OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION

WASHINGTON, D.C. 20460

September 13, 2025

Maryanne Kellogg
maryanne@pyxisrc.com
JABCO, LLC

Subject: Non-PRIA (Pesticide Registration Improvement Act) Labeling Amendment - Amendment to the label for Crop Protect Direct Glufosinate 280SL (EPA Reg. No. 101458-7) to update use rates, add California specific language and reformat the label in accordance with the me-too label
Product Name: Crop Protect Direct Glufosinate 280SL
Admin Number: 101458-7
EPA Receipt Date: 08/08/2024
Action Case Number: 00624720

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

[Note to reviewer: [Text] in brackets denotes optional text].
[Note to reviewer: {Text} in braces denotes where in the final label text will appear.]

{BOOKLET FRONT PANEL}

GLUFOSINATE-AMMONIUM	GROUP	10	HERBICIDE

Crop Protect Direct Glufosinate 280SL

Crop Protect Direct Glufosinate 280SL is a non-selective herbicide. Apply Crop Protect Direct Glufosinate 280SL for post emergence control of listed weed species in listed berry, tree, and vine crops. Crop Protect Direct Glufosinate 280SL may also be applied for potato vine desiccation. Crop Protect Direct 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. Crop Protect Direct 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[*]. Crop Protect Direct Glufosinate 280SL may also be applied for canola, corn, cotton, and soybean seed propagation.
[*Not for use in California.]

Active Ingredient:
Glufosinate ammonium 24.5%
Other Ingredients: 75.5%
Total: 100.0%
Contains 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:	• 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 CLOTHING:	• Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15-20 minutes. • Call a poison control center or doctor for treatment advice.
IF SWALLOWED:	• Call a poison control center or doctor immediately for treatment advice. • Have a person sip a glass of water if able to swallow. • **DO NOT** induce vomiting unless told to do so by a poison control center or doctor. • **DO NOT** give anything by mouth to an unconscious person.
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**.	

[See] [inside] [label] [booklet] [for] [First Aid][,] [additional] [Precautionary Statements][,] [and] [Directions for Use] [including] [Storage and Disposal Instructions][.]

EPA Reg. No.: 101458-7 **EPA Est. No.: _____**

Manufactured For:
JABCO, LLC
550 W. Pioneer Blvd., Suite 140
Mesquite, NV 89027

Net Contents: _____ [Gals./Liters]

{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.

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 workers 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
- 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

Crop Protect Direct 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. **Crop Protect Direct 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 **Crop Protect Direct 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 **Crop Protect Direct 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, JABCO, 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 **Crop Protect Direct 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 **Crop Protect Direct Glufosinate 280SL**. If **Crop Protect Direct Glufosinate 280SL** comes in contact with non-glufosinate-resistant cotton plants (foliage or stems), serious injury or loss of plant could occur.

Crop Protect Direct 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

- **Crop Protect Direct 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:
  - Make sure uniform, thorough spray coverage is obtained.
  - Avoid cultivation from 5 days prior to application to 7 days following application.
  - If possible, avoid application in heavy dew, fog, mist, or rain.
  - Apply **Crop Protect Direct 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, **Crop Protect Direct 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 **Crop Protect Direct 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.

Crop Protect Direct Glufosinate 280SL dilutes quickly and easily in water. For proper mixing fill the spray tank with water and begin agitation. Add **Crop Protect Direct Glufosinate 280SL** and continue agitation. Prior to applying **Crop Protect Direct 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 **Crop Protect Direct Glufosinate 280SL**.

Tank Mixtures – Compatibility
If applying **Crop Protect Direct 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.

Crop Protect Direct 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 **Crop Protect Direct 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 **Crop Protect Direct 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 **Crop Protect Direct 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
Crop Protect Direct 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, **Crop Protect Direct 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 **Crop Protect Direct 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 **Crop Protect Direct 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 **Crop Protect Direct Glufosinate 280SL** application to potatoes as a vine desiccant.

