

# OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION

WASHINGTON, D.C. 20460

October 25, 2025

Maryanne Kellogg maryanne@pyxisrc.com AXILL SOLUTIONS, LLC

Subject: Non-PRIA (Pesticide Registration Improvement Act) Labeling Amendment - Update the use

rates, add California specific language, and reformat the label in accordance with a reference

label

Product Name: Axill Solutions Glufosinate 280SL

Admin Number: 93809-14 EPA Receipt Date: 07/23/2024 Action Case Number: 00624360

# Dear Maryanne Kellogg:

The amended labeling referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, is acceptable.

This approval does not affect any terms or conditions that were previously imposed on this registration. You continue to be subject to existing terms or conditions on your registration and any deadlines connected with them.

A stamped copy of your labeling is enclosed for your records. This labeling supersedes all previously accepted labeling. You must submit one (1) copy of the final printed labeling before you release this product for shipment with the new labeling. In accordance with 40 CFR § 152.130(c), you may distribute or sell this product under the previously approved labeling for 18 months from the date of this letter. After 18 months, you may only distribute or sell this product if it bears this new revised labeling or subsequently approved labeling. "To distribute or sell" is defined under FIFRA section 2(gg) and its implementing regulation at 40 CFR § 152.3.

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 FIFRA and is subject to review by 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.

Your release for shipment of this product constitutes acceptance of these terms. If these terms are not complied with, this registration will be subject to cancellation in accordance with FIFRA section 6.

If you have questions, please contact Olivia Anderson by telephone at (202) 564-2255 or via email at anderson.olivia@epa.gov.

Sincerely,

Kable Bo Davis

Kable Bo Davis, Senior Advisor FHB, RD Office of Pesticide Programs

GLUFOSINATE-AMMONIUM GROUP 10 HERBICIDE

# Axill Solutions Glufosinate 280SL

ABNs: Axill Solutions Glufosinate Ammonium 280SL: Glufosinate 280SL: Glufosinate Ammonium 280SL

Axill Solutions Glufosinate 280SL is a non-selective herbicide. Apply Axill Solutions Glufosinate 280SL for post emergence control of listed weed species in listed berry, tree, and vine crops. Axill Solutions Glufosinate 280SL may also be applied for potato vine desiccation. Axill Solutions Glufosinate 280SL is also a non-selective herbicide for hooded spray applications in conventional cotton and post emergence broadcast use on canola, field corn, sweet corn[\*] cotton, soybean, and sugar beets[\*] designated as glufosinate-resistant. Axill Solutions Glufosinate 280SL may be applied as a broadcast burndown application before planting or prior to emergence of any conventional or glufosinate-resistant variety of canola, field corn, cotton, soybean, or sugar beet[\*]. Axill Solutions Glufosinate 280SL may also be applied for canola, corn, cotton, and soybean seed propagation.

[\*Not for use in California.]

Active Ingredient:	% By Weight
Glufosinate-ammonium	24.5%
Other Ingredients:	
Total:	100.0%
Contains 2.34 lbs, of active ingredient per gallon	

intains 2.34 lbs. of active ingredient per gallon.

# **KEEP OUT OF REACH OF CHILDREN WARNING / AVISO**

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

FIRST AID				
IF IN EYES:	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.			
IF ON SKIN OR	Take off contaminated clothing.			
CLOTHING:	<b>CLOTHING:</b> • Rinse skin immediately with plenty of water for 15-20 minutes.			
	Call a poison control center or doctor for treatment advice.			
IF SWALLOWED:	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.			
	Have person sip a glass of water if able to swallow.			
DO NOT give anything by mouth to an unconscious person.				
NOTE TO PHYSICIAN				

If this product is ingested, endotracheal intubation and gastric lavage must be performed as soon as possible, followed by charcoal and sodium sulfate administration.

#### **HOTLINE NUMBERS**

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. For 24-Hour Medical Emergency Assistance (Human or Animal), call: 1-800-222-1222. For Chemical Emergency Assistance (Spill, Leak, Fire, or Accident), call CHEMTREC: 1-800-424-9300. For general information on this product contact the National Pesticide Information Center (NPIC) at 1-800-858-7378, Monday-Friday, 8am - 12pm PST, or at http://npic.orst.edu.

{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].

EPA Reg. No.: 93809-14

Manufactured For: Axill Solutions, LLC 422 Jasmine Way Roseburg, OR 97471

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10/25/2025

Under the Federal Insecticide, Fungicide and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No. 93809-14

EPA EST. NO	
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# {LANGUAGE INSIDE BOOKLET}

# PRECAUTIONARY STATEMENTS

# HAZARDS TO HUMANS AND DOMESTIC ANIMALS WARNING

Causes substantial but temporary eye injury. Harmful if absorbed through skin. Harmful if swallowed. **DO NOT** get in eyes. Avoid contact with skin or clothing. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove and wash contaminated clothing before reuse.

#### PERSONAL PROTECTIVE EQUIPMENT (PPE)

#### Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves including barrier laminate, butyl rubber ≥14 mils, nitrile rubber ≥14 mils, neoprene rubber ≥14 mils, polyvinyl chloride (PVC) >14 mils, or Viton® >14 mils
- Shoes plus socks
- Protective eyewear (goggles, face shield or safety glasses)
- Wear a chemical-resistant apron when mixing/loading and cleaning equipment.

#### Applicators using ground boom equipment with open cabs to treat cotton must wear:

- Long-sleeved shirts and long pants
- Shoes and socks
- Chemical-resistant gloves

# Mixer/loaders supporting ground boom applications to corn, canola, soybean, cotton, citrus fruit, pome fruit, stone fruit, and olives must wear:

- Long-sleeved shirts and long pants
- Shoes and socks
- Chemical-resistant gloves

# Mixers/loaders supporting aerial applications 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.
- When mixing and loading wear a chemical-resistant apron.
- For overhead exposure wear chemical-resistant headgear.
- When cleaning equipment wear a chemical-resistant apron.

# **ENGINEERING CONTROL STATEMENT**

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 REQUIREMENTS**

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

## **USER SAFETY RECOMMENDATIONS**

# Users should:

- 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**

**DO NOT** apply directly to water or to areas where surface water is present. **DO NOT** apply to intertidal areas below the mean highwater mark. **DO NOT** contaminate water by cleaning of equipment or disposal of equipment wash waters or rinsate.

This pesticide is toxic to vascular plants. Use in strict accordance with the drift and run-off precautions on this label in order to minimize off-site exposures.

This product may impact surface water quality due to runoff of rainwater. This is especially true for poorly draining soils with shallow groundwater. This product is classified as having a medium potential for reaching both surface water and aquatic sediment via runoff for several weeks after application. A level, well maintained vegetative buffer strip between areas to which this product is applied and surface water features including ponds, streams, and springs will reduce the potential loading of glufosinate-ammonium from runoff water and sediment. Runoff of this product will be reduced by avoiding applications when rainfall or irrigation is expected to occur within 48 hours.

#### PHYSICAL-CHEMICAL HAZARDS

DO NOT mix or allow coming in contact with oxidizing agents or hazardous chemical reaction will occur.

# **DIRECTIONS FOR USE**

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

**DO NOT** use this product until you have read the entire label. **DO NOT** apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

In the State of New York Only: Not For Use In Nassau and Suffolk Counties.

## 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 intervals. 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, with the following exceptions:

- The REI for works engaged in scouting activities in corn, canola, and soybeans is 4 days.
- The REI for workers to move irrigation piping is 7 days for all crops.

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, including plants, soil, or water, is:

- Coveralls worn over short-sleeved shirt and short pants
- Chemical-resistant gloves including barrier laminate, butyl rubber ≥14 mils, nitrile rubber ≥14 mils, neoprene rubber ≥14 mils, polyvinyl chloride (PVC) ≥14 mils, or Viton® ≥14 mils
- Shoes plus socks
- Protective eyewear (goggles, face shield or safety glasses)

# 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. The application for NON-CROP USES are not within the scope of the WPS. Keep unprotected persons out of treated areas until sprays have dried.

#### **PRODUCT INFORMATION**

**Axill Solutions Glufosinate 280SL** is a water soluble herbicide for use as a foliar spray in bushberries (crop subgroup 13-07B), trees: citrus (crop group 10-10), olive, pome fruit (crop group 11-10), stone fruit (crop group 12-12), tree nut (crop group 14-12), vines (grapes); also for foliar spray in glufosinate-resistant canola, corn[\*], cotton, soybean and sugar beet[\*], as well as hooded spray in non-glufosinate-resistant cotton; and for use in potato desiccation, burndown, non-crop and fallow fields. **Axill Solutions Glufosinate 280SL** exhibits foliar activity to a wide spectrum of broadleaf, grass, annual and perennial weeds.

[\*Not for use on sweet corn or sugar beet in California.]

When making application to bushberries (crop subgroup 13-07B), trees: citrus (crop group 10-10), olive, pome fruit (crop group 11-10), stone fruit (crop group 12-12), tree nut (crop group 14-12), vines (grapes), keep **Axill Solutions Glufosinate 280SL** solution from contacting green bark, branches or vegetation, to prevent injury to plants. Trunks with callused, established brown bark, or shielded by nonporous wraps, grow tubes or waxed containers can be sprayed with **Axill Solutions Glufosinate 280SL**.

When making post-emergent foliar application to canola, corn, cotton, soybean and sugar beet, be sure to make application only to glufosinate-resistant crops. If used on row crops not designated as glufosinate-resistant, Axill Solutions, LLC does not warrant that they will tolerate the use of this product without harm to the extent consistent with applicable law.

Glufosinate-resistant crops contain a gene which results in a plant that is resistant to glufosinate-ammonium, whereas other crops **DO NOT** contain this gene and will suffer serious crop injury or death. When applying **Axill Solutions Glufosinate 280SL**, take care that spray does not contact desirable vegetation, foliage, or green tissue of non-glufosinate-resistant plants.

When making application to conventional cotton, use a hooded sprayer, to avoid exposure of cotton plants to **Axill Solutions Glufosinate 280SL**. If **Axill Solutions Glufosinate 280SL** comes in contact with non-glufosinate-resistant cotton plants (foliage or stems), serious injury or loss of plant could occur.

**Axill Solutions Glufosinate 280SL** can be applied broadcast prior to planting or emergence of conventional or glufosinate-resistant canola, corn, cotton, soybean or sugar beet, to act as a burndown agent for existing weed species.

#### **IMPORTANT**

- Axill Solutions Glufosinate 280SL has foliar activity, but little to no activity in soil. Apply product to actively growing weeds for best control. Little to no control of weeds that emerge after application will be achieved.
- For optimum weed control:
  - O Make sure uniform, thorough spray coverage is obtained.
  - O Avoid cultivation from 5 days prior to application to 7 days following application.
  - o If possible, avoid application in heavy dew, fog, mist, or rain.
  - Apply Axill Solutions Glufosinate 280SL between dawn and 2 hours before sunset (to optimize lambsquarters and velvetleaf control).
- Under good growing conditions, leaves and young shoots will exhibit leaf necrosis within 2 4 days of application
- When applying to most weed species, **Axill Solutions Glufosinate 280SL** will be rainfast 4 hours after treatment (if weeds are exposed to rain prior to 4 hours after application, may need retreatment, or may give decreased weed control)
- Decreased weed control may be observed if weeds are under stress due to such environmental conditions as cloudy weather, cool temperatures, or drought.

#### MIXING DIRECTIONS

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.

Before adding **Axill Solutions Glufosinate 280SL** to the spray tank, make sure the tank has been thoroughly cleaned and free of any product residue. See the **CLEANING** section for instructions. The spray tank must also be properly calibrated prior to use.

**Axill Solutions Glufosinate 280SL** dilutes quickly and easily in water. For proper mixing fill the spray tank with water and begin agitation. Add **Axill Solutions Glufosinate 280SL** and continue agitation. Prior to applying **Axill Solutions Glufosinate 280SL** to crops or use sites, flush out the spray system lines. This will guarantee that the complete system contains and is applying the correct concentration of **Axill Solutions Glufosinate 280SL**.

## Tank Mixtures - Compatibility

If applying **Axill Solutions Glufosinate 280SL** in a tank mix or with other mixing products, test compatibility prior to mixing in application equipment.

Compatibility Test: In a lidded jar (~1 quart size), add all mix partners, in their relative proportions. Invert, shake or mix the jar thoroughly. If mixture forms precipitates (flakes or sludge), gels, balls up or forms oily film or layers, this indicates incompatibility. Let the mixture stand for 15 minutes before determining compatibility.

# Tank Mixtures - Mixing

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.

**Axill Solutions Glufosinate 280SL** can be applied on its own or in combination with other herbicides to provide additional residual control or to support product performance. Make certain that any tank mix partners are registered for use on the same crops or use sites on this product label, and follow all label instructions, restrictions, and precautions on both labels.

Consult specific crop use directions for additional information regarding rates and restrictions.

# Mix Axill Solutions Glufosinate 280SL using the following procedure:

- 1. Fill a clean spray tank with half of the water required for treatment.
- 2. Begin agitation.
- 3. If mixing with a flowable/wettable powder tank mix partner, use a clean container to make a slurry of the powder and a small amount of water. Add the slurry to the spray tank; rinse slurry mix container; add rinsate to spray tank.
- 4. If required, add appropriate amount of ammonium sulfate (AMS) to the spray tank.
- 5. If mixing with a liquid tank mix partner, add to spray tank next.
- 6. Add the rest of the water to the spray tank.
- 7. Continue agitation and add measured amount of Axill Solutions Glufosinate 280SL to spray tank.
- 8. A silicone antifoam agent can be added, if needed to deter foaming.

Maintain agitation until the product is used. If spray mixture settles, be sure to thoroughly agitate to remix the solution prior to continuing application. Foaming can be minimized by positioning bypass line near or on the bottom of the tank. Use screen size of 50 mesh or greater in line strainers and nozzles.

#### APPLICATION DIRECTIONS

Apply **Axill Solutions Glufosinate 280SL** to weeds in a manner that results in good coverage of the weed foliage, otherwise diminished weed control will result. Make application when weeds are small, at rates indicated in crop specific sections of this product label.

#### **Ground Application**

**Axill Solutions Glufosinate 280SL** can be applied as a broadcast treatment. To ensure complete spray coverage, mix product in at least 15 gallons of water per acre, and up to 20 gallons of water per acre if weed or crop canopy is heavy, unless otherwise indicated in specific crop use directions. For additional information concerning product application, consult the **MANDATORY SPRAY DRIFT MANAGEMENT** portion of this label.

#### **Aerial Application**

Unless otherwise specified in specific crop use directions, **Axill Solutions Glufosinate 280SL** can be applied aerially. Mix product in a minimum of 10 gallons of water per acre. For additional information concerning product application, consult the **MANDATORY SPRAY DRIFT MANAGEMENT** portion of this label.

Application Restriction: Air-assisted spray equipment, flood jet nozzles or controlled droplet application equipment cannot be used.

#### **CLEANING**

Before storing, mixing or applying **Axill Solutions Glufosinate 280SL**, ensure that all tanks or storage containers have been thoroughly cleaned, including all lines and filters. Thoroughly clean and rinse any containers with a commercial tank cleaner, and consult labeling for any product previously contained or used for additional specific cleaning directions.

After storing, mixing or applying Axill Solutions Glufosinate 280SL, clean the equipment or containers thoroughly:

- Triple rinse spray equipment
- Use a commercial tank cleaner following rinses
- Completely remove any foam or rinsate from the boom and spray tank
- Consult pesticide disposal directions for disposing of rinsate

#### **CROP ROTATION**

**DO NOT** plant crops in previously treated areas unless in compliance with the Rotational Restrictions found below, or in the specific crop use directions. Illegal residues may result if Rotational Restrictions are not followed. Consult **POTATO VINE** for Rotational Restrictions specifically following **Axill Solutions Glufosinate 280SL** application to potatoes as a vine desiccant.

Стор	Minimum Rotational Interval
Canola; Corn, Sweet Corn; Cotton; Soybeans; and Sugarbeets	0 days
	(may be planted at any time after Axill Solutions Glufosinate 280SL application)
Root and Tuber Vegetables; Leafy Vegetables; Brassica Leafy Vegetables; and Small Grains (Barley, Buckwheat, Oats, Rye, Teosinte, Triticale, Wheat)	70 days
Other Crops*	180 days
*For all crops not listed in the table above, there must be a minimum rotation interval of 180 (	days.

