazifop-P-butyl 24.5% EC**.
- **DO NOT** exceed a total of 72 fl. oz. of **Sharda Fluazifop-P-butyl 24.5% EC** per acre (1.125 lbs. a.i. fluazifop/A) per year.
- **DO NOT** exceed 24 fl. oz. of **Sharda Fluazifop-P-butyl 24.5% EC** per acre (0.375 lb. a.i. fluazifop/A) per application.
- **DO NOT** exceed 3 applications per year.
- Retreatment Interval: minimum of 14 days between applications.

Precautions - Non-Bearing Crops:

- Make applications of **Sharda Fluazifop-P-butyl 24.5% EC** to actively growing grass weeds before they exceed the specified growth stages.
- Spray to obtain complete coverage of grass foliage, but not to runoff. Additional treatments may be necessary to provide full season control.
- In a mixed grass weed population, make applications of **Sharda Fluazifop-P-butyl 24.5% EC** when the first grass species reaches the specified growth stage for treatment.
- When treating non-bearing trees and vines, avoid contact of product with foliage by using directed sprays.

NON-FOOD USES: FALLOW AGRICULTURAL LAND AND OTHER NON-CROP AREAS OF FARMS

Sharda Fluazifop-P-butyl 24.5% EC can be used to control annual and perennial grass weeds in agricultural fallow land of farms, and other non-crop areas including areas around farm buildings, farm equipment storage yards, and fence rows.

Make application of **Sharda Fluazifop-P-butyl 24.5% EC** at 16 - 24 fl. oz. per acre (0.250 - 0.375 lb. a.i. fluazifop/A) for control of annual and perennial grass weeds at the listed growth stages in the tables below. Add crop oil concentrate at 1% v/v (1 gal./100 gals.) or nonionic surfactant at 0.25 - 0.5% v/v (1 - 2 qts./100 gals.) in the finished spray volume.

Sharda Fluazifop-P-Butyl 24.5% EC Annual Grass Control Growth Stages For Fallow Agricultural Land And Non-Crop Areas Of Farms
Make applications when grasses are 2 - 8" tall, but before tillering and/or heading.

Annual Grass Species		
Barnyardgrass	Goosegrass	Signalgrass, Broadleaf
Brome, Downy ¹	Guineagrass, Seedling	Sorghum, Alnum
Crabgrass	Itchgrass	Volunteer Cereals
Large	Johnsongrass, Seedling	Volunteer Barley
Smooth	Junglerice	Volunteer Corn
Southern	Panicums	Volunteer Milo

Tropical	Fall	Volunteer Oats
Cupgrass	Texas	Volunteer Rye
Prairie	Proso Millet, Wild	Volunteer Wheat
Southwestern	Rice, Red	Wildcane
Woolly	Ryegrass, Italian	Wild Oats
Foxtail	Sandbur	Witchgrass
Giant	Field	
Green	Southern	
Yellow	Shattercane	

¹Not registered for use in California.

Sharda Fluazifop-P-Butyl 24.5% EC Perennial Grass Control Growth Stages For Fallow Agricultural Land and Non-Crop Areas of Farms

Perennial Grass Species	Height (Inches)
Bermudagrass	4" - 8" (runners)
Guineagrass	6" - 12" tall before seedhead initiation
Johnsongrass, Rhizome	8" - 18" tall and before boot stage
Kikuyugrass ¹	4 - 8 (runners)
Muhly, Wirestem	4" - 12" tall and before seedhead initiation
Quackgrass	6" - 10"
Torpedograss ²	3" - 6" tall (1 st application)
	2" - 3" tall (subsequent application)

¹Not registered for use in California.

²Use **Sharda Fluazifop-P-butyl 24.5% EC** at 24 fl. oz. per acre (0.375 lb. a.i. fluazifop/A) per application. 3 applications may be needed.

Restrictions - Fallow Agricultural Land and Non-Crop Areas of Farms

- **DO NOT** use or store in or around the home.
- **DO NOT** make application of **Sharda Fluazifop-P-butyl 24.5% EC** to grass weeds that are stressed due to moisture, temperature, low soil fertility, mechanical or chemical injury.
- **DO NOT** make application to grass weeds that have tillered, formed seed heads, or exceeded listed growth stages.
- **DO NOT** exceed a total of 72 fl. oz. of **Sharda Fluazifop-P-butyl 24.5% EC** per acre (1.125 lbs. a.i. fluazifop/A) per year.
- **DO NOT** exceed 24 fl. oz. of **Sharda Fluazifop-P-butyl 24.5% EC** per acre (0.375 lb. a.i. fluazifop/A) per application.
- **DO NOT** exceed 3 applications per year.
- Retreatment Interval: minimum of 14 days between applications.