Crop	Minimum Rotational Interval
Canola; Corn, Sweet Corn; Cotton; Soybeans; and Sugarbeets	0 days (may be planted at any time after **Crop Protect Direct 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 **Crop Protect Direct Glufosinate 280SL** or other Group 10 herbicides. Users must scout before and after application.

To delay herbicide resistance:

- Rotate the use of **Crop Protect Direct 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 (weed-competitive 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 recommendations for specific crops and resistant weed biotypes.
- For further information or to report suspected resistance, contact a JABCO, LLC 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 recommended 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 recommended 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 (such as 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 recommended.
- **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: https://www.epa.gov/reducing-pesticide-drift/epa-verified-and 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

LISTED BERRY, TREE AND VINE CROPS

Crop Protect Direct Glufosinate 280SL can be applied to the following Berry, Tree and Vine 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 **Crop Protect Direct 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. **Crop Protect Direct 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:

$$\frac{\text{Band width in inches}}{\text{Row width in inches}} \times \text{Rate per acre broadcast} = \text{Amount of herbicide needed for treatment}$$

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:

- **Crop Protect Direct 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 **Crop Protect Direct 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 **Crop Protect Direct 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).
- **Crop Protect Direct 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 **Crop Protect Direct Glufosinate 280SL**.
- Thoroughly clean application equipment following use.

Tank Mixes

Unexposed plant parts or residual weed growth is not controlled by **Crop Protect Direct Glufosinate 280SL**. For residual control or control of a broader spectrum of weeds, or to support product performance, **Crop Protect Direct 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 **Crop Protect Direct Glufosinate 280SL** in a tank mix, additional surfactant is not required.

Restrictions:

- **DO NOT** apply more than 164 fl. oz./A **Crop Protect Direct 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 **Crop Protect Direct 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.
- Make no more than 2 applications per year at the maximum rate of 82 fl. oz. per acre (1.5 lbs. a.i./A) per application to bushberry (crop subgroup 13-07B), or stone fruit (crop group 12-12).
- Make no more than 3 applications at the maximum rate of 82 fl. oz. per acre (1.5 lbs. a.i./A) per application 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.
- Orchard cover crops are not to be grazed or harvested and/or fed to livestock.
- **DO NOT** make directed spray or spot applications to vine trunk or tree trunk, or spot applications to suckers (to avoid injury).
- **Crop Protect Direct Glufosinate 280SL** is not to be applied through any type of irrigation system.
- **Crop Protect Direct Glufosinate 280SL** is not to be applied aerially to tree, berry, or vine crops.
- Observe an application interval of 14 days for berries, tree nuts, vine, citrus fruits, pome fruits and olives, and 28 days 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, and Non-Crop.

Broadleaf 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 Bluegrass, Kentucky Bromegrass, smooth Bulrush[1] Burdock Clover, Alsike Clover, red Clover, white Dallisgrass	Dogbank (hemp) Fescue Goldenrod, gray Guineagrass Horsetail Lovegrass Mugwort Mullein, common	Nutsedge, yellow Onion, wild Orchardgrass Paragrass Plantain Poison ivy/oak Quackgrass Rocket, yellow	Spurge, leafy Thistle, bull Thistle, Canada Thistle, musk Torpedograss Vaseygrass Woodsorrel Yarrow, common
Grass Weeds			
Barnyardgrass Bluegrass, annual Brome, ripgut Bromegrass, downy Canarygrass Chess, soft Crabgrass, large	Crabgrass, smooth Cupgrass, woolly Foxtail, giant Foxtail, green Foxtail, yellow Goosegrass Johnsongrass, seedling	Junglerice Oat, wild Panicum, fall Panicum, Texas Rush, toad[1] Ryegrass, annual[2] Sandbur, field	Shattercane Sprangletop Stinkgrass Wheat, volunteer Windgrass Witchgrass
[1]Suppression only. [2]Make application to annual ryegrass before it reaches 3" tall.			