#### WEED RESISTANCE MANAGEMENT

Glufosinate-ammonium, the active ingredient in this product, is a Group 10 herbicide based on the mode of action classification system of the Weed Science Society of America. Any weed population may contain plants naturally resistant to Group 10 herbicides. Weed species with acquired resistance to Group 10 herbicides may eventually dominate the weed population if Group 10 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 **Axill Solutions Glufosinate 280SL** or other Group 10 herbicides. Users must scout before and after application.

To delay herbicide resistance:

- Rotate the use of **Axill Solutions Glufosinate 280SL** or other Group 10 herbicides within a growing season sequence or among growing seasons with different herbicide groups that control the same weeds in a field.
- Adopt an integrated weed-management program for herbicide use that includes scouting and uses historical information related
  to herbicide use and crop rotation, and that considers tillage (or other mechanical control methods), cultural (e.g., higher crop
  seeding rates; precision fertilizer application method and timing to favor the crop and not the weeds), biological (weedcompetitive crops or varieties) and other management practices.
- Scout fields after application to monitor weed populations for early signs of resistance development. Indicators of possible herbicide resistance include: (1) failure to control a weed species normally controlled by the herbicide at the dose applied, especially if control is achieved on adjacent weeds; (2) a spreading patch of non-controlled plants of a particular weed species; (3) surviving plants mixed with controlled individuals of the same species. If resistance is suspected, prevent weed seeds production in the affected area by an alternative herbicide from a different group or by a mechanical method including hoeing or tillage. Prevent movement of resistant weed seeds to other fields by cleaning harvesting and tillage equipment when moving between fields, and planting clean seeds.
- If a weed pest population continues to progress after treatment with this product discontinue use of this product, and switch to another management strategy or herbicide with a different mode of action, if available
- Contact your local extension specialist, certified crop advisors and/or manufacturer for herbicide resistance management and/or integrated weed management directions for specific crops and resistant weed biotypes.
- For further information or to report suspected resistance, contact an Axill Solutions, LLC [1-559-936-0444] retailer or representative.

#### MANDATORY SPRAY DRIFT MANAGEMENT

- When applying to crops via aerial application equipment, the spray boom must be mounted on the aircraft so as to minimize
  drift caused by wing tip or rotor blade vortices. The boom length must not exceed 75% of the wingspan or 90% of the rotor
  blade diameter
- When applying to crops via aerial application equipment, applicators must use ½ swath displacement upwind at the downwind edge of the field.
- **DO NOT** apply when wind speeds exceed 10 miles per hour at the application site.
- **DO NOT** apply during temperature inversions.
- For aerial applications, **DO NOT** release spray at a height greater than 10 feet above the crop canopy, unless a greater application height is necessary for pilot safety.
- For ground applications and aerial applications, select nozzle and pressure that deliver medium to coarse spray droplets as indicated in nozzle manufacturer's catalogues and in accordance with ASABE Standard 572.1.
- Spray at the appropriate boom height based on nozzle selection and nozzle spacing, but DO NOT exceed a boom height of 24 inches above target pest or crop canopy. Set boom to lowest effective height over the target pest or crop canopy based on equipment manufacturer's directions. Automated boom height controllers are advised with large booms to better maintain optimum nozzle to canopy height. Excessive boom height will increase the potential for spray drift.
- For non-crop vegetation management ground applications, apply with the nozzle height no more than 4 feet above the ground or target vegetation, unless necessitated by the application equipment. Examples would include roadside, railroad, utility rights of way, forestry, and other industrial vegetation management applications where safety or natural barriers obstruct application.

#### **SPRAY DRIFT ADVISORIES**

#### POLLINATOR ADVISORY STATEMENT

This product contains an herbicide. Follow all label directions and precautions to minimize potential off-target exposure in order to prevent effects to non-target plants adjacent to the treated site which may serve as habitat or forage for pollinators.

## **Importance of Droplet Size**

The most effective way to reduce drift potential is to apply large droplets. The best drift management strategy is to apply the largest droplets that provide sufficient coverage and control. The presence of sensitive species nearby, the environmental conditions, and pest pressure may affect how an applicator balances drift control and coverage. APPLYING LARGER DROPLETS REDUCES DRIFT POTENTIAL, BUT WILL NOT PREVENT DRIFT IF APPLICATIONS ARE MADE IMPROPERLY OR UNDER UNFAVORABLE ENVIRONMENTAL CONDITIONS! See Wind, Temperature and Humidity, and Temperature Inversions sections of this label.

## **Techniques for Controlling Droplet Size**

- **Volume** Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets.
- Pressure Use the lower spray pressures advised for the nozzle. Higher pressure reduces droplet size and does not improve canopy penetration. WHEN HIGHER FLOW RATES ARE NEEDED, USE A HIGHER-CAPACITY NOZZLE INSTEAD OF INCREASING PRESSURE.
- **Nozzle Type** Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles.

#### **Controlling Droplet Size – Aircraft**

- Number of Nozzles Use the minimum number of nozzles with the highest flow rate that provide uniform coverage.
- Nozzle Orientation Orienting nozzles so that the spray is emitted backwards, parallel to the airstream will produce larger droplets than other orientations. AVOIDING SPRAY DRIFT IS THE RESPONSIBILITY OF THE APPLICATOR.
- Nozzle Type Solid stream nozzles (including disc and core with swirl plate removed) oriented straight back produce larger droplets than other nozzle types.
- Boom Length Longer booms increase drift potential. Therefore, a shorter boom length is advised.
- Application Height Application more than 10 ft. above the canopy increases the potential for spray drift.

## **Boom Height**

Setting the boom at the lowest referenced height (if specified) which provides uniform coverage reduces the exposure of droplets to evaporation and wind. For ground equipment, the boom must remain level with the crop and have minimal bounce.

# **Drift Reduction Technology (DRT)**

The EPA Drift Reduction Technology (DRT) Program was developed to encourage the manufacture, marketing, and use of spray technologies scientifically verified to significantly reduce pesticide drift. The use of DRTs should result in significantly less pesticide spray applications drifting and being deposited in areas not targeted by those applications, compared to spray technologies that **DO NOT** meet the minimum DRT standard. EPA-verified drift reduction technologies (DRTs) and their ratings will be added to the following webpage as they become available: <a href="https://www.epa.gov/reducing-pesticide-drift/epa-verified-and">https://www.epa.gov/reducing-pesticide-drift/epa-verified-and</a> rated-drift-reduction-technologies

# Wind

Drift potential increases at wind speeds of less than 3 mph (due to inversion potential) or more than 10 mph. However, many factors, including droplet size and equipment type determine drift potential at any given wind speed. AVOID APPLICATIONS DURING GUSTY OR WINDLESS CONDITIONS. **Note:** Local terrain can influence wind patterns. Every applicator needs to be familiar be familiar with local wind patterns and how they affect spray drift.

#### **Temperature and Humidity**

When making applications in hot and dry conditions, set up equipment to produce larger droplets to reduce effects of evaporation.

#### **Temperature Inversions**

Drift potential is high during a temperature inversion. Temperature inversions restrict vertical air mixing, which causes small-suspended droplets to remain close to the ground and move laterally in a concentrated cloud. Temperature inversions are characterized by increasing temperature with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog; however, if fog is not present, inversions can also be identified by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.

#### **Shielded Sprayers**

Shielding the boom or individual nozzles can reduce the effects of wind. However, it is the responsibility of the applicator to verify that the shields are preventing drift and not interfering with uniform deposition of the product.

#### **USE DIRECTIONS FOR LISTED BERRY, TREE AND VINE CROPS**

Axill Solutions Glufosinate 280SL can be applied to the following Berry, Tree and Vine orchard crops:

- Bushberry (crop subgroup 13-07B): blueberry, currant, elderberry, gooseberry, huckleberry, lingonberry, juneberry, salal
- Citrus (crop group 10-10): lemon, orange, grapefruit, lime, mandarin, tangerine, tangelo, calamondin, kumquat, pummelo, citron, citrus hybrids, Tangor, and cultivars, varieties and/or hybrids of these
- Olives
- Pome Fruits (crop group 11-10): apples, pear, crabapple, loquat, mayhaw, quince, azarole, Medlar, Tejocote, cultivars, varieties and/or hybrids of these
- Stone Fruit (crop group 12-12): apricot, cherry, peach, nectarine, plum, capulin, jujube, Sloe and cultivars, varieties and/or hybrids of these
- Tree Nuts (crop group 14-12): almond, filberts, hickory nuts, macadamia nuts (bush nuts), pecans, pistachio, walnut
- Vine: all grape varieties (table, wine, raisin)

Application of Axill Solutions Glufosinate 280SL can be made via broadcast, spot or directed spray or banded spray applications

#### **Use Rate and Timing**

**Broadcast Application:** Make broadcast application at the following use rates, depending on height of weeds or growth phase of grasses:

48 fl. oz. product/A (0.87 lb. a.i./A) – Weeds <3" in height

56 fl. oz. product/A (1.02 lbs. a.i./A) – Weeds <6" in height, pre-tiller grasses

56 - 82 fl. oz./A (1.02 - 1.5 lbs. a.i./A) - Weeds >6" in height and/or grasses that have tillered

**Spot or Directed Spray:** Make application to weeds until foliage is wet, but not to the point of runoff. Use 1.7 fl. oz. **Axill Solutions Glufosinate 280SL** (0.03 lb. a.i.) per gallon of water.

**Banded Application:** Rates indicated above are for broadcast use. The equivalents must be adjusted to reflect the actual treated area. The following formulas indicate accurate rate and volume for banded uses:



**Sucker Control:** Apply 56 fl. oz. product/A (1.02 lbs. a.i./A) in a split application to young, green uncallused suckers that are no more than 12" in length. Wait approximately 4 weeks between applications. Sucker foliage must be thoroughly covered with product.

#### Important:

- **Axill Solutions Glufosinate 280SL** can be applied as a directed broadcast spray, banded or spot treatment, to control weeds and undesirable vegetation in tree, vine and berries listed above.
- Consult WEED LIST A for weeds controlled.
- For best results, use appropriate rates for size of weeds, make sure spray consistently and fully covers weeds, and apply to emerged weeds that are young and actively growing and which are less than 3" in height.
- For enhanced performance of Axill Solutions Glufosinate 280SL, apply during warm and sunny weather, and high humidity.
- Lower use rate, unfavorable environment, or weed growth stage at time of treatment could result in regrowth of weeds. Additional application of **Axill Solutions Glufosinate 280SL** may be needed for control of weeds growing from seeds or in-ground portions of weeds.
- It is best to use highest labeled application rate for weeds in thick populations or under stress (including prior treatments with other herbicides).
- Axill Solutions Glufosinate 280SL solution can injure or severely damage green bark, branches or vegetation, or desirable non-target plants. Avoid contact with mixture, spray, drift, or mist. Trunks with callused, established brown bark, or shielded by nonporous wraps, grow tubes or waxed containers can be sprayed with Axill Solutions Glufosinate 280SL.
- Thoroughly clean application equipment following use.

#### **Tank Mixes**

Unexposed plant parts or residual weed growth is not controlled by **Axill Solutions Glufosinate 280SL**. For residual control or control of a broader spectrum of weeds, or to support product performance, **Axill Solutions Glufosinate 280SL** can be mixed with other herbicides registered for use on berries, trees, and vine crops. 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 mix. When using **Axill Solutions Glufosinate 280SL** in a tank mix, additional surfactant is not required.

#### **Restrictions:**

- **DO NOT** apply more than 164 fl. oz./A **Axill Solutions Glufosinate 280SL** (3 lbs. a.i./A) to bushberry (crop subgroup 13-07B) or stone fruit (crop group 12-12) within a 1-year period.
- **DO NOT** apply more than 246 fl. oz./A **Axill Solutions Glufosinate 280SL** (4.5 lbs. a.i./A) to tree nuts (crop group 14-12) and vines, pome fruit (crop group 11-10), citrus (crop group 10-10) and olives within a 1-year period.
- **DO NOT** apply more than 82 fl. oz./A (1.5 lbs. a.i./A) in a single application.
- **DO NOT** make more than 2 applications per year to bushberry (crop subgroup 13-07B), or stone fruit (crop group 12-12).
- **DO NOT** make more than 3 applications to tree nuts (crop group 14-12), vines, pome fruit (crop group 11-10), citrus (crop group 10-10), or olives per year.
- Pre-harvest interval is 14 days.
- DO NOT graze or harvest and/or feed berry, tree nut and vine orchard cover crops to livestock.
- **DO NOT** make directed spray or spot applications to vine trunk or tree trunk, or spot applications to suckers (to avoid injury).
- DO NOT apply through any type of irrigation system.
- **DO NOT** apply this product using aerial application.
- DO NOT reapply within 14 days of previous application for berries, tree nuts, vine, citrus fruits, pome fruits and olives.
- DO NOT reapply within 28 days of previous application for stone fruits.
- DO NOT retreat after previous herbicide application until weeds have reached adequate height for effective treatment.

# WEED LIST A - For Berry, Tree and Vine Crops

Broadleaf Weeds

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	Broadi	eat weeds		
Alkali sida	Fleabane, annual	Morningglory, entireleaf	Redmaids	
Ammannia, purple	Goosefoot	Morningglory, ivyleaf	Shepherd's Purse	
Arrowhead, California	Gromwell, field	Morningglory, pitted	Smartweed, Pennsylvania	
Buckwheat, wild	Groundcherry, cutleaf	Mullein, turkey	Sowthistle, annual	
Buffalobur	Groundsel, common	Mustard, wild	Spurge, prostrate	
Burclover, California	Henbit	Nettle	Starthistle, yellow	
Carpetweed	Jimsonweed	Nightshade, black	Sunflower, common	
Chickweed, common	Knotweed	Nightshade, eastern black	Sunflower, prairie	
Chinese thornapple	Kochia	Nightshade, hairy	Sunflower, volunteer	
Cocklebur, common	Lambsquarters, common	Pennycress	Swinecress	
Cudweed	Lettuce, miner's	Pigweed, redroot	Thistle, Russian	
Cutleaf evening primrose	Lettuce, prickly	Pineapple-weed	Turnip, wild	
Dodder	London rocket	Puncturevine	Velvetleaf	
Eclipta	Mallow, common	Purslane, common	Vervain	
Fiddleneck	Malva (little mallow)	Radish, wild	Vetch	
Filaree	Marestail	Ragweed, common	Virginia copperleaf	
Filaree, redstem	Mayweed	Ragweed, giant	Willowherb, panicle	
	Biennial and	Perennial Weeds	•	
Aster, white heath	Dandelion	Mustard, tansy	Rose, wild	
Bindweed, field	Dock, curly	Nutsedge, purple	Rubus spp.	
Bindweed, hedge	Dogbank (hemp)	Nutsedge, yellow	Spurge, leafy	
Bluegrass, Kentucky	Fescue	Onion, wild	Thistle, bull	
Bromegrass, smooth	Goldenrod, gray	Orchardgrass	Thistle, Canada	
Bulrush <sup>1</sup>	Guineagrass	Paragrass	Thistle, musk	
Burdock	Horsetail	Plantain	Torpedograss	
Clover, Alsike	Lovegrass	Poison ivy/oak	Vaseygrass	
Clover, red	Mugwort	Quackgrass	Woodsorrel	
Clover, white	Mullein, common	Rocket, yellow	Yarrow, common	
Dallisgrass				
	Grass W	/eeds		
Barnyardgrass	Crabgrass, smooth	Junglerice	Shattercane	
Bluegrass, annual	Cupgrass, woolly	Oat, wild	Sprangletop	
Brome, ripgut	Foxtail, giant	Panicum, fall	Stinkgrass	
Bromegrass, downy	Foxtail, green	Panicum, Texas	Wheat, volunteer	
Canarygrass	Foxtail, yellow	Rush, toad <sup>1</sup>	Windgrass	
Chess, soft	Goosegrass	Ryegrass, annual <sup>2</sup>	Witchgrass	
Crabgrass, large	Johnsongrass, seedling	Sandbur, field		
<sup>1</sup> Suppression only.				
<sup>2</sup> Make application to annual r	ryegrass before it reaches 3" tall.			

#### **USE DIRECTIONS FOR CANOLA**

**Axill Solutions Glufosinate 280SL** can be applied to glufosinate-resistant canola to control weeds.

#### **Use Rate and Timing**

Apply 22 - 29 fl. oz./A product (0.4 - 0.53 lb. a.i./A) to canola in cotyledon to early bolt stage. A second application of 22 -29 fl. oz./A product (0.4 - 0.53 lb. a.i./A) may be used for control of later emerging weeds. Consult **WEED LIST C** for weed species controlled.