Precautions - Fallow Agricultural Land and Non-Crop Areas of Farms

- Spray to obtain complete coverage of weed foliage, but not to runoff. Additional treatments may be needed to provide full season control.
- In a mixed grass weed population, make application of **Sharda Fluazifop-P-butyl 24.5% EC** when the first grass species reaches the specified growth stage for treatment.

CONVERSION TABLE

Sharda Fluazifop-P-Butyl 24.5% EC Rate To Be Applied			
Lb. A.i. per Acre	Pts. per Acre	Fl. Oz. Product per Acre	Acres per Gal.
0.094	$\frac{3}{4}$	6	21.3
0.125	$\frac{1}{2}$	8	16
0.156	$\frac{3}{4}$	10	12.8
0.188	$\frac{3}{4}$	12	10.7
0.250	1	16	8
0.375	1- $\frac{1}{2}$	24	5.3
0.469	1- $\frac{3}{4}$	30	4.3
0.500	2	32	4.0
0.750	3	48	2.7
1.125	4- $\frac{1}{2}$	72	1.8

APPENDIX

Scientific names are listed for those weeds listed in the **Sharda Fluazifop-P-butyl 24.5% EC** label.

Common Name	Scientific Name	Common Name	Scientific Name
Barnyardgrass	<i>Echinochloa crus-galli</i>	Muhly, Wirestem	<i>Muhlenbergia frondosa</i>
Bentgrass	<i>Agrostis</i> spp.	Panicum	
Bermudagrass	<i>Cynodon dactylon</i>	Fall	<i>Panicum dichotomiflorum</i>
Brome, Downy	<i>Bromus tectorum</i>	Texas	<i>Panicum texanum</i>
Crabgrass		Proso Millet, Wild	<i>Panicum miliaceum</i>
Large	<i>Digitaria sanguinalis</i>	Quackgrass	<i>Elymus repens</i>
Smooth	<i>Digitaria ischaemum</i>	Rabbitfootgrass	<i>Polypogon monspeliensis</i>
Southern	<i>Digitaria ciliaris</i>	Rice, Red	<i>Oryza sativa</i>
Tropical	<i>Digitaria bicornis</i>	Ryegrass, Italian	<i>Lolium multiflorum</i>
Cupgrass		Sandbur	
Prairie	<i>Eriochloa contracta</i>	Field	<i>Cenchrus incertus</i>

Southwestern	<i>Eriochloa gracilis</i>	Southern	<i>Cenchrus echinatus</i>
Woolly	<i>Eriochloa villosa</i>	Shattercane	<i>Sorghum bicolor</i>
Foxtail		Signalgrass, Broadleaf	<i>Brachiaria platyphylla</i>
Giant	<i>Setaria faberi</i>	Sorghum, Almun	<i>Sorghum almun</i>
Green	<i>Setaria viridis</i>	Volunteer Cereals	
Yellow	<i>Setaria pumila</i>	Volunteer Barley	<i>Hordeum vulgare</i>
Goosegrass	<i>Eleusine indica</i>	Volunteer Corn	<i>Zea mays</i>
Guineagrass, seedling	<i>Panicum maximum</i>	Volunteer Milo	<i>Sorghum bicolor</i>
Itchgrass	<i>Rottboellia exaltata</i>	Volunteer Oats	<i>Avena sativa</i>
Johnsongrass		Volunteer Rye	<i>Secale cereale</i>
Rhizome	<i>Sorghum halepense</i>	Volunteer Wheat	<i>Triticum aestivum</i>
Seedling	<i>Sorghum halepense</i>	Wild Oats	<i>Avena fatua</i>
Junglerice	<i>Echinochloa colonum</i>	Witchgrass	<i>Panicum capillare</i>
Kikuyugrass	<i>Pennisetum clandestinum</i>		

STORAGE AND DISPOSAL

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

Pesticide Storage

Store in original container only. Keep container closed when not in use. Do not store near food or feed. In case of spill or leak on floor or paved surfaces, soak up with sand, earth or synthetic absorbent. Remove to chemical waste area.

Pesticide Disposal

Open dumping is prohibited. Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency or the Hazardous Waste Representative at the nearest EPA Regional Office for guidance.

[Container Handling [less than or equal to 5 gallons]

[Non-refillable container.] Do not reuse or refill this container. 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 puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures approved by State and local authorities.]

[Container Handling [greater than 5 gallons]

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

[Container Handling [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 person refilling. To clean container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures approved by State and local authorities.]

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

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