CANOLA

Crop Protect Direct 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 **Crop Protect Direct 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 **Crop Protect Direct 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
- **Crop Protect Direct 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, **Crop Protect Direct 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 **Crop Protect Direct 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 **Crop Protect Direct 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 **Crop Protect Direct 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 **Crop Protect Direct 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).
- Wait 10 days between applications.
- Pre-harvest interval is 65 days.
- **Crop Protect Direct Glufosinate 280SL** is not to be applied through any type of irrigation system.
- Canola treated with **Crop Protect Direct Glufosinate 280SL** cannot be cut for hay or grazed.
- **DO NOT** apply **Crop Protect Direct Glufosinate 280SL** to glufosinate-resistant canola in the following states: AL, DE, GA, KY, MD, NJ, NC, SC, TN, VA, and WV.

SWEET CORN[*], FIELD CORN AND SILAGE CORN
[*Not for use on sweet corn in California.]

Crop Protect Direct 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 **Crop Protect Direct 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, **Crop Protect Direct 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, s-metolachlor, and products with a combination of s-metolachlor, mesotrione and atrazine, use half the rate with **Crop Protect Direct 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 **Crop Protect Direct 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 silage corn. In California, the maximum application rate is 22 fl. oz. (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 **Crop Protect Direct 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. (0.8 lb. 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, wait 10 days between applications.
- When **Crop Protect Direct Glufosinate 280SL** is used as a burndown, no additional (post-emergent) applications can be made to corn.

- Pre-harvest intervals are 50 days for sweet corn ears, 55 days for sweet corn stover, 60 days for field and silage corn forage and 70 days for field and silage corn grain and fodder.
- **Crop Protect Direct Glufosinate 280SL** is not to be applied through any type of irrigation system.
- Nitrogen solutions are not to be used as spray carriers.

COTTON

Crop Protect Direct 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 **Crop Protect Direct Glufosinate 280SL** comes in contact with non-glufosinate-resistant cotton plants (foliage or stems), serious injury or loss of plant could occur. **Crop Protect Direct Glufosinate 280SL** can also be used for post-harvest applications.

Use Rate and Timing

Crop Protect Direct 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 **Crop Protect Direct Glufosinate 280SL**. Timing 2 use pattern is used for low to medium weed pressure. Consult **WEED LIST C** for weed species controlled.

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)

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.

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:

$$\frac{\text{Band width in inches}}{\text{Row width in inches}} \times \text{Broadcast rate per acre} = \text{Amount of banded product needed per acre}$$

$$\frac{\text{Band width in inches}}{\text{Row width in inches}} \times \text{Broadcast spray volume per acre} = \text{Banded spray volume needed per acre}$$

Post-Harvest Application: When using **Crop Protect Direct 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. 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).

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:

Apply **Crop Protect Direct 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 **Crop Protect Direct 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 **Crop Protect Direct 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.
- **Crop Protect Direct 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, **Crop Protect Direct 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 **Crop Protect Direct 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) in a single application.
- **DO NOT** make more than 3 applications per year of **Crop Protect Direct Glufosinate 280SL** at a rate of 29 fl. oz./A (0.53 lb. a.i./A).
- 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. Observe an application interval of at least 10 -14 days.
- 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.
- Observe an application interval of at least 10 – 14 days.
- Pre-harvest interval is 70 days.
- **Crop Protect Direct Glufosinate 280SL** is not to be applied through any type of irrigation system.
- **Crop Protect Direct 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).

SOYBEANS

Crop Protect Direct 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 **Crop Protect Direct 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.
*Maximum application rate in California is 36 fl. oz./A (0.66 lb. a.i./A).

Important:
- For enhanced performance of **Crop Protect Direct 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.
- **Crop Protect Direct Glufosinate 280SL** can provide complete weed control when applied in a timely manner, however tank mixing or use of **Crop Protect Direct 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 **Crop Protect Direct Glufosinate 280SL**).

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, **Crop Protect Direct 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 **Crop Protect Direct 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 **Crop Protect Direct Glufosinate 280SL** at above rates to soybeans per year (including 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).
- Wait at least 5 days between applications.
- Pre-harvest interval is 70 days.
- **Crop Protect Direct Glufosinate 280SL** is not to be applied through any type of irrigation system.
- Soybeans treated with **Crop Protect Direct Glufosinate 280SL** cannot be cut for hay or grazed.
- Nitrogen solutions are not to be used as spray carriers.