#### Important:

- For enhanced performance of Axill Solutions Glufosinate 280SL, apply during warm and sunny weather and high humidity
- For best results, make sure spray consistently and fully covers weeds, and apply to emerged weeds that are young and actively growing and which are less than 3" in height
- Use of **Axill Solutions Glufosinate 280SL** may result in a temporary slight discoloration of canola after application, which will not influence yield, growth, or maturity of the crop.
- Early season weed control is necessary for best harvest
- **Axill Solutions Glufosinate 280SL** will not control any volunteer glufosinate-resistant plants (corn, cotton, soybean or sugarbeets) that are left from the previous season.

If canola is injured or adversely affected by environmental stress or conditions (including excessive rainfall, fog, heavy dew, cool temperatures, cloudiness, drought, pest pressure, etc.) or prior herbicide application, weed control can be reduced.

#### **Tank Mixes**

To support product performance, **Axill Solutions Glufosinate 280SL** can be mixed with other herbicides registered for use on canola. 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 mix. When using **Axill Solutions Glufosinate 280SL** in a tank mix with a grass herbicide used at a reduced rate (including a herbicide containing the active ingredients quizalofop, sethoxydim or clethodim) the AMS rate may be reduced to 1.5 lbs./A. When using **Axill Solutions Glufosinate 280SL** in a tank mix, additional surfactant is not required.

#### **Spray Additive**

If weeds are under stress or if more persistent weeds (including velvetleaf or lambsquarters) are present, addition of ammonium sulfate (AMS) at a rate of 1.5 - 3 lbs./A to **Axill Solutions Glufosinate 280SL** can enhance results. Choose appropriate rate based on temperatures and environmental conditions, the probability of leaf burn, or tank mixes. If necessary, other additives, including drift control agents can be used. Use of an antifoam agent is suggested. Use care when adding additional crop oils or surfactants, as the risk of an adverse crop response can be increased.

#### **Restrictions:**

- **DO NOT** apply more than 29 fl. oz./A (0.53 lb. a.i./A) per application.
- DO NOT make more than 2 applications of Axill Solutions Glufosinate 280SL per year.
- **DO NOT** exceed the max yearly application rate of 87 fl. oz./A (1.59 lbs. a.i./A) per year. The maximum annual rate for CA is 72 fl. oz./A (1.32 lbs a.i./A).
- **DO NOT** reapply within 10 days of previous applications.
- **DO NOT** apply within 65 days of harvest.
- DO NOT apply through any type of irrigation system.
- **DO NOT** hay or graze treated canola.
- DO NOT apply Axill Solutions Glufosinate 280SL to glufosinate-resistant canola in the following states: AL, DE, GA, KY, MD, NJ, NC, SC, TN, VA, and WV.

#### **USE DIRECTIONS FOR BURNDOWN - CANOLA**

**Axill Solutions Glufosinate 280SL** can be applied prior to planting or emergence of conventional or transgenic canola to act as a burndown agent for existing weed species.

Table 2A: RESTRICTIONS - Burndown Use Rates in glufosinate-resistant Canola

Use Rate: Burndown	Use Rate: In Season	Maximum use rate per year
29 -43* fl. oz./A (0.53 – 0.79 lb. a.i./A)	1 to 2 applications at 29 fl oz./A (0.53 lb. a.i./A). Make second application at least 10 days after the first application.	87* fl. oz./A (1.59 lbs. a.i./A)

<sup>\*</sup>Maximum rate in California is 36 fl. oz./A (0.66 lb a.i./A) with an annual maximum of 72 fl. oz. (1.32 lbs. a.i./A).

Apply at least 29 fl. oz./A of **Axill Solutions Glufosinate 280SL** (0.53 lb. a.i./A) just before planting or emergence. If weeds are large or weed pressure is high, due to environmental conditions preventing timely use of **Axill Solutions Glufosinate 280SL**, a single application of up to 43 fl. oz./A (0.79 lb. a.i./A) can be made.

#### **Restrictions:**

- **DO NOT** apply more than 43 fl. oz./A (0.79 lb. a.i./A) per burndown application. Or, a maximum of 36 fl. oz./A (0.66 lb. a.i./A) in California.
- **DO NOT** exceed the maximum yearly application rate of 87 fl. oz./A (1.59 lbs. a.i./A) per year. Or, a maximum yearly rate of 72 fl. oz. (1.32 lbs. a.i./A) in California.
- **DO NOT** make more than 1 burndown application per year.

#### Table 2B: RESTRICTIONS - Burndown Use Rates in conventional Canola

Use Rate: Burndown	Use Rate: In Season	Maximum use rate per year
29 – 43* fl. oz./A (0.53 – 0.79 lb. a.i./A)	None	43* fl. oz./A (0.79 lbs. a.i./A)

<sup>\*</sup>Maximum rate in California is 36 fl. oz./A (0.66 lb. a.i./A)

Apply at least 29 fl. oz./A of **Axill Solutions Glufosinate 280SL** (0.53 lb. a.i./A) just before planting or emergence. If weeds are large or weed pressure is high, due to environmental conditions preventing timely use of **Axill Solutions Glufosinate 280SL**, a single application of up to 43 fl. oz./A (0.79 lb. a.i./A) can be made.

#### **Restrictions:**

- **DO NOT** apply more than 43 fl. oz./A (0.79 lb. a.i./A) per burndown application. Or, a maximum of 36 fl. oz./A (0.66 lb. a.i./A) in California.
- DO NOT exceed the max yearly application rate of 43 fl. oz./A (0.79 lbs. a.i./A) per year.
- **DO NOT** make more than 1 burndown application per year.
- **DO NOT** make additional (post-emergent) applications to conventional canola when **Axill Solutions Glufosinate 280SL** is used as a burndown prior to planting.

# USE DIRECTIONS FOR SWEET CORN[\*], FIELD CORN AND SILAGE CORN [\*Not for use on sweet corn in California.]

Axill Solutions Glufosinate 280SL can be applied to glufosinate-resistant corn to control weeds.

## **Use Rate and Timing**

Apply 29 – 43\* fl. oz./A product (0.53 – 0.79 lb. a.i./A) to field and silage corn, or 22 fl. oz./A product (0.4 lb. a.i./A) to sweet corn. A second application of 29\* fl. oz. (field and silage corn) (0.53 lb. a.i./A) or 22 fl. oz. (sweet corn) (0.4 lb. a.i./A), or tank mix with a residual herbicide may be used for control of later emerging weeds. Consult **WEED LIST C** for weed species controlled.

\*The maximum application rate in California is 22 fl. oz./A (0.4 lb. a.i./A).

#### Timing

- Corn up to 24" tall or V7 stage of growth (7 developed collars), whichever comes first Apply over the top or ground application with drop nozzle.
- Corn 24" to 36" tall Ground application with drop nozzle (avoid spraying corn stalk leaf axis or whorls).

## Important:

- For best results, make sure spray consistently and fully covers weeds and apply to emerged weeds that are young and actively growing and which are less than 3" in height.
- For enhanced performance of Axill Solutions Glufosinate 280SL, apply during warm and sunny weather and high humidity.
- Early season weed control is necessary for best harvest.

If corn is injured or adversely affected by environmental stress or conditions (including excessive rainfall, fog, heavy dew, cool temperatures, cloudiness, drought, pest pressure, etc.) or prior herbicide applications, weed control can be reduced.

Tank Mixes: To support product performance, Axill Solutions Glufosinate 280SL can be mixed with other herbicides registered for use on corn (sweet, field or silage). 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 mix. Additional surfactant is not needed when tank mixing. If tank mixing with products containing the active ingredients carfentrazone-ethyl, metolachlor, smetolachlor, and products with a combination of s-metolachlor, mesotrione and atrazine, use half the rate with Axill Solutions Glufosinate 280SL, to reduce the risk for adverse crop response. If tank mixing with products containing pendimethalin, be aware that reduced control of barnyardgrass, fall panicum, field sandbur, yellow foxtail and volunteer corn can occur.

**Spray Additive:** If weeds are under stress or if more persistent weeds (including velvetleaf or lambsquarters) are present, addition of ammonium sulfate (AMS) at a rate of 1.5 - 3 lbs./A to **Axill Solutions Glufosinate 280SL** can enhance results. Choose appropriate rate based on temperatures and environmental conditions, the probability of leaf burn, or tank mixes. Use of an antifoam agent is suggested. Use care when adding additional crop oils or surfactants, as the risk of an adverse crop response can be increased.

#### **Restrictions:**

• **DO NOT** apply more than 43 fl. oz./A (0.79 lb. a.i./A) per application for in-crop use on glufosinate - resistant field and sillage corn. In California, the maximum application rate is 22 fl. oz./A (0.4 lb a.i./A).

- DO NOT apply more than 22 fl. oz./A (0.4 lb. a.i./A) per application for glufosinate resistant sweet corn.
- DO NOT make more than 2 applications of Axill Solutions Glufosinate 280SL to glufosinate resistant corn per year.
- **DO NOT** exceed the maximum yearly application rate of 87 fl. oz. (1.59 lbs. a.i./A) for glufosinate- resistant field and silage corn. The maximum annual rate in California is 44 fl. oz./A (0.8 lbs a.i./A).
- DO NOT exceed the maximum yearly application rate of 44 fl. oz. (0.8 lb. a.i./A) for sweet corn.
- For sweet corn, **DO NOT** apply within 7 days of previous application.
- For field and silage corn, **DO NOT** apply within 10 days of previous application.
- When **Axill Solutions Glufosinate 280SL** is used as a burndown prior to planting corn, no additional (post-emergent) applications can be made to corn.
- Pre-harvest interval for sweet corn ears: 50 days
- Pre-harvest interval for sweet corn stover: 55 days
- Pre-harvest interval for field and silage corn forage: 60 days
- Pre-harvest interval for field and silage corn grain and fodder: 70 days
- **DO NOT** apply through any type of irrigation system.
- Nitrogen solutions are not to be used as spray carriers.

# USE DIRECTIONS FOR BURNDOWN - CORN (FIELD, SILAGE AND SWEET\*)

# [\*Not for use in California]

**Axill Solutions Glufosinate 280SL** can be applied prior to planting or emergence of conventional or transgenic corn to act as a burndown agent for existing weed species.

Table 3A: RESTRICTIONS - Burndown Use Rates in glufosinate-resistant Field Corn

Use Rate: Burndown	Use Rate: In Season	Cumulative Maximum use rate per year
	1 to 2 applications at 29 – 43* fl oz./A (0.53 – 0.79 lb. a.i./A). Make second application at least 10 days after the first application.	

Apply at least 29 fl. oz./A of **Axill Solutions Glufosinate 280SL** (0.53 lb. a.i./A) just before planting or emergence. If weeds are large or weed pressure is high, due to environmental conditions preventing timely use of **Axill Solutions Glufosinate 280SL**, a single application of up to 43\* fl. oz./A (0.79 lb. a.i./A) can be made.

## Restrictions:

- **DO NOT** apply more than 43 fl. oz./A (0.79 lb. a.i./A) per burndown application. The maximum rate in California is 22 fl. oz. (0.4 lb. a.i./A).
- **DO NOT** exceed the maximum yearly application rate of 87 fl. oz. (1.59 lbs. a.i./A) for glufosinate-resistant corn. The maximum annual application rate in California is 44 fl. oz./A (0.8 lb. a.i./A).
- **DO NOT** make more than 1 burndown application per year.

Table 3B: RESTRICTIONS - Burndown Use Rates in glufosinate-resistant Sweet Corn\*

Use Rate: Burndown	Use Rate: In Season	Cumulative Maximum use rate per year
	1 to 2 applications at 22 fl. oz./A (0.4 lbs. a.i.). Make the second application at least 7 days after the first application.	

<sup>\*</sup>Not for use on Sweet Corn in California.

#### **Restrictions:**

- **DO NOT** apply more than 22 fl. oz./A (0.4 lb. a.i./A) per burndown application.
- **DO NOT** exceed the maximum yearly application rate of 44 fl. oz. (0.8 lb. a.i./A) for glufosinate- resistant sweet corn.
- DO NOT make more than 1 burndown application per year.

Table 3C: RESTRICTIONS - Burndown Use Rates in non-glufosinate resistant Corn\*.

Use Rate: Burndown	Use Rate: In Season	Cumulative Maximum use rate per year
29 – 43** fl. oz./A	None	43** fl. oz./A
(0.53 0.79 lb. a.i./A)	None	(0.79 lb. a.i./A)

<sup>\*</sup>Not for use on Sweet Corn in California.

If environmental conditions prevent timely applications, a single application may be made up to 43\*\* fl. oz. (0.79 lb a.i.) per acre of **Axill Solutions Glufosinate 280SL**. The year total may not exceed 43\*\* fl. oz. (0.79 lb. a.i./A) per acre, including all application timings, for non-glufosinate resistant crops.

<sup>\*</sup>Maximum rate in California is 22 fl. oz. (0.4 lb. a.i./A) with an annual maximum rate of 44 fl. oz./A (0.8 lb a.i./A).

<sup>\*\*</sup>Maximum rate in California is 36 fl. oz./A (0.66 lb. a.i./A).

#### **Restrictions:**

- **DO NOT** apply more than 43 fl. oz./A (0.4 lb. a.i./A) per burndown application. The maximum rate in California is 36 fl. oz./A (0.66 lb. a.i./A).
- DO NOT exceed the maximum yearly application rate of 43 fl. oz. (0.79 lb. a.i./A).
- **DO NOT** make more than 1 burndown application per year.

#### **USE DIRECTIONS FOR COTTON**

**Axill Solutions Glufosinate 280SL** can be applied to glufosinate-resistant cotton (broadcast, over-the-top post-emergence or directed spray) to control weeds, or conventional (non-glufosinate-resistant) cotton (post-emergence hooded/shielded spray) to control weeds. If **Axill Solutions Glufosinate 280SL** comes in contact with non-glufosinate-resistant cotton plants (foliage or stems), serious injury or loss of plant could occur. **Axill Solutions Glufosinate 280SL** can also be used for post-harvest applications.

#### **Use Rate and Timing**

**Axill Solutions Glufosinate 280SL** can be applied to cotton via 2 different use patterns. Timing 1 use pattern is used if weeds are particularly large, or weed pressure is high due to environmental conditions preventing timely use of **Axill Solutions Glufosinate 280SL**. Timing 2 use pattern is used for low to medium weed pressure. Consult **WEED LIST C** for weed species controlled. **Banded Application:** Rates indicated above are for broadcast use. The equivalents must be adjusted to reflect the actual treated area.

Band width in inches Row width in inches	X	Broadcast rate per acre	=	Amount of banded product needed per acre
Band width in inches Row width in inches	x	Broadcast spray volume per acre	=	Banded spray volume needed per acre

Glufosinate-Resistant Cotton: Apply product foliarly over the top or directed spray to the lower 1/3 of the cotton stand.

# Non-Glufosinate-Resistant Cotton - Hooded Spray Application:

The following formulas indicate accurate rate and volume for banded uses:

Apply **Axill Solutions Glufosinate 280SL** via a hooded sprayer that is designed to direct product spray to the weeds and minimize exposure to cotton plants. When using this method of application, take all possible steps to avoid exposing cotton plants to product spray. Key points for using hooded sprayer are:

- A hooded sprayer operates so that the top and sides are enclosed by a hood, protecting cotton from product spray.
- Set up hooded sprayer so that it is run on or skims across the field, and operate the sprayer in a manner and speed that keeps the hood from bouncing or raising off the ground. (**Note:** If hood becomes raised, it can allow spray particles to escape, which could cause damage or loss of cotton plant.)
- Adjust hoods to protect desirable plants and use nozzles that deliver uniform exposure.
- Avoid applying where ground is sloped or uneven, and could allow spray hoods to be raised off the ground.

#### Important:

- For best results, make sure spray consistently and fully covers weeds, and apply to emerged weeds that are young and actively growing and which are less than 3" in height.
- For enhanced performance of Axill Solutions Glufosinate 280SL, apply during warm and sunny weather, and high humidity.
- If cotton are injured or adversely affected by environmental stress or conditions (including excessive rainfall, fog, heavy dew, cool temperatures, cloudiness, drought, pest pressure, etc.) or prior herbicide application, weed control can be reduced.
- Consult WEED CHART B for weed control, and if a mixed population of weeds are present, use the rate necessary to control all
  weed species.
- Additional application of **Axill Solutions Glufosinate 280SL** or tank mix with other herbicide may be needed for control of weeds growing from seeds or in-ground portions of weeds.
- Early season weed control is necessary for best harvest.
- Axill Solutions Glufosinate 280SL will not control any volunteer glufosinate-resistant plants (corn, cotton, soybean, sugarbeet) that are left from the previous season.