SUGARBEETS
[(Not for use in California.)]

Crop Protect Direct 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 **Crop Protect Direct 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 **Crop Protect Direct 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 **Crop Protect Direct Glufosinate 280SL** has been applied will not be controlled, as **Crop Protect Direct 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, **Crop Protect Direct Glufosinate 280SL** is rainfast.

Tank Mixes
To support product performance, **Crop Protect Direct 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 **Crop Protect Direct 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 **Crop Protect Direct 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 **Crop Protect Direct Glufosinate 280SL** at 30 fl. oz./A (0.55 lb. a.i./A).
- A second application may be made a minimum of 10 days after the first 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.
- **Crop Protect Direct Glufosinate 280SL** is not to be applied through any type of irrigation system.
- Sugarbeets treated with **Crop Protect Direct Glufosinate 280SL** cannot be cut for hay or grazed.
- Rotation crop plantback in sugarbeet field treated with **Crop Protect Direct 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.

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			
Weed Species	**Maximum Weed Height***		**Use Notes**
	15 fl. oz. A (0.9 pt./A) (0.27 lb. a.i./A)	**20 fl. oz. A (1.25 pt./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
Perennial 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
Broadleaf 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”)	

Grass Weeds			
Weed Species	**Maximum Weed Height***		**Use Notes**
	15 fl. oz. A (0.9 pt./A) (0.27 lb. a.i./A)	**20 fl. oz. A (1.25 pt./A) (0.37 lb. a.i./A)**	
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”)	
Sunflower, common	1-6 leaf (3”)	7-8 leaf (5”)	
Thistle, Russian	(1”)	(2”)	
Velvetleaf	1-2 leaf (1”)	3-4 leaf (3”)	
*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.			

FALLOW FIELDS USE DIRECTIONS

Crop Protect Direct 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 or 29 fl. oz./A (0.4 – 0.53 lb. a.i./A) on fallow fields for control of target weed species. Mix **Crop Protect Direct Glufosinate 280SL** with ammonium sulfate for application to fallow fields.

Tank Mixes

To support product performance, **Crop Protect Direct 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 **Crop Protect Direct Glufosinate 280SL** in a tank mix, additional surfactant is not required.

Restrictions:

- Per year, **DO NOT** apply more than 29 fl. oz./A (0.53 lb. a.i./A) of **Crop Protect Direct Glufosinate 280SL** to fallow fields.
- **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.

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 or 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	22 fl. oz./A (0.4 lb. a.i./A)	29 – 43 fl. oz./A[1] (0.53-0.79 lb. a.i./A)
		C=Control S = Suppression	C=Control S = Suppression
Amaranth, Palmer	*Amaranthus palmeri*	Not Advised	C
Anoda, spurred	*Anoda cristata*	C	C
Beggarweed, Florida	*Desmodium tortuosum*	C	C
Black medic	*Medicago lupulina L.*	C	C
Blueweed, Texas	*Helianthus ciliaris DC.*	C	C
Buckwheat, wild	*Polygonum convolvulus*	C	C
Buffalobur	*Solanum cornutum*	C	C
Burcucumber	*Sicyos angulatus*	C	C
Canola, volunteer [2]	*Brassica* spp.	C [2]	C [2]
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
Copperleaf, hophornbeam	*Acalypha ostryaefolia*	C	C
Cotton, volunteer [2]	*Gossypium* spp.	C [2]	C [2]
Croton, tropic	*Croton glandulosus*	C	C
Croton, woolly	*Croton capitatus*	C	C
Eclipta	*Eclipta alba*	C	C
Devil's claw	*Proboscidea Louisiana*	C	C
Fleabane, annual	*Erigeron annuus*	C	C
Galinsoga, hairy	*Galinsoga ciliate*	C	C
Galinsoga, small flower	*Galinsoga parviflora*	C	C
Groundcherry, cutleaf	*Physalis angulate*	C	C
Geranium, cutleaf	*Geranium dissectrum L.*	C	C
Hempnettle	*Galeopsis spp.*	C	C
Horsenettle, Carolina [3]	*Solanum carolinense*	C [3]	C [3]
Jimsonweed	*Datura stramonium*	C	C
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 [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

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

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.