#### **Tank Mixes**

To support product performance, **Axill Solutions Glufosinate 280SL** can be mixed with other herbicides registered for use on cotton. 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 mix.

# **Spray Additive**

If weeds are under stress or if more persistent weeds (including velvetleaf or lambsquarters) are present, addition of ammonium sulfate (AMS) at a rate of 1.5 - 3 lbs./A to **Axill Solutions Glufosinate 280SL** can enhance results. Choose appropriate rate based on temperatures and environmental conditions, the probability of leaf burn, or tank mixes. Use of an antifoam agent is suggested. Use care when adding additional crop oils or surfactants, as the risk of an adverse crop response can be increased.

- DO NOT apply more than 43 fl. oz./A (0.79 lb. a.i./A) in a single application for post-harvest burndown.
- DO NOT make more than 3 applications per year of Axill Solutions Glufosinate 280SL at a rate of 29 fl. oz./A (0.53 lb. a.i./A).

- If the single application rate exceeds 29 fl. oz./A (0.53 lb. a.i./A) then the yearly maximum use rate is 72 fl. oz./A (1.32 lbs. a.i./A) (including all application timings).
- If applying a maximum application rate of 29 fl. oz./A (0.53 lb. a.i./A), the maximum yearly application rate is not to exceed 87 fl. oz./A (1.6 lbs. a.i./A), including all application timings.
- If large weeds or dense infestation is present, because timely application was not possible (due to environmental conditions), an application rate not to exceed 43 fl. oz./A (0.79 lb. a.i./A) can be made, and a second application may be made at a maximum rate of 29 fl. oz./A (0.53 lb. a.i./A).
- If applying a maximum application rate greater than 29 fl. oz./A (0.53 lb. a.i./A), the maximum yearly application rate is not to exceed 72 fl. oz./A (1.32 lbs. a.i./A), including all application timings.
- **Post-Harvest Application:** When using **Axill Solutions Glufosinate 280SL** as a post-harvest burndown treatment to cotton fields, a single application not to exceed 43 fl. oz./A (0.79 lb. a.i./A) can be applied. Adjust use rate to correspond with size of weeds.
- **DO NOT** reapply within 10 days of prior application.
- Pre-harvest interval is 70 days.
- **DO NOT** apply through any type of irrigation system.
- Axill Solutions Glufosinate 280SL cannot be applied to cotton south of Tampa in Florida (Route 60) or in Hawaii (except for application to breeding nurseries or test plots).

Table 4: RESTRICTIONS – Broadcast, Over-the-Top Post-Emergence, or Directed Spray Use Rates in Cotton

Use Pattern	Use Rate Application 1	Use Rate Application 2	Use Rate Application 3	Cumulative Maximum use rate per year
TIMING 1	32 - 43 fl. oz./A (0.59 - 0.79 lb. a.i./A)	29 fl. oz./A (0.53 lb. a.i./A)	None	72 fl. oz./A (1.32 lbs. a.i./A)
TIMING 2	29 fl. oz./A (0.53 lb. a.i./A)	29 fl. oz./A (0.53 lb. a.i./A)	29 fl. oz./A (0.53 lb. a.i./A)	87 fl. oz./A (1.59 lbs. a.i./A)

#### **USE DIRECTIONS FOR BURNDOWN - COTTON**

**Axill Solutions Glufosinate 280SL** can be applied prior to planting or emergence of conventional or transgenic cotton to act as a burndown agent for existing weed species.

**Axill Solutions Glufosinate 280SL** can be applied via 2 different use patterns. Timing 1 use pattern is used for low to medium weed pressure, and when weeds are small and actively growing. Timing 2 use pattern is used if weed pressure is high and weeds are larger and actively growing.

Table 5: RESTRICTIONS - Burndown Use Rates in Cotton

Use Pattern	Use Rate: Burndown	Use Rate: In Season	Cumulative Maximum Use Rate per Year
TIMING 1	29 fl. oz./A (0.53 lb. a.i./A)	22 - 29 fl. oz./A (2 applications)* (0.4 - 0.53 lb. a.i./A)	87 fl. oz./A (1.59 lbs. a.i./A)
TIMING 2	30 - 43 fl. oz./A (0.55 - 0.79 lb. a.i./A)	22 - 29 fl. oz./A (1 application)* (0.4 - 0.53 lb. a.i./A)	72 fl. oz./A (1.32 lbs. a.i./A)

<sup>\*</sup>In season application is made via hooded sprayer in non-glufosinate-resistant cotton. Apply at least 29 fl. oz./ of **Axill Solutions Glufosinate 280SL** (0.53 lb. a.i./A) just before planting or emergence. If weeds are large or weed pressure is high, due to environmental conditions preventing timely use of **Axill Solutions Glufosinate 280SL**, a single application of up to 43 fl. oz./A (0.79 lb. a.i./A) can be made. Yearly maximum use rate is 72 fl. oz./A (1.32 lbs. a.i./A) (including all application timings) when a single application higher than 29 fl. oz./A (0.53 lb. a.i./A) is made.

## Restrictions:

- **DO NOT** apply more than 43 fl. oz./A (0.79 lb. a.i./A) per burndown application.
- **DO NOT** apply more than 43 fl. oz./A (0.79 lb. a.i./A) per year when applying a preplant burndown application.
- **DO NOT** make more than 1 burndown application per year.

#### Important:

- For best results, make sure spray consistently and fully covers weeds, and apply to emerged weeds that are young and actively growing.
- For enhanced performance of Axill Solutions Glufosinate 280SL, apply during warm and sunny weather, and high humidity.

#### **USE DIRECTIONS FOR SOYBEANS**

**Axill Solutions Glufosinate 280SL** can be applied to glufosinate-resistant soybeans to control weeds.

#### **Use Rate and Timing**

Apply  $29 - 43^*$  fl. oz./A product (0.53 - 0.79 lb. a.i./A) to soybeans, from emergence up to just before bloom. If weed pressure is high, due to environmental conditions, preventing a timely use of **Axill Solutions Glufosinate 280SL**, a single application of up to  $43^*$  fl. oz./A (0.79 lb. a.i./A) can be made to soybeans beyond the V3 - V4 vegetative growth phase. A second application of  $29 - 43^*$  fl. oz./A (0.53 - 0.79 lb. a.i./A) can be used for later emerging weeds. Consult **WEED LIST C** for appropriate application rate based on weed type.

<sup>\*</sup>Maximum rate in California is 36 fl. oz./A (0.66 lb. a.i./A).

#### Important:

- For enhanced performance of Axill Solutions Glufosinate 280SL, apply during warm and sunny weather and high humidity.
- For best results, make sure spray consistently and fully covers weeds, and apply to emerged weeds that are young and actively growing and which are less than 3" in height.
- Early season weed control is necessary for best harvest.
- Axill Solutions Glufosinate 280SL can provide complete weed control when applied in a timely manner, however tank mixing or
  use of Axill Solutions Glufosinate 280SL in conjunction with residual herbicides can help with reduction of early season weed
  competition, and control of later emerging weeds (particularly if environmental conditions prevented timely application of Axill
  Solutions Glufosinate 280SL).
- Axill Solutions Glufosinate 280SL will not control any volunteer glufosinate-resistant plants (corn, cotton, soybean, sugarbeet) that are left from the previous season.

If soybeans are injured or adversely affected by environmental stress or conditions (including excessive rainfall, fog, heavy dew, cool temperatures, cloudiness, drought, pest pressure, etc.) or prior herbicide application, weed control can be reduced.

#### **Tank Mixes**

To support product performance, **Axill Solutions Glufosinate 280SL** can be mixed with other herbicides registered for use on soybeans. 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 mix. Additional surfactant is not necessary when tank mixing.

# **Spray Additives**

If weeds are under stress or if more persistent weeds (including velvetleaf or lambsquarters) are present, addition of ammonium sulfate (AMS) at a rate of 1.5 - 3 lbs./A to **Axill Solutions Glufosinate 280SL** can enhance results. Use of an antifoam agent is suggested. Use care when adding additional crop oils or surfactants, as the risk of an adverse crop response can be increased.

#### **Restrictions:**

- DO NOT make more than 3 applications of Axill Solutions Glufosinate 280SL at above rates to soybeans per year (including preplant burndown).
- **DO NOT** exceed the max yearly application rate of 87 fl. oz./A (1.59 lbs. a.i./A). The annual maximum application rate in California is 72 fl. oz. (1.32 lbs. a.i.).
- **DO NOT** apply more than 43 fl. oz./A (0.79 lb. a.i./A) in a single application. The maximum application rate in California is 36 fl. oz./A (0.66 lb a.i./A).
- **DO NOT** apply within 5 days of previous application.
- Pre-harvest interval is 70 days.
- Axill Solutions Glufosinate 280SL is not to be applied through any type of irrigation system.
- Soybeans treated with Axill Solutions Glufosinate 280SL cannot be cut for hay or grazed.
- Nitrogen solutions are not to be used as spray carriers.

## **USE DIRECTIONS FOR BURNDOWN - SOYBEANS**

**Axill Solutions Glufosinate 280SL** can be applied prior to planting or emergence of conventional or transgenic soybeans to act as a burndown agent for existing weed species.

Table 6A: RESTRICTIONS - Burndown Use Rates in glufosinate-resistant Soybeans

Use Rate: Burndown	Use Rate: In Season	Cumulative Maximum use rate per year
29 – 43* fl. oz./A (0.53 – 0.79 lb. a.i./A)	1 to 2 applications at 29 – 43* fl. oz./A (0.53 – 0.79 lb. a.i./A)	87* fl. oz./A (1.59 lbs. a.i./A)

Apply at least 29 fl. oz./A of **Axill Solutions Glufosinate 280SL** (0.53 lb. a.i./A) just before planting or emergence. If weeds are large or weed pressure is high, due to environmental conditions preventing timely use of **Axill Solutions Glufosinate 280SL**, a single application of up to 43\* fl. oz./A (0.79 lb. a.i./A) can be made. For soybeans, an additional in-season application up to 43\* fl. oz./A (0.79 lb. a.i./A) can be made.

\*The maximum rate in California is 36 fl. oz./A (0.66 lbs a.i./A) with an annual maximum rate of 72 fl. oz./A (1.32 lbs. a.i.)

#### **Restrictions:**

- **DO NOT** apply more than 43 fl. oz./A (0.79 lb. a.i./A) per burndown application.
- **DO NOT** apply more than 43 fl. oz./A (0.79 lb. a.i./A) per year preplant burndown.
- **DO NOT** make more than 1 burndown application per year.

Table 6B: RESTRICTIONS - Burndown Use Rates in non-glufosinate resistant Soybeans

Use Rate: Burndown	Use Rate: In Season	Cumulative Maximum use rate per year
29 – 43* fl. oz./A	None	43* fl. oz./A
(0.53 – 0.79 lb. a.i./A)	None	(0.79 lb. a.i./A)

Apply at least 29 fl. oz./A of **Axill Solutions Glufosinate 280SL** (0.53 lb. a.i./A) just before planting or emergence. If weeds are large or weed pressure is high, due to environmental conditions preventing timely use of **Axill Solutions Glufosinate 280SL**, a single application of up to 43\* fl. oz./A (0.79 lb. a.i./A) can be made.

\*The maximum rate in California is 36 fl. oz./A (0.66 lb. a.i./A).

#### Restrictions:

- **DO NOT** apply more than 43 fl. oz./A (0.79 lb. a.i./A) per burndown application. The maximum rate in California is 36 fl. oz./A (0.66 lb. a.i./A).
- **DO NOT** apply more than 43 fl. oz./A (0.79 lb. a.i./A) per year preplant burndown. The maximum rate in California is 36 fl. oz./A (0.66 lb. a.i./A).
- **DO NOT** make more than 1 burndown application per year.

# USE DIRECTIONS FOR SUGARBEETS [(Not for use in California.)]

**Axill Solutions Glufosinate 280SL** can be applied to glufosinate-resistant sugarbeets to control weeds.

#### **Use Rate and Timing**

Apply up to 30 fl. oz./A product (0.55 lb. a.i./A) to sugarbeets, from cotyledon stage up to 10-leaf stage. A second application of up to 30 fl. oz./A (0.55 lb. a.i./A) will be needed to control later emerging weeds. Consult **WEED LIST B** for weed species controlled. Optimum control is obtained when weeds are 1 inch or less in height or diameter.

#### Important:

- To avoid reduced performance of **Axill Solutions Glufosinate 280SL**, **DO NOT** apply when heavy dew, fog, or mist/rain are present.
- For best results, make sure spray consistently and fully covers weeds, and apply to emerged weeds that are young and actively growing and which are less than 3" in height.
- For best results, make a cultivation 5 days before or 5 days after application of Axill Solutions Glufosinate 280SL.
- Early season weed control is necessary for best harvest.
- If sugarbeets are injured or adversely affected by environmental stress or conditions (including excessive rainfall, fog, heavy dew, cool temperatures, cloudiness, drought, pest pressure, etc.) or prior herbicide application, weed control can be reduced.
- Weeds that emerge after Axill Solutions Glufosinate 280SL has been applied will not be controlled, as Axill Solutions Glufosinate 280SL does not exhibit residual activity. If crop experiences a rain event within 4 hours of application, retreatment may be necessary, however after 4 hours, Axill Solutions Glufosinate 280SL is rainfast.

# **Tank Mixes**

To support product performance, **Axill Solutions Glufosinate 280SL** can be mixed with other herbicides registered for use on sugarbeets. 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 mix.

#### **Spray Additives**

If necessary, drift control agents can be used with **Axill Solutions Glufosinate 280SL**. **DO NOT** use surfactants. If weeds are under stress or if more persistent weeds (including velvetleaf or lambsquarters) are present, addition of ammonium sulfate (AMS) at a rate of 1.5 - 3 lbs./A to **Axill Solutions Glufosinate 280SL** can enhance results. Choose appropriate rate based on temperatures and environmental conditions, the probability of leaf burn, or tank mixes. Use of an antifoam agent is suggested.

#### **Restrictions:**

- DO NOT make more than 2 applications per year of Axill Solutions Glufosinate 280SL.
- **DO NOT** apply with 10 days of previous application.
- DO NOT exceed the max yearly application rate of 60 fl. oz./A (1.1 lbs. a.i./A).
- **DO NOT** apply more than 30 fl. oz./A (0.55 lb. a.i./A) in a single application.
- Pre-harvest interval is 60 days.
- **DO NOT** apply through any type of irrigation system.
- **DO NOT** hay or graze sugarbeets treated with product.
- Rotation crop plantback in sugarbeet field treated with **Axill Solutions Glufosinate 280SL** is 120 days after last application for all crops except wheat, barley, buckwheat, millet, oats, rye, sorghum and triticale (70-day plantback restriction) or corn, cotton, soybeans, canola and sugar beets glufosinate-resistant crops (0-day plantback restriction).

# **WEED LIST B - For Sugar Beets**

**Table 7** - The weed table indicates rates of product to be used for control of weeds based on weed height. If weed population consists of mixed species, apply rate indicated that will be efficacious for all species.

	Grass Weeds					
	Maximum W					
Weed Species	15 fl. oz. A (0.9 pt./A)	20 fl. oz. A (1.25 pt./A)	Use Notes			
	(0.27 lb. a.i./A)	(0.37 lb. a.i./A)				
Barley, volunteer	1-2 leaf (2")	3 leaf (3")	Multiple applications may be required			
Barnyard grass	1-3 leaf (2")	4-5 leaf (3")	Maximum of 1 tiller			
Corn, volunteer	1-2 leaf (3")	3-4 leaf (6")				
Crabgrass, large	1-3 leaf (2")	4-5 leaf (3")	Maximum of 1 tiller			
Crabgrass, smooth	1-3 leaf (2")	4-5 leaf (3")	Maximum of 1 tiller			
Crabgrass, wooly	1-5 leaf (4")	(8")				
Foxtail, giant	1-4 leaf (3")	5-6 leaf (4")	Maximum of 2 tillers			
Foxtail, green	1-4 leaf (3")	5-6 leaf (4")	Maximum of 2 tillers			
Foxtail, yellow	1-3 leaf (1")	4 leaf (2")	Apply prior to tillering			
Millet, volunteer proso	1-3 leaf (2")	4-5 leaf (3")	Max of 1 tiller			
Millet, wild proso	1-3 leaf (2")	4-5 leaf (3")	Max of 1 tiller			
Oat, wild	1-2 leaf (2")	3 leaf (3")	Max of 1 tiller			
Panicum, fall	1-3 leaf (2")	4-5 leaf (3")	Max of 1 tiller			
Panicum, Texas	1-3 leaf (2")	4-5 leaf (3")	Max of 1 tiller			
Sandbur, field	` ´	1-4 leaf (2")	Apply prior to tillering			
Wheat, volunteer	1-2 leaf (2")	3 leaf (3")	Maximum of 1 tiller			
·		rennial Weeds				
Quackgrass		1-3 leaf (3")	Multiple applications required			
Sowthistle, perennial		1-4 leaf (3")	Multiple applications required			
Thistle, Canada		1-4 leaf (3")	Multiple applications required			
•	Br	oadleaf Weeds				
Buckwheat, wild	1-4 leaf (2")	5-6 leaf (3")				
Buffalobur	1-4 leaf (2")	5-6 leaf (3")				
Carpetweed		1-4 leaf (2")				
Chickweed, common	1-4 leaf (2")	5-6 leaf (3")				
Cocklebur, common	1-6 leaf (3")	7-8 leaf (5")				
Kochia	(1")	(2")				
Ladysthumb	1-2 leaf (1")	3-4 leaf (3")				
Lambsquarters, common	1-2 leaf (1")	4-5 leaf (3")				
Mallow, Venice	1-4 leaf (2")	5-6 leaf (3")				
Marshelder	1-2 leaf (1")	3-4 leaf (2")				
Mustard, wild	1-4 leaf (2")	5-6 leaf (3")				
Nightshade, eastern black	1-4 leaf (2")	5-6 leaf (3")				
Pigweed, prostrate	(1")	(3")				
Pigweed, redroot	1-2 leaf (1")	3-4 leaf (3")				
Pigweed, spiny	1-2 leaf (1")	3-4 leaf (3")				
Purslane, common	(1")	(2")				
Ragweed, common	1-6 leaf (3")	7-8 leaf (5")				
Ragweed, giant	1-4 leaf (2")	5-6 leaf (3")				
Shepherd's purse	1-4 leaf (2")	5-6 leaf (3")				
Smartweed, Pennsylvania	1-2 leaf (1")	3-4 leaf (3")				
Sowthistle, annual	1-4 leaf (2")	5-6 leaf (3")				
•	1-6 leaf (3")	7-8 leaf (5")				
Sunflower, common	1-0 icai (3 )	/ 0 lcal (3 )				
Thistle, Russian	(1")	(2")				

<sup>\*</sup>Up to 30 fl. oz./A (0.55 lb. a.i./A) can be applied if weeds are taller than indicated in table.

Tank mix with herbicides containing clethodim, quizalofop, rimsulfuron or sethoxydim to enhance control of heavy populations or taller growth stages of volunteer barely, yellow foxtail, wild oats, or volunteer wheat.

# **USE DIRECTIONS FOR BURNDOWN - SUGARBEETS**

**Axill Solutions Glufosinate 280SL** can be applied prior to planting or emergence of conventional or transgenic sugarbeet, to act as a burndown agent for existing weed species.

**Axill Solutions Glufosinate 280SL** can be applied via 2 different use patterns. Timing 1 use pattern is used for low to medium weed pressure, and when weeds are small and actively growing. Timing 2 use pattern is used if weed pressure is high and weeds are larger and actively growing.

Table 8A: RESTRICTIONS – Burndown Use Rates in glufosinate-resistant Sugarbeets

Use Pattern	Use Rate: Burndown	Use Rate: In Season	Cumulative Maximum use rate per year
TIMING 1	29 fl. oz./A	1 application at 29 fl. oz./A	60 fl. oz./A
	(0.53 lb. a.i./A)	(0.53 lb. a.i./A)	(1.1 lbs. a.i./A)
TIMING 2	Up to 36 fl. oz./A	1 application at 29 fl. oz./A	60 fl. oz./A
	(0.66 lb. a.i./A)	(0.53 lb. a.i./A)	(1.1 lb. a.i./A)

Apply at least 29 fl. oz./A of **Axill Solutions Glufosinate 280SL** (0.53 lb. a.i./A) just before planting or emergence. If weeds are large or weed pressure is high, due to environmental conditions preventing timely use of **Axill Solutions Glufosinate 280SL**, a single application of up to 36 fl. oz./A (0.66 lb. a.i./A) can be made.

#### **Restrictions:**

- DO NOT apply more than 36 fl. oz./A (0.66 lb. a.i./A) per burndown application.
- **DO NOT** apply more than 36 fl. oz./A (0.66 lb. a.i./A) per year for preplant burndown.
- **DO NOT** make more than 1 burndown application per year.
- Not for use in California.

Table 8B: RESTRICTIONS - Burndown Use Rates in non glufosinate-resistant Sugarbeets

Use Pattern	Use Rate: Burndown	Use Rate: In Season	Cumulative Maximum use rate per year
TIMING 1	29 fl. oz./A	None	36 fl. oz./A
	(0.53 lb. a.i./A)	None	(0.66 lb. a.i./A)
TIMING 2	Up to 36 fl. oz./A	None	36 fl. oz./A
	(0.66 lb. a.i./A)	None	(0.66 lb. a.i./A)

Apply at least 29 fl. oz./A of **Axill Solutions Glufosinate 280SL** (0.53 lb. a.i./A) just before planting or emergence. If weeds are large or weed pressure is high, due to environmental conditions preventing timely use of **Axill Solutions Glufosinate 280SL**, a single application of up to 36 fl. oz./A (0.66 lb. a.i./A) can be made.

#### **Restrictions:**

- **DO NOT** apply more than 36 fl. oz./A (0.66 lb. a.i./A) per burndown application.
- **DO NOT** apply more than 36 fl. oz./A (0.66 lb. a.i./A) per year for preplant burndown.
- **DO NOT** make more than 1 burndown application per year

#### **USE DIRECTIONS FOR FALLOW FIELDS**

**Axill Solutions Glufosinate 280SL** can be applied to fallow fields to control or suppress weeds, as a substitute for tillage in fallow fields. See **WEED LIST C** for a list of targeted weed species.

#### **Use Rate and Timing**

Consult **WEED LIST C** for appropriate application rate based on weed type. Use 22 - 29 fl. oz./A (0.4 - 0.53 lb. a.i./A) on fallow fields for control of target weed species. Mix **Axill Solutions Glufosinate 280SL** with ammonium sulfate for application to fallow fields.

## **Tank Mixes**

To support product performance, **Axill Solutions Glufosinate 280SL** can be mixed with other herbicides registered for use in fallow fields. 2,4-D, atrazine, or glyphosate can be used as tank mix partners. 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 mix.

When using Axill Solutions Glufosinate 280SL in a tank mix, additional surfactant is not required.

## **Restrictions:**

- DO NOT apply more than 29 fl. oz./A (0.53 lb. a.i./A) of Axill Solutions Glufosinate 280SL per year.
- **DO NOT** apply more than 29 fl. oz./A (0.53 lb. a.i./A) in a single application.
- **DO NOT** apply more than 1 application per year.

# WEED LIST C - For Canola, Cotton, Corn (Sweet, Field, and Popcorn), Soybeans, and Fallow Fields

**Table 9** - Rates in fluid ounces of formulated product per acre for the control of weeds as shown in the weed control tables. In weed populations with mixed species, apply at a rate needed for the species targeting less than three inch weeds.

# Broadleaf Weeds Controlled (including Glyphosate-, Triazine-, PPO-, ALS-, HPPD-, and Auxin-Resistant Biotypes)

Common Name         Scientific Name         C=Control S = Suppression         C=Control S = Suppression           Amaranth, Palmer         Amoda cristata         C         C           Anoda, spurred         Anoda cristata         C         C           Black medic         Medicago lupulina L         C         C           Blueweed, Texas         Helianthus ciliaris DC         C         C           C         C         C         C           Burkheat, wild         Polygonum convolvulus         C         C           Burcucumber         Sicyos angulatus         C         C           Canola, volunteer²         Brassica spp.         C²         C           Catchweed bedstraw         Gallium aparine L         C         C           Carpetweed         Mollugo verticiliata         C         C         C           Chickweed, common         Stellaria media         C         C         C           Cotton, volunteer²         Gossyplum spp.         C²         C²         C           Cotton, volunteer²         Gossyplum spp.         C²         C²         C           Cotton, volunteer²         Gossyplum spp.         C²         C²         C²         C           Cotton, volunteer²			22 fl. oz./A (0.4 lb. a.i./A)	29 – 43 fl. oz./A <sup>1</sup> (0.53-0.79 lb. a.i./A)
Common Name   Scientific Name   S = Suppression   S = Suppression   Amaranth, Palmer   Amaranthus palmeri   Not Advised   C   C   C   C   E8ggarweed, Florida   Desmodium tortuosum   C   C   C   C   C   E8ggarweed, Florida   Desmodium tortuosum   C   C   C   C   C   C   EBlueweed, Texas   Helianthus ciliaris DC.   C   C   C   C   C   EBlueweed, Texas   Helianthus ciliaris DC.   C   C   C   C   C   C   C   C   C				
Amaranths palmer	Common Name	Scientific Name		
Anoda spurred   Anoda cristata   C   C   C   C   Elegarweed, Florida   Desmodium tortuosum   C   C   C   C   Ellack medic   Medicago lupulina L   C   C   C   C   Ellack medic   Medicago lupulina L   C   C   C   C   C   Ellack medic   Medicago lupulina L   C   C   C   C   C   Ellack medic   Medicago lupulina L   C   C   C   C   C   C   Ellack medic   Medicago lupulina L   C   C   C   C   C   C   Ellack medic   Ellack medic   C   C   C   C   C   C   Ellack medic   Ellack medical   C   C   C   C   C   C   C   C   C	Amaranth, Palmer	Amaranthus palmeri		
Beggarweed, Florida   Desmodium tortuosum   C				
Black medic   Medicago lupulina L   C   C   C   C   Blueweed, Texas   Helianthus ciliaris DC   C   C   C   C   C   Buffalobur   Solarum convolvulus   C   C   C   C   C   C   Buffalobur   Solarum convolvulus   C   C   C   C   C   C   C   C   C				
Bluewed, Texas				
Buckwheat, wild   Polygonum convolvulus   C   C   C   Bufalobur   Solanum cornutum   C   C   C   C   C   C   C   C   C				
Buffalobur Solonum cornutum C C C C C C Canola, volunteer Sicyos angulatus C C C C Canola, volunteer Brassica spp. C C C C C C C Canola, volunteer Brassica spp. C C C C C C C C C C C C C C C C C C	·			
Burcucumber Sicyos angulatus C C C C C C C C C C C C C C C C C C C		, ,		
Canola, volunteer 2 Brassica spp. C 2 C 2 C 2 C C C C C C C C C C C C C				С
Catchweed bedstraw (cleavers)         Galium aparine L.         C         C           Carpetweed         Mollugo verticillata         C         C           Chickweed, common         Stellaria media         C         C           Cocklebur, common         Xanthium strumarium         C         C           Cocklebur, common         Acalypha ostryaefolia         C         C           Cotton, volunteer 2         Gossyplum spp.         C 2         C 2         C 2           Corton, tropic         Croton glandulosus         C         C         C           Croton, tropic         Croton glandulosus         C         C         C           Croton, tropic         Croton glandulosus         C         C         C           Edipta         Eclipta alba         C         C         C           Devil's claw         Proboscidea Louisiana         C         C         C           Galinsoga, snall flower         Golinsoga parail         C         C         C           Galinsoga, snall flower         Golinsoga parail         C         C         C           Geranium, cutleaf         Geranium dissectrum L.         C         C         C           Geranium, cutleaf         Geranium dissectrum L.				C <sup>2</sup>
Cleavers   Carpetweed		1.7		C
Carpetweed Mollugo verticillata C C C C C Chekeved, common Stellaria media C C C C C C C C C C C C C C C C C C C		Ganam aparme L.	C	C
Cocklebur, common Stellaria media C C C C Cocklebur, common Xanthium strumarium C C C C C C COpperleaf, hophornbeam Acalypha ostryaefolia C C C C C C C C C C C C C C C C C C C	,	Mollugo verticillata	C	C
Cocklebur, common	·	-		
Copperleaf, hophornbeam Cotton, volunteer 2 Gossypium spp. C 2 Croton, tropic Croton, tropic Croton, tropic Croton, propic Croton glandulosus C Croton, wolly Croton capitatus C C Croton, wolly Croton capitatus C C C C C C C C C C C C C C C C C C C	· · · · · · · · · · · · · · · · · · ·			
Cotton, volunteer 2 Gossypium spp. C 2 C C Croton, tropic Croton glandulosus C C C C Croton, woolly Croton capitatus C C C Eclipta Eclipta alba C C C C Eclipta Eclipta Eclipta alba C C C C Eclipta Ec				
Croton, tropic   Croton glandulosus   C   C   C				C 2
Croton, woolly Croton capitatus C C C C Edipta Be Eclipta alba C C C C C C Devil's claw Proboscidea Louisiana C C C C C C C C C C C C C C C C C C	· ·	77 11		
Eclipta		-		
Devil's claw				
Fleabane, annual Erigeron annuus C C C C Galinsoga, hairy Galinsoga ciliate C C C Galinsoga, hairy Galinsoga parviflora C C C Groundcherry, cutleaf Physalis angulate C C C Groundcherry, cutleaf Geranium dissectrum L. C C C Hempnettle Galeopsis spp. C C C Horsenettle, Carolina Solanum carolinense C S C C Solanum carolinense C S C C C Knotweed Polygonum spec. C C C C Knotweed Polygonum spec. C C C C Kochia Kochia scoparia C C C C Ladysthumb Polygonum persicaria C C C C Lambsquarters, common Chenopodium album C C C C Mallow, common Malva spec. C C C C Mallow, renice Hibiscus trionum C C C C Marsh-elder, annual Iva annua C C C C Morningglory, entireleaf Ipomoea hederacea var. intergriuscula C C C C Morningglory, sharppod Ipomoea lacunose C C C C Morningglory, sharppod Ipomoea cordatotriloba C C C C Morningglory, Smallflower Idopmoea cordatotriloba C C C C Mightshade, black Solanum nigrum C C C C Nightshade, eastern black Solanum ptycanthum C C C C Pigweed, prostrate Amaranthus bilitoides C C C Pigweed, prostrate Amaranthus bilitoides C C C Pigweed, prostrate Amaranthus bilitoides C C C Pigweed, prostrate				
Galinsoga, hairy Galinsoga ciliate C C C C Galinsoga, small flower Galinsoga parviflora C C C C C Groundcherry, cutleaf Physalis angulate C C C C Geranium, cutleaf Geranium dissectrum L. C C C C C Geranium, cutleaf Geranium dissectrum L. C C C C C C Hempnettle Galeopsis spp. C C C C C C C Hempnettle Galeopsis spp. C C C C C C C C C C C C C C C C C C				
Galinsoga, small flower Galinsoga parviflora C C C C Groundcherry, cutleaf Physalis angulate C C C C C C C C C C C C C C C C C C C	•	-		
Groundcherry, cutleaf Physalis angulate C C C C Geranium, cutleaf Geranium dissectrum L. C C C Hempnettle Galeopsis spp. C C C Horsenettle, Carolina <sup>3</sup> Solanum carolinense C <sup>3</sup> C <sup>3</sup> Jimsonweed Datura stramonium C C C C Knotweed Polygonum spec. C C C Kochia Kochia scoparia C C C C Ladysthumb Polygonum persicaria C C C C Ladysthumb C C C C C Mallow, common Malva spec. C C C C Mallow, venice Hibiscus trionum C C C C Marestail <sup>3</sup> Conyza Canadensis S C C C C Morningglory, entireleaf Ipomoea hederacea var. intergriuscula C C C C Morningglory, pitte Ipomoea hederacea var. intergriuscula C C C C C Morningglory, pitte Ipomoea lacunose C C C C C C C C C C C C C C C C C C C				
Geranium, cutleaf Geranium dissectrum L. C C C Hempnettle Galeopsis spp. C C C Horsenettle, Carolina 3 Solanum carolinense C 3 C 3 Jimsonweed Datura stramonium C C C Knotweed Polygonum spec. C C Kochia Kochia scoparia C C C Ladysthumb Polygonum persicaria C C C Lambsquarters, common Chenopodium album C C C Mallow, Common Malva spec. C C Mallow, Venice Hibiscus trionum C C C Marsh-elder, annual Iva annua C C C Morningglory, entireleaf Ipomoea hederacea var. intergriuscula C C C Morningglory, jitte Ipomoea hederacea C C C Morningglory, sharppod Ipomoea cordatoriloba C C C Morningglory, shalflower Jacquemontia tamnifolia C C C C Morningglory, tall Lpomoea purpurea C C C C Mightshade, black Solanum nigrum C C C C Nightshade, hairy Solanum serrachoides C C C Pigweed, redroot Amaranthus biltoides C C C Pigweed, prostrate Amaranthus biltoides		i e		
Hempnettle Galeopsis spp. C C C Horsenettle, Carolina 3 Solanum carolinense C 3 C 3  Jimsonweed Datura stramonium C C C C Knotweed Polygonum spec. C C C Kochia Kochia Kochia scoparia C C C Ladysthumb Polygonum persicaria C C C Ladysthumb Polygonum persicaria C C C Lambsquarters, common Chenopodium album C C C C Mallow, common Malva spec. C C C Mallow, Venice Hibiscus trionum C C C C Marsh-elder, annual Iva annua C C C C Morningglory, entireleaf Ipomoea hederacea var. intergriuscula C C C Morningglory, ivyleaf Ipomoea hederacea C C C C Morningglory, pitte Ipomoea hederacea C C C C C Morningglory, Sharppod Ipomoea cordatotriloba C C C C Morningglory, Smallflower Jacquemontia tamnifolia C C C C Morningglory, tall Lpomoea purpurea C C C C C Morshad, wild Sinapis arvensis C C C C C Nightshade, eastern black Solanum ptycanthum C C C C Nightshade, hairy Solanum sarrachoides C C C Pennycress Thlaspi arvense Pigweed, redroot Amaranthus biltoides C C C Pigweed, prostrate Amaranthus biltoides	* *	,		
Horsenettle, Carolina 3 Solanum carolinense C 3 C 3 C 3 Slimsonweed Datura stramonium C C C C C C C C C C C C C C C C C C C	·			
Jimsonweed   Datura stramonium   C   C   C   Knotweed   Polygonum spec.   C   C   C   C   C   C   C   C   C			С	
Knotweed Polygonum spec. C C Kochia Kochia scoparia C C Ladysthumb Polygonum persicaria C C Lambsquarters, common Chenopodium album C C Mallow, common Malva spec. C C Mallow, Venice Hibiscus trionum C C Marestail C C C Marsh-elder, annual Iva annua C C Morningglory, entireleaf Ipomoea hederacea var. intergriuscula C C Morningglory, pitte Ipomoea lacunose C C Morningglory, sharppod Ipomoea cordatotriloba C C Morningglory, smallflower Jacquemontia tamnifolia C C C Morningglory, tall Lpomoea purpurea C C C Mightshade, black Solanum nigrum C C C Nightshade, eastern black Solanum ptycanthum C C C Pennycress Thlaspi arvense C C C Pigweed, prostrate Amaranthus blitoides C C C Pigweed, prostrate Amaranthus blitoides	Horsenettle, Carolina <sup>3</sup>	Solanum carolinense		
KochiaKochia scopariaCCLadysthumbPolygonum persicariaCCLambsquarters, commonChenopodium albumCCMallow, commonMalva spec.CCMallow, VeniceHibiscus trionumCCMarestail 3Conyza CanadensisSCMarsh-elder, annualIva annuaCCMorningglory, entireleafIpomoea hederacea var. intergriusculaCCMorningglory, ivyleafIpomoea hederaceaCCMorningglory, pitteIpomoea lacunoseCCMorningglory, sharppodIpomoea cordatotrilobaCCMorningglory, SmallflowerJacquemontia tamnifoliaCCMorningglory, tallLpomoea purpureaCCMustard, wildSinapis arvensisCCNightshade, blackSolanum nigrumCCNightshade, eastern blackSolanum ptycanthumCCNightshade, hairySolanum sarrachoidesCCPennycressThlaspi arvenseCCPigweed, redrootAmaranthus retroflexusCCPigweed, prostrateAmaranthus blitoidesCC	Jimsonweed	Datura stramonium	С	С
Ladysthumb	Knotweed	Polygonum spec.	С	С
Lambsquarters, common Chenopodium album C C C Mallow, common Malva spec. C C Mallow, Venice Hibiscus trionum C C Marestail 3 Conyza Canadensis S C Marsh-elder, annual Iva annua C C Morningglory, entireleaf Ipomoea hederacea var. intergriuscula C C Morningglory, ivyleaf Ipomoea hederacea C C Morningglory, pitte Ipomoea lacunose C C Morningglory, sharppod Ipomoea cordatotriloba C C Morningglory, Smallflower Jacquemontia tamnifolia C C Morningglory, tall Lpomoea purpurea C C Mustard, wild Sinapis arvensis C C Nightshade, black Solanum nigrum C C Nightshade, eastern black Solanum ptycanthum C C Nightshade, hairy Solanum sarrachoides C C Pennycress Thlaspi arvense C C Pigweed, redroot Amaranthus retroflexus C C Pigweed, prostrate Amaranthus blitoides C C	Kochia	Kochia scoparia	С	С
Mallow, commonMalva spec.CCMallow, VeniceHibiscus trionumCCMarestail 3Conyza CanadensisSCMarsh-elder, annualIva annuaCCMorningglory, entireleafIpomoea hederacea var. intergriusculaCCMorningglory, ivyleafIpomoea hederaceaCCMorningglory, pitteIpomoea lacunoseCCMorningglory, sharppodIpomoea cordatotrilobaCCMorningglory, SmallflowerJacquemontia tamnifoliaCCMorningglory, tallLpomoea purpureaCCMustard, wildSinapis arvensisCCNightshade, blackSolanum nigrumCCNightshade, eastern blackSolanum ptycanthumCCNightshade, hairySolanum sarrachoidesCCPennycressThlaspi arvenseCCPigweed, redrootAmaranthus retroflexusCCPigweed, prostrateAmaranthus blitoidesCC	Ladysthumb	Polygonum persicaria	С	С
Mallow, VeniceHibiscus trionumCCMarestail 3Conyza CanadensisSCMarsh-elder, annualIva annuaCCMorningglory, entireleafIpomoea hederacea var. intergriusculaCCMorningglory, ivyleafIpomoea hederaceaCCMorningglory, pitteIpomoea lacunoseCCMorningglory, sharppodIpomoea cordatotrilobaCCMorningglory, SmallflowerJacquemontia tamnifoliaCCMorningglory, tallLpomoea purpureaCCMustard, wildSinapis arvensisCCNightshade, blackSolanum nigrumCCNightshade, eastern blackSolanum ptycanthumCCNightshade, hairySolanum sarrachoidesCCPennycressThlaspi arvenseCCPigweed, redrootAmaranthus retroflexusCCPigweed, prostrateAmaranthus blitoidesCC	Lambsquarters, common	Chenopodium album	С	С
Marestail 3Conyza CanadensisSCMarsh-elder, annualIva annuaCCMorningglory, entireleafIpomoea hederacea var. intergriusculaCCMorningglory, ivyleafIpomoea hederaceaCCMorningglory, pitteIpomoea lacunoseCCMorningglory, sharppodIpomoea cordatotrilobaCCMorningglory, SmallflowerJacquemontia tamnifoliaCCMorningglory, tallLpomoea purpureaCCMustard, wildSinapis arvensisCCNightshade, blackSolanum nigrumCCNightshade, eastern blackSolanum ptycanthumCCNightshade, hairySolanum sarrachoidesCCPennycressThlaspi arvenseCCPigweed, redrootAmaranthus retroflexusCCPigweed, prostrateAmaranthus blitoidesCC	Mallow, common	Malva spec.	С	С
Marsh-elder, annualIva annuaCCMorningglory, entireleafIpomoea hederacea var. intergriusculaCCMorningglory, ivyleafIpomoea hederaceaCCMorningglory, pitteIpomoea lacunoseCCMorningglory, sharppodIpomoea cordatotrilobaCCMorningglory, SmallflowerJacquemontia tamnifoliaCCMorningglory, tallLpomoea purpureaCCMustard, wildSinapis arvensisCCNightshade, blackSolanum nigrumCCNightshade, eastern blackSolanum ptycanthumCCNightshade, hairySolanum sarrachoidesCCPennycressThlaspi arvenseCCPigweed, redrootAmaranthus retroflexusCCPigweed, prostrateAmaranthus blitoidesCC	Mallow, Venice	Hibiscus trionum	С	С
Morningglory, entireleafIpomoea hederacea var. intergriusculaCCMorningglory, ivyleafIpomoea hederaceaCCMorningglory, pitteIpomoea lacunoseCCMorningglory, sharppodIpomoea cordatotrilobaCCMorningglory, SmallflowerJacquemontia tamnifoliaCCMorningglory, tallLpomoea purpureaCCMustard, wildSinapis arvensisCCNightshade, blackSolanum nigrumCCNightshade, eastern blackSolanum ptycanthumCCNightshade, hairySolanum sarrachoidesCCPennycressThlaspi arvenseCCPigweed, redrootAmaranthus retroflexusCCPigweed, prostrateAmaranthus blitoidesCC	Marestail <sup>3</sup>	Conyza Canadensis	S	С
Morningglory, ivyleafIpomoea hederaceaCCMorningglory, pitteIpomoea lacunoseCCMorningglory, sharppodIpomoea cordatotrilobaCCMorningglory, SmallflowerJacquemontia tamnifoliaCCMorningglory, tallLpomoea purpureaCCMustard, wildSinapis arvensisCCNightshade, blackSolanum nigrumCCNightshade, eastern blackSolanum ptycanthumCCNightshade, hairySolanum sarrachoidesCCPennycressThlaspi arvenseCCPigweed, redrootAmaranthus retroflexusCCPigweed, prostrateAmaranthus blitoidesCC	Marsh-elder, annual	Iva annua	С	С
Morningglory, pitteIpomoea lacunoseCCMorningglory, sharppodIpomoea cordatotrilobaCCMorningglory, SmallflowerJacquemontia tamnifoliaCCMorningglory, tallLpomoea purpureaCCMustard, wildSinapis arvensisCCNightshade, blackSolanum nigrumCCNightshade, eastern blackSolanum ptycanthumCCNightshade, hairySolanum sarrachoidesCCPennycressThlaspi arvenseCCPigweed, redrootAmaranthus retroflexusCCPigweed, prostrateAmaranthus blitoidesCC	Morningglory, entireleaf	Ipomoea hederacea var. intergriuscula	С	С
Morningglory, sharppodIpomoea cordatotrilobaCCMorningglory, SmallflowerJacquemontia tamnifoliaCCMorningglory, tallLpomoea purpureaCCMustard, wildSinapis arvensisCCNightshade, blackSolanum nigrumCCNightshade, eastern blackSolanum ptycanthumCCNightshade, hairySolanum sarrachoidesCCPennycressThlaspi arvenseCCPigweed, redrootAmaranthus retroflexusCCPigweed, prostrateAmaranthus blitoidesCC	Morningglory, ivyleaf	Ipomoea hederacea	С	С
Morningglory, SmallflowerJacquemontia tamnifoliaCCMorningglory, tallLpomoea purpureaCCMustard, wildSinapis arvensisCCNightshade, blackSolanum nigrumCCNightshade, eastern blackSolanum ptycanthumCCNightshade, hairySolanum sarrachoidesCCPennycressThlaspi arvenseCCPigweed, redrootAmaranthus retroflexusCCPigweed, prostrateAmaranthus blitoidesCC	Morningglory, pitte	Ipomoea lacunose	С	С
Morningglory, tall       Lpomoea purpurea       C       C         Mustard, wild       Sinapis arvensis       C       C         Nightshade, black       Solanum nigrum       C       C         Nightshade, eastern black       Solanum ptycanthum       C       C         Nightshade, hairy       Solanum sarrachoides       C       C         Pennycress       Thlaspi arvense       C       C         Pigweed, redroot       Amaranthus retroflexus       C       C         Pigweed, prostrate       Amaranthus blitoides       C       C	Morningglory, sharppod	Ipomoea cordatotriloba	С	С
Mustard, wild       Sinapis arvensis       C       C         Nightshade, black       Solanum nigrum       C       C         Nightshade, eastern black       Solanum ptycanthum       C       C         Nightshade, hairy       Solanum sarrachoides       C       C         Pennycress       Thlaspi arvense       C       C         Pigweed, redroot       Amaranthus retroflexus       C       C         Pigweed, prostrate       Amaranthus blitoides       C       C	Morningglory, Smallflower	Jacquemontia tamnifolia	С	С
Nightshade, black       Solanum nigrum       C       C         Nightshade, eastern black       Solanum ptycanthum       C       C         Nightshade, hairy       Solanum sarrachoides       C       C         Pennycress       Thlaspi arvense       C       C         Pigweed, redroot       Amaranthus retroflexus       C       C         Pigweed, prostrate       Amaranthus blitoides       C       C	Morningglory, tall	Lpomoea purpurea	С	С
Nightshade, eastern black       Solanum ptycanthum       C       C         Nightshade, hairy       Solanum sarrachoides       C       C         Pennycress       Thlaspi arvense       C       C         Pigweed, redroot       Amaranthus retroflexus       C       C         Pigweed, prostrate       Amaranthus blitoides       C       C	Mustard, wild	Sinapis arvensis	С	С
Nightshade, eastern black       Solanum ptycanthum       C       C         Nightshade, hairy       Solanum sarrachoides       C       C         Pennycress       Thlaspi arvense       C       C         Pigweed, redroot       Amaranthus retroflexus       C       C         Pigweed, prostrate       Amaranthus blitoides       C       C			С	С
Nightshade, hairy       Solanum sarrachoides       C       C         Pennycress       Thlaspi arvense       C       C         Pigweed, redroot       Amaranthus retroflexus       C       C         Pigweed, prostrate       Amaranthus blitoides       C       C				
Pennycress     Thlaspi arvense     C     C       Pigweed, redroot     Amaranthus retroflexus     C     C       Pigweed, prostrate     Amaranthus blitoides     C     C				
Pigweed, redroot       Amaranthus retroflexus       C       C         Pigweed, prostrate       Amaranthus blitoides       C       C				
Pigweed, prostrate Amaranthus blitoides C C	-			
Pigweed, spiny Amaranthus spinosus C C			С	
Pigweed, smooth Amaranthus hybridus C C				

		22 fl. oz./A (0.4 lb. a.i./A)	29 – 43 fl. oz./A <sup>1</sup> (0.53-0.79 lb. a.i./A)
Common Name	Scientific Name	C=Control S = Suppression	C=Control S = Suppression
Pigweed, tumble	Amaranthus albus	С	С
Puncturevine	Tribulus terrestris	С	С
Purslane, common	Portulaca oleracea	С	С
Pusley, Florida	Richardia scabra	S	С
Ragweed, common	Ambrosia artemisiifolia	С	С
Ragweed, giant	Ambrosia trifida	С	С
Senna coffee	Cassia occidentalis	С	С
Sesbania, hemp	Sesbania herbacea	С	С
Shepherd's-Purse	Capsella bursa-pastoris	С	С
Sicklepod (java bean)	Senna obtusifolia	С	С
Sida, prickly	Sida spinosa L.	С	С
Smartweed, Pennsylvania	Polygonum pensylvanicum	С	С
Smell melon	Cucumis melo L. var. Dudaim	С	С
Sowthistle, annual	Sonchus oleraceus L.	С	С
Soybeans, volunteer <sup>2</sup>	Glycine max	C <sup>2</sup>	C <sup>2</sup>
Spurge, prostrate	Euphorbia humifusa	С	С
Spurge, spotted	Euphorbia maculate L.	С	С
Starbur, bristly	Acanthospermum hispidum	С	С
Sunflower, common	Helianthus annuus	С	С
Sunflower, prairie	Corythucha pura	С	С
Sunflower, volunteer	Girassol	С	С
Thistle, Russian <sup>3</sup>	Salsola kali	S <sup>3</sup>	C <sup>3</sup>
Velvetleaf	Abutilon theophrasti	С	С
Waterhemp, common	Amaranthus rudis	Not Advised	С
Waterhemp, tall	Amaranthus tuberculatos	Not Advised	С

- 1 Maximum rate on canola, field corn, sweet corn and soybean in California is 36 fl oz/A (0.66 lb ai/A).
- 2 Volunteer glufosinate-resistant crops from the previous year will not be controlled.
- 3 May require sequential applications for control.
- ${\bf 4}$  For optimum control apply  ${\bf Axill}$   ${\bf Solutions}$   ${\bf Glufosinate}$   ${\bf 280SL}$  on  ${\bf 6}''$  marestail

# Grass Weeds Controlled (including Glyphosate-, Triazine-, PPO-, ALS-, HPPD-, and Auxin-Resistant Biotypes)

		22 fl. oz./A	29 – 43 fl. oz./A <sup>1</sup>
		(0.4 lb. a.i./A)	(0.53-0.79 lb. a.i./A)
		C=Control	C=Control
Common Name	Scientific Name	S = Suppression	S = Suppression
Barley, volunteer <sup>3</sup>		C <sup>3</sup>	C <sub>3</sub>
Barnyardgrass	Echinochloa spec.	С	С
Bluegrass, annual	Poa annua L.	С	С
Corn, volunteer <sup>2</sup>	Zea mays L.	C <sup>2</sup>	C <sup>2</sup>
Crabgrass, large 4	Digitaria sanguinalis	C <sup>4</sup>	C 4
Crabgrass, smooth <sup>4</sup>	Digitaria ischaemum	C <sup>4</sup>	C <sup>4</sup>
Cupgrass, woolly	Eriochloa villosa	С	С
Foxtail, bristly	Setaria verticillata	С	С
Foxtail, giant	Setaria faberi	С	С
Foxtail, green	Setaria viridis	С	С
Foxtail, robust purple	Setaria viridis	С	С
Foxtail, yellow <sup>4</sup>	Pennisetum glaucum	C <sup>4</sup>	C 4
Goosegrass <sup>3</sup>	Eleusine indica	C <sup>3</sup>	C <sup>3</sup>
Johnsongrass, seedling	Sorghum halepense	С	С
Junglerice	Echinochloa colonum	С	С
Millet, wild-proso	Panicum miliaceum L.	С	С

Common Name	Scientific Name	22 fl. oz./A (0.4 lb. a.i./A) C=Control	29 – 43 fl. oz./A <sup>1</sup> (0.53-0.79 lb. a.i./A) C=Control
		S = Suppression	S = Suppression
Millet, proso volunteer	Milium vernale	С	С
Oat, wild <sup>4</sup>	Avena fatua	C <sup>4</sup>	C 4
Panicum, fall	Panicum dichotomiflorum	С	С
Panicum, Texas	Panicum texanum	С	С
Rice, red	Oryza sativa L.	С	С
Sandbur, field ⁴	Cenchrus pauciflorus	S <sup>4</sup>	C 4
Shattercane	Sorghum vulgare PERS.	С	С
Signalgrass, broadleaf	Brachiaria platyphylla	С	С
Sprangletop	Leptochloa spec.	С	С
Sorghum, volunteer	Sorghum spp.	С	С
Stinkgrass	Eragrostis cilianensis	C	С
Wheat, volunteer 3, 4	Triticum spec.	C 3, 4	C 3, 4
Witchgrass	Panicum virgatum L.	С	С

- 1 Maximum rate on canola, field corn, sweet corn and soybean in California is 36 fl oz/A (0.66 lb ai/A).
- <sup>2</sup> Volunteer glufosinate-resistant crops from the previous year will not be controlled. A timely cultivation 7 to 10 days after an application and/or retreatment 10-21 days after the first application is needed for controlling dense clumps of volunteer corn.
- 3 May require sequential applications for control.
- 4 For best control of yellow foxtail, field sandbur, crabgrass, and wild oats, treat prior to tiller initiation.

#### **Biennial and Perennial Weeds Controlled**

(including Glyphosate-, Triazine-, PPO-, ALS-, HPPD-, and Auxin-Resistant Biotypes)

For control of the biennial and perennial weeds listed below, tank mix partners or sequential applications of Axill Solutions

Glufosinate 280SL are specified by crop (see crop sections) 29 – 43 fl. oz./A <sup>1</sup> (0.53-0.79 lb. a.i./A) **Common Name** Scientific Name C=Control S = Suppression Alfalfa Medicago sativa L. C Bermudagrass Cynodon dactylon С Bindweed, field Convolvulus arvensis L. C Bindweed, hedge Calystegia sepium С С Bluegrass, Kentucky Poa pratensis L. Blueweed, Texas Helianthus ciliaris DC. C Bromegrass, smooth Bromus inermis C Burdock Arctium spp. С Bursage, woollyleaf С Ambrosia grayi Chickweed, Mouse-ear Cerastium vulgatum L. C Clover, red Trifolium pretense L. C С Dandelion Taraxacum officinale Dock, smooth C Rumex spec. Dogbane, hemp Apocynum cannabinum S Goldenrod, gray S Solidago nemoralis C Johnsongrass, rhizome Sorghum halepense Milkweed, common Asclepias syriaca S Milkweed, honeyvine Ampelamus albidus S S Muhly, wirestem Muhlenbergia frondosa Nightshade, silverleaf Solanum elaeagnifolium C Nutsedge, purple Cyperus rotundus S S Nutsedge, yellow Cyperus ferax Dactylis glomerata L. C Orchardgrass Euphorbia heterophylla L. Poinsettia, wild C C Pokeweed Phytolaccaceae Quackgrass S Agropyron repens Sowthistle, perennial Sonchus arvensis L. C

For control of the biennial and perennial weeds listed below, tank mix partners or sequential applications of Axill Solutions Glufosinate 280SL are specified by crop (see crop sections)		
		29 – 43 fl. oz./A <sup>1</sup>
		(0.53-0.79 lb. a.i./A)
Common Name	Scientific Name	C=Control
		S = Suppression
Thistle, bull	Cirsium vulgare	С
Thistle, Canada	Cirsium arvense	С
Timothy	Phleum pretense L.	S
Wormwood, biennial	Artemisia biennis	S

<sup>1</sup> Maximum rate on canola, field corn, sweet corn and soybean in California is 36 fl oz/A (0.66 lb ai/A).

#### USE DIRECTIONS FOR POTATO VINE DESICCATION

Axill Solutions Glufosinate 280SL can be used to desiccate potato vines once the vines reach senescence.

#### **Use Rate and Timing**

Apply **Axill Solutions Glufosinate 280SL** at the rate of 21 fl. oz./A (0.38 lb. a.i./A). If a particular potato variety has a heavy or dense vine, an application of another desiccation product may be necessary for total desiccation of the potato vine.

Apply the indicated amount of **Axill Solutions Glufosinate 280SL** in enough water (20 - 100 gals. per acre) to thoroughly cover the potato vines. Take into account the density of the potato vine and increase or decrease spray volume as necessary to achieve complete coverage.

#### Important:

- It is essential to obtain thorough coverage of the potato vine for adequate desiccation. Make sure the spray boom is operated as low as possible to achieve thorough coverage (this also minimizes any potential for drift)
- If climate conditions are cool and dry, or if potato vine canopy is heavy, make sure to use a spray volume of at least 30 gals. of water per acre

#### **Restrictions:**

- DO NOT apply more than 21 fl. oz./A (0.38 lb. a.i./A) of Axill Solutions Glufosinate 280SL to potato vines per year.
- **DO NOT** apply more than 21 fl. oz./A (0.38 lb. a.i./A) in a single application.
- **DO NOT** apply a split application.
- **DO NOT** apply more than 1 application per year.
- Apply after the potato vine enters its natural senescence period
- Pre-harvest interval is 9 days.
- The product can be applied to potatoes grown for seed.

**Table 10** - Crop rotation and plantback intervals after application of **Axill Solutions Glufosinate 280SL** for potato vine desiccation are as follows:

Стор	Minimum Rotation Interval
All crops other than those listed in this table	120 Days
Barley, Buckwheat, Millet, Oats, Rye, Sorghum, Triticale, Wheat	30 Days
Canola, Corn, Cotton, Soybean, Sugar Beets	0 days

# **USE DIRECTIONS FOR CANOLA SEED PROPAGATION**

During canola seed propagation, to eliminate vulnerable canola segregates that are not resistant to glufosinate-ammonium, apply **Axill Solutions Glufosinate 280SL** as a foliar spray, as indicated in the chart below. If canola is injured or adversely affected by environmental stress (for example: excessive rainfall, drought, pest pressure, etc.) or prior herbicide application, **DO NOT** apply **Axill Solutions Glufosinate 280SL**. If canola is injured or adversely affected by environmental stress (for example: excessive rainfall, drought, pest pressure, etc.) or prior herbicide application, **DO NOT** apply **Axill Solutions Glufosinate 280SL**.

**Table 11: RESTRICTIONS – Canola Seed Propagation** 

Axill Solutions Glufosinate 280SL Use Rate		Canola Growth Stage
APPLICATION 1	29 fl. oz./A (0.53 lb. a.i./A)	Cotyledon stage up to early bolt stage (BBCH 18-30; just prior to stem
APPLICATION 2	29 fl. oz./A (0.53 lb. a.i./A)	elongation/bolting (8 or more leaves) through beginning of stem elongation (no
APPLICATION 3	29 fl. oz./A (0.53 lb. a.i./A)	internode)).

- DO NOT make more than 3 applications of Axill Solutions Glufosinate 280SL to canola per year.
- **DO NOT** reapply within 10 days of previous application.
- **DO NOT** apply more than 29 fl. oz./A (0.53 lb. a.i./A) per application.
- **DO NOT** apply more than 87 fl. oz./A (1.59 lbs. a.i./A) per year.
- Pre-harvest interval is 65 days.
- DO NOT apply through any type of irrigation system.
- **DO NOT** use treated canola seed for food, feed, or oil purposes.

#### USE DIRECTIONS FOR CORN, COTTON, AND SOYBEAN SEED PROPAGATION

During seed propagation, vulnerable "segregates" (plants not resistant to glufosinate-ammonium) of corn, cotton and soybean can be selected out by application of **Axill Solutions Glufosinate 280SL**.

#### **CORN**

To pick out resistant segregates, apply **Axill Solutions Glufosinate 280SL** as indicated in the chart below. Corn plants not resistant to glufosinate-ammonium will be seriously injured or killed. To protect plants from **Axill Solutions Glufosinate 280SL**, apply herbicide with a hooded sprayer.

Table 12: RESTRICTIONS - Corn Seed Propagation

Axill Solutions Glufosinate 280SL Use Rate		Additive*	Corn Growth Stage
APPLICATION 1	22 fl. oz./A (0.4 lb. a.i./A)	AMS - 3 lb./A	V3 - V4 (3 - 4 developed collars)
APPLICATION 2	22 fl. oz./A (0.4 lb. a.i./A)	AMS - 3 lb./A	V6 - V7
*AMS - Ammonium Sulfate; Reduce rate of AMS to 1.5 lbs./A when temperatures exceed 85°F, to limit possibility of leaf burn.			

#### **Restrictions:**

- DO NOT make more than 2 applications per year of Axill Solutions Glufosinate 280SL at 22 fl. oz./A (0.4 lb. a.i./A).
- **DO NOT** apply more than 22 fl. oz./A (0.40 lb. a.i./A) in a single application.
- **DO NOT** exceed the max yearly application rate of 44 fl. oz./A (0.8 lb. a.i./A).
- **DO NOT** reapply within 10 days of previous application.

#### **COTTON**

During cotton seed propagation, to eliminate vulnerable cotton segregates that are not resistant to glufosinate-ammonium, apply **Axill Solutions Glufosinate 280SL** as a foliar spray, as indicated in the chart below. Two or three applications can be made, at least 10 days apart. Timing 1 can be used if weeds are particularly large or weed pressure is high due to environmental conditions preventing timely use of **Axill Solutions Glufosinate 280SL**. Use Timing 2 when making a timely application, under normal pest pressure.

Table 13: TIMING 1 RESTRICTIONS – Cotton Seed Propagation

Axill Solutions Glufosinate 280SL Use Rate		Cotton Growth Stage
APPLICATION 1	30 - 43 fl. oz./A (0.55 - 0.79 lb. a.i./A)	Emarganas un ta carly bloom
APPLICATION 2	22 - 29 fl. oz./A (0.4 - 0.53 lb. a.i./A)	Emergence, up to early bloom.

#### Restrictions:

- DO NOT make more than 2 applications per year of Axill Solutions Glufosinate 280SL.
- **DO NOT** apply more than 43 fl. oz./A (0.34 lb. a.i./A) in a single application.
- **DO NOT** exceed the max yearly application rate of 72 fl. oz./A (1.26 lbs. a.i./A) when applied at reduced rates.
- **DO NOT** reapply within 10 days of previous application.

Table 14: TIMING 2 RESTRICTIONS - Cotton Seed Propagation

Axill Solutions Glufosinate 280SL Use Rate		Cotton Growth Stage
APPLICATION 1	22 - 29 fl. oz./A (0.4 - 0.53 lb. a.i./A)	
APPLICATION 2	22 - 29 fl. oz./A (0.4 - 0.53 lb. a.i./A)	Emergence, up to early bloom.
APPLICATION 3	22 - 29 fl. oz./A (0.4 - 0.53 lb. a.i./A)	

#### **Restrictions:**

- DO NOT make more than 3 applications of Axill Solutions Glufosinate 280SL at 29 fl. oz./A (0.53 lb. a.i./A).
- **DO NOT** apply more than 29 fl. oz./A (0.53 lb. a.i./A) in a single application.
- **DO NOT** exceed the max yearly application rate of 87 fl. oz./A (1.59 lbs. a.i./A).
- **DO NOT** reapply within 10 days of previous application.

#### **SOYBEANS**

To pick out resistant soybean segregates, apply **Axill Solutions Glufosinate 280SL** as indicated in the chart below. A second application, at least 5 days later, may be used, if needed.

Table 15: RESTRICTIONS - Soybean Seed Propagation

Axill Solutions Glufosinate 280SL Use Rate		Soybean Growth Stage	
APPLICATION 1	29 – 43* fl. oz./A (0.53 – 0.79 lb. a.i./A)	Third trifoliate stage.	
APPLICATION 2	29 – 43* fl. oz./A (0.53 – 0.79 lb. a.i./A)	Up to (but not including) bloom.	

<sup>\*</sup>Maximum rate in California is 36 fl. oz./A (0.66 lb a.i./A)

- DO NOT make more than 2 applications of Axill Solutions Glufosinate 280SL within a 1-year period.
- DO NOT apply more than 43 fl. oz./A (0.79 lb. a.i./A) per application. The maximum application rate in California is 36 fl. oz./A
  (0.66 lb. a.i./A)
- DO NOT exceed the max yearly application rate of 86 fl. oz./A (1.58 lbs. a.i./A).
- **DO NOT** reapply within 5 days of previous application.

#### **USE DIRECTIONS FOR NON-CROP USES**

**Axill Solutions Glufosinate 280SL** is a non-selective water-soluble herbicide for application as a foliar spray for the control of a broad spectrum of emerged annual and perennial grass and broadleaf weeds. Plants that have not yet emerged at the time of application will not be controlled. THOROUGH SPRAY COVERAGE IS IMPORTANT. Visual effects and control from application of this product occur within 2 - 4 days after application under good growing conditions.

This product is non-selective and will injure or kill all green vegetation contacted by the spray. **DO NOT** allow contact with foliage or green tissue of desirable vegetation. **DO NOT** allow direct spray or drift onto green, thin, or uncalloused bark of desirable vegetation or plant injury may result. If desirable vegetation is contacted, rinse sprayed portion with water immediately.

#### WHERE TO APPLY

Axill Solutions Glufosinate 280SL may be used on the following: access roads, airfields, airports, alleys, along fences and fence lines, around commercial or industrial structures or outbuildings, around farm and ranch structures and outbuildings, around ornamental gardens, around ornamental trees and shrubs (including Christmas trees), bare ground, barrier strips, beaches\*, campgrounds, canals, commercial/industrial plant sites, Conservation Reserve Program (CRP)\*, construction sites, ditches and ditch banks, drive-in theaters, driveways, dry ditches, fencerows, firebreaks, fuel storage areas, golf courses (excluding greens, tees, aprons, fairways, and roughs)\*, gravel yards, habitat restoration and management areas, highways and roadsides (including aprons, medians, guardrails, and right of ways), industrial areas, industrial plant sites, landscapes, lanes, lumberyards, mulched areas, natural areas and brush control, nurseries, parking areas, parks, paths, paved areas, petroleum and other tank farms, pipeline, power, telephone, and utility rights of way, power stations, pre-plant to turf and ornamental plants, pumping installations, pumping stations, railroad rights of way, ramps, recreation areas, refineries, sewage disposal areas, shelter belts, sidewalks, site preparation areas for conifer and hardwood, storage areas, substations, tennis courts, trails, uncropped farmstead areas, vacant lots, walkways, wastelands, wildlife habitat areas, wildlife openings.

[\*Not for use in California.]

#### **Restrictions For Non-Crop Use:**

- **DO NOT** apply this product through any type of irrigation system.
- DO NOT apply directly to or allow drift to contact desirable green tissue or green, thin, or uncalloused bark of desirable vegetation.
- **DO NOT** allow grazing of vegetation treated with this product.
- **DO NOT** apply more than 246 fl. oz. of this product per acre per year (4.5 lbs. a.i./A/year).
- DO NOT apply more than 82 fl. oz. of this product per acre per single application (1.5 lbs. a.i./A/application).
- **DO NOT** apply more than a total of 3 broadcast applications per year.
- **DO NOT** apply more than 2 applications per year on Dormant bermudagrass.
- **DO NOT** reapply within 14 days of previous application in non-crop areas.
- **DO NOT** apply to residential areas or areas where crops may be grown.

#### **Restrictions for Non-Crop Use - Spot or Directed Applications:**

- DO NOT apply beyond runoff.
- DO NOT spray during windy conditions.
- **DO NOT** exceed single maximum and yearly maximum broadcast use rates.
- DO NOT make more than 3 spot treatment applications to same 1,000 sq. ft. area per year.
- **DO NOT** apply more than 82 fl. oz of product per acre (1.5 lbs a.i./A) or 1.9 fl. oz. of product per 1,000 sq. ft. (0.03 lbs a.i./1,000 sq. ft.) per single spot treatment.
- **DO NOT** apply more than 246 fl. oz. of this product per acre (4.5 lbs. a.i./A) or 5.7 fl. oz. of product per 1,000 sq. ft. (0.09 lbs a.i.) per year.

## WHEN TO APPLY

**Axill Solutions Glufosinate 280SL** is a foliar-active material and works best when weeds are actively growing. Weed control may be reduced when applications are made to weeds under stress due to drought or cool temperatures. Weeds under stress or in dense populations will require application of the highest rate indicated.

Always apply this product at the labeled rate in **HOW TO APPLY**. Repeat applications or tank mixes of **Axill Solutions Glufosinate 280SL** plus 1 or more appropriate residual herbicides will be needed to control weeds emerging from underground parts or seeds.

#### **MIXING INSTRUCTIONS**

**Axill Solutions Glufosinate 280SL** must be mixed with water to make a finished spray solution. Fill the spray tank with water, start agitation, add the appropriate amount of product then mix thoroughly.

#### **HOW TO APPLY**

# **Spot or Directed Applications**

Apply 0.4 - 0.75 fl. oz. (0.007 - 0.014 lb. a.i.) per gallon of water. Use rate depends on weed and stage of growth as shown in the following sections. Spray undesirable vegetation foliage on a spray-to-wet basis. Ensure uniform and complete coverage. Use a coarse spray. Backpack, pump-up, and hydraulic sprayers may be used. Thoroughly clean the sprayer following use.

#### **Broadcast or Boom Applications**

Apply 12 - 38 fl. oz. (0.22 - 0.69 lb. a.i./A) per acre in a minimum of 40 gals. of water. Use rate depends on weed and stage of growth in the following section. Use 30-PSI spray pressure minimum.

#### **Aerial Applications**

Apply as a foliar treatment using a minimum of 5 gals. of water per acre to ensure thorough coverage. **DO NOT** apply when winds are gusty or under conditions which favor drift on to desirable vegetation. Applications under conditions which cause drift of this product will result in damage to any vegetation contacted. Drift control additives may be used. If a drift control additive is used, observe, and follow all directions and precautions as specified on the additive label.

#### **Tank Mix Directions for Non-Crop Uses**

**Axill Solutions Glufosinate 280SL** is compatible in tank mixes with many other herbicides including non-selective herbicides. 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 applications of **Axill Solutions Glufosinate 280SL** plus the following herbicides are advised for broad-spectrum post-emergence and pre-emergence weed control:

Isopropylamine salt of imazapyr	butroxydim	norflurazon
prodiamine	isoxaben	Diglycolamine salt of 3,6-dichloro-o-anisic Acid
oryzalin	pendimethalin	oxadiazon

A compatibility test must be conducted with any potential tank mix partner with **Axill Solutions Glufosinate 280SL**, except with any 1 of those listed above. Using a clear glass quart jar, conduct the test as described below:

- 1. Fill the jar 3/4 full with water.
- 2. Add the appropriate amount of herbicide in the following order: (a) dry flowable, (b) wettable powder, (c) aqueous suspensions, (d) flowables, (e) liquids and (f) solutions and emulsifiable or liquid concentrates. Shake or gently stir jar after each addition to thoroughly mix.
- 3. After adding ail ingredients, let the mixture stand for 15 minutes and then look for separation, large flakes, precipitates, gels, and heavy oily film on the jar or other signs of incompatibility.
- 4. If the compatibility test shows signs of incompatibility, tank mix the product tested with Axill Solutions Glufosinate 280SL.

# For the following Weeds Controlled by Axill Solutions Glufosinate 280SL Apply:

- Broadleaf Weeds: Chickweed, Clover, Common cocklebur, Filaree, Jimsonweed, Kochia, London rocket, Malva (little mallow), Marestail, Purslane, Shepherd's purse, Smartweed
- Grasses and Sedges: Barnyardgrass, Cupgrass, Fall Panicum, Giant Foxtail, Goosegrass, Green Foxtail, Johnsongrass (rhizome), Lovegrass, Shattercane, Smallflower Alexandergrass (Signalgrass), stinkgrass, Windgrass, Yellow foxtail
- Spot Application (1,000 sq. ft.): Apply 0.75 fl. oz./gal. of water (0.014 lb. a.i./gal. of water) when the weed height or diameter is less than 6 inches. Apply 1.25 fl. oz./ gallon of water (0.023 lb. a.i./gal. of water) when the weed height or diameter is 6 inches or greater.
- **Broadcast Application:** Apply 40 fl. oz./A (0.73 lb. a.i./A) when the weed height or diameter is less than 6 inches. Apply 56 fl. oz./A (1.02 lb. a.i./A) when the weed height or diameter is 6 inches or greater.

# For The Following Weeds Controlled by Axill Solutions Glufosinate 280SL Apply:

- Broadleaf Weeds: Annual sowthistle, Bindweed, Buffalobur, Burdock, Canada thistle, Curly dock, Dandelion, Dogbane, (hemp), Field gromwell, Fleabane, Goldenrod, Horsetail, Lambsquarters, Leafy spurge, Mugwort, Musk thistle, Nettle, Nightshade, Pennycress, Pigweed (redroot), Plantain, Prickly lettuce, ragweed, Russian thistle, Tansy mustard, Velvetleaf, Vervain, Virginia copperleaf, White heath aster, Wild buckwheat, Wild mustard, Wild onion, Wild rose, Wild turnip, Woodsorrel, Yellow rocket
- Grasses and Sedges: Annual bluegrass, Bahiagrass, Barley, Bermudagrass, Carpetgrass, Crabgrass, Dallisgrass, Downy bromegrass, Fescue, Guineagrass, Kentucky bluegrass, nutsedge, Paragrass, Quackgrass, Ryegrass, Sandbur, Smooth Bromegrass, Torpedograss, Vaseygrass, Wheat, Wild oat
- Spot Application (1,000 sq. ft.): Apply 1.25 fl. oz./gal. of water (0.023 lb. a.i./gal. of water) when the weed height or diameter is less than 6 inches. Apply 1.75 fl. oz./gal. of water (0.032 lb. a.i./gal. of water) when the weed height or diameter is 6 inches or greater.
- **Broadcast Application:** Apply 56 fl. oz./A (1.02 lbs. a.i./A) when the weed height or diameter is less than 6 inches tall. Apply 80 fl. oz./A (1.46 lbs. a.i./A) when the weed height or diameter is 6 inches or greater.

# **Additional Use Directions**

- 1. Use higher rates within the directed rate range for plant sizes listed when vegetation cover is dense or when weeds are grown under stressed conditions including drought or when average temperature are below 50°F.
- 2. The addition of 8.5 17 lbs. of ammonium sulfate (spray grade) per 100 gals. of water (1% 2% by weight) or 2 4 lbs. of ammonium sulfate per acre may improve the level of weed control.

#### Use on Woody Species [Not for Use in California.]

When applied as labeled, **Axill Solutions Glufosinate 280SL** will provide control, partial control, or suppression of certain perennial woody weed species. Apply 64 - 82 fl. oz./A (1.17 - 1.5 lb. a.i./A). Use the higher specified rates per acre of this product when conditions are not optimum for spray penetration, including when vegetation growth is heavy or dense. Lower specified rates may be used when the target species is a conifer and when vegetation growth conditions allow for uniform spray coverage.

Blackberry Rubus spp.

Deer brush Ceanothus integerrimus
Douglas fir Pseudotsuga menziesii

Gallberry *llex* spp. Hazel Corylus spp. Honeysuckle Lonicera spp. Huckleberry Gaylussacia spp. Maple Acer spp. Multiflora rose Rosa multiflora Oak Quercus spp. Pine Pinus spp.

Poison ivy Toxicodendron radicans
Poison oak Toxicodendron toxicarium

Roundleaf greenbrier Smilax rotundifolia
Salmonberry Rubus spectabilis
Sweet gum Liquidambar styraciflua

Sumac Rhus spp.
Thimbleberry Rubus parviflorus
Trumpetcreeper Campsis radicans
Vine maple Acer circinatum
Western red cedar Thuja plicata

#### Conservation Reserve Program (CRP)[\*]

**Axill Solutions Glufosinate 280SL** may be used to suppress competitive growth and seed production of undesirable vegetation when rotating out of CRP acres. Apply 48 - 56 fl. oz. (0.87 – 1.02 lb. a.i.) per acre of **Axill Solutions Glufosinate 280SL** in early spring, before CRP grasses break dormancy and initiate growth. Late fall applications may be made after desirable perennial grasses have reached dormancy. Some stunting of CRP perennial grasses may occur if applications are made when plants are not dormant. [\*Not for use in California]

# **Trimming and Edging**

**Axill Solutions Glufosinate 280SL** may be used for trimming and edging areas listed under the **WHERE TO APPLY** section. For control of weeds emerging from seed, the use of **Axill Solutions Glufosinate 280SL** in a tank mix with pre-emergence herbicides is advised. If spraying in areas adjacent to desirable plants, use a shield made of cardboard, plywood, or sheet metal while spraying to help prevent spray from contacting foliage of desirable plants. Refer to the **HOW TO APPLY** section below for appropriate application rates to control specific weeds.

# Wildlife Food Plots[\*]

This product may be used as a site preparation treatment prior to planting wildlife food plots. Any wildlife food species may be planted after applying this product, or native species may be allowed to repopulate the area. If tillage is needed to prepare a seed bed, wait 7 days after applying this product before tilling. Refer to the **HOW TO APPLY** section of this labeling for appropriate application rates to control specific weeds.

[\*Not for use in California]

#### Dormant Bermudagrass (Not for use on Residential Turf/Turfgrass/Lawns)

**Axill Solutions Glufosinate 280SL** may be used to control winter annual weeds in well-established ornamental dormant hybrid or common Bermudagrass. Apply only when the turf is fully dormant and prior to spring green-up or severe turfgrass injury or delayed green-up may occur. For best results, apply this product at a rate of 40 - 80 fl. oz. (0.73 - 1.46 lbs. a.i.) per acre after most weeds have germinated and are in an early growth stage. Referred to the **HOW TO APPLY** section below for specified rates. Applications of this product may also be used to suppress or control target biennial or perennial weeds. Avoid high volume and spot applications where spray volume exceeds 80 gals. per acre or injury or delayed green-up may occur.

#### Restrictions:

- **DO NOT** apply more than 80 fl. oz. (1.46 lbs. a.i.)/A per year for this use.
- DO NOT use on Residential Turf/Turfgrass/Lawns

# **Ornamentals and Christmas Trees**

When applied as advised by this label, this product may be used for the control of undesired vegetation in site preparation prior to planting, around and within shade and greenhouses, and as a directed spray around containers and field-grown established ornamentals and Christmas Trees. Refer to the **HOW TO APPLY** section below for appropriate application rates to control specific weeds.

- **Pre-Plant Site Preparation: Axill Solutions Glufosinate 280SL** may be used for pre-plant site preparation for the control of annual and perennial weeds listed on this label in ornamental and Christmas Tree plantings. Refer to the **HOW TO APPLY** section below for appropriate application rates to control specific weeds.
- **Directed Spray Application: Axill Solutions Glufosinate 280SL** may be applied as a directed spray to control in-row weeds in field-grown woody plants. Refer to the **HOW TO APPLY** section below for appropriate application rate to control specific weeds. This product may be used between and around container and site preparation for new planting.

#### **Restrictions:**

- Plant Ornamental and Christmas Trees only after the restricted entry interval (REI) of 12 hours.
- **DO NOT** apply directly to or allow drift to contact desirable green tissue or green, thin, or uncalloused bark of desirable vegetation or injury will result.
- DO NOT apply this product as an over-the-top broadcast spray in ornamentals and shade or Christmas trees.

#### **Greenhouse and Shade House Applications**

**Axill Solutions Glufosinate 280SL** may be used to control weeds in greenhouses and shade-houses. Air circulation fans must be turned off during application. Apply this product as a directed spray using large droplet and low-pressure type nozzles. Avoid drift and direct contact with desirable vegetation.

Restriction: DO NOT use in greenhouses or shade houses containing edible crops.

#### **Site Preparation for Conifer and Hardwood Production Areas**

Prior to planting conifer and hardwood species, **Axill Solutions Glufosinate 280SL** can be used as a site preparation treatment. **Restrictions:** 

- DO NOT apply Axill Solutions Glufosinate 280SL as an over-the-top broadcast spray to desirable conifer or hardwood plantings.
- Restricted Entry Interval (REI) for seedling conifer and hardwood treats to be planted into the treated area is 12 hours.

# STORAGE AND DISPOSAL

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

**PESTICIDE STORAGE: DO NOT** use or store near heat or open flame. Keep the container tightly closed and dry in a cool, well-ventilated place. **DO NOT** exceed storage temperature of 125°F. If storage temperature for bulk product is below 32°F, **DO NOT** pump material until its temperature exceeds 32°F. Protect against direct sunlight.

**PESTICIDE DISPOSAL:** Waste resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

#### **CONTAINER HANDLING:**

[[Less Than or Equal to 5 Gallons:] Non-refillable plastic 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 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 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.]

[[Greater Than 5 Gallons:] Non-refillable plastic 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.]

[[Greater Than 5 Gallons:] Refillable plastic 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% 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.]

#### CONDITION OF SALE AND LIMITATION OF WARRANTY AND LIABILITY

**NOTICE:** Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before buying or using this product. If the terms are not acceptable, return the product at once, unopened, and the purchase price will be refunded.

The Directions for Use of this product must be followed carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Ineffectiveness or other unintended consequences may result because of such factors as manner of use or application, weather, presence of other materials or other influencing factors in the use of the product, which are beyond the control of Axill Solutions, LLC or Seller. To the extent consistent with applicable law, all such risks shall be assumed by Buyer and User, and Buyer and User agree to hold Axill Solutions, LLC and Seller harmless for any claims relating to such factors.

Axill Solutions, LLC warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use, subject to the inherent risks referred to above, when used in accordance with directions under normal use conditions. This warranty does not extend to the use of this product contrary to label instructions, or under abnormal conditions or under conditions not reasonably foreseeable to or beyond the control of Seller or Axill Solutions, LLC, and Buyer and User assume the risk of any such use. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, AXILL SOLUTIONS, LLC MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS STATED ABOVE.

To the extent consistent with applicable law, neither Axill Solutions, LLC nor Seller shall be liable for any incidental, consequential or special damages resulting from the use or handling of this product. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF AXILL SOLUTIONS, LLC AND SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT OR, AT THE ELECTION OF AXILL SOLUTIONS, LLC OR SELLER, THE REPLACEMENT OF THE PRODUCT.

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[EPA Approval Date]