4 For optimum control apply **Crop Protect Direct Glufosinate 280SL** on 6" marestail

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

Common Name	Scientific Name	22 fl. oz./A (0.4 lb. a.i./A) C=Control S = Suppression	29 – 43 fl. oz./A[1] (0.53-0.79 lb. a.i./A) C=Control S = Suppression
Barley, volunteer [3]		C [3]	C [3]
Barnyardgrass	*Echinochloa spec.*	C	C
Bluegrass, annual	*Poa annua L.*	C	C
Corn, volunteer [2]	*Zea mays L.*	C [2]	C [2]
Crabgrass, large [4]	*Digitaria sanguinalis*	C [4]	C [4]
Crabgrass, smooth [4]	*Digitaria ischaemum*	C [4]	C [4]
Cupgrass, woolly	*Eriochloa villosa*	C	C
Foxtail, bristly	*Setaria verticillata*	C	C
Foxtail, giant	*Setaria faberi*	C	C
Foxtail, green	*Setaria viridis*	C	C
Foxtail, robust purple	*Setaria viridis*	C	C
Foxtail, yellow [4]	*Pennisetum glaucum*	C [4]	C [4]
Goosegrass [3]	*Eleusine indica*	C [3]	C [3]
Johnsongrass, seedling	*Sorghum halepense*	C	C
Junglerice	*Echinochloa colonum*	C	C
Millet, wild-proso	*Panicum miliaceum L.*	C	C
Millet, proso volunteer	*Milium vernale*	C	C
Oat, wild [4]	*Avena fatua*	C [4]	C [4]
Panicum, fall	*Panicum dichotomiflorum*	C	C
Panicum, Texas	*Panicum texanum*	C	C
Rice, red	*Oryza sativa L.*	C	C
Sandbur, field [4]	*Cenchrus pauciflorus*	S [4]	C [4]
Shattercane	*Sorghum vulgare PERS.*	C	C
Signalgrass, broadleaf	*Brachiaria platyphylla*	C	C
Sprangletop	*Leptochloa spec.*	C	C
Sorghum, volunteer	*Sorghum spp.*	C	C
Stinkgrass	*Eragrostis cilianensis*	C	C
Wheat, volunteer [3, 4]	*Triticum spec.*	C [3, 4]	C [3, 4]
Witchgrass	*Panicum virgatum L.*	C	C

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

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

BURNDOWN USE DIRECTIONS

Crop Protect Direct Glufosinate 280SL can be applied prior to planting or emergence of conventional or transgenic canola, corn, cotton, soybean or sugarbeet, to act as a burndown agent for existing weed species.

Application Timing:

Apply to small and actively growing weeds, targeting less than 3 inch weeds in height. Warm temperatures, high humidity, and bright sunlight improve the performance of **Crop Protect Direct Glufosinate 280SL**. Weed control may be reduced when applications are made to weeds under stress due to drought or cool temperatures. For optimum results on lambsquarters, Palmer amaranth and velvetleaf make applications between dawn and 2 hours before sunset. **Crop Protect Direct Glufosinate 280SL** is rainfast 4 hours after application, therefore, rainfall within 4 hours may necessitate retreatment.

Application Rates:
Apply 29.0 – 43.0 fluid ounces (1.32 lbs. ai/A) per acre of **Crop Protect Direct Glufosinate 280SL** depending on crop, weed species and intention of post application use. Please see application charts below.

Restrictions (also see specific crop use directions):

- In **cotton**, if environmental conditions prevent timely applications, a single application may be made of up to 43.0 fluid ounces (0.79 lbs ai/A) per acre of **Crop Protect Direct Glufosinate 280SL**. **If more than 29.0 fluid ounces (0.53 lbs. ai/A) per acre are used in any single application, the annual total may not exceed 72.0 fluid ounces (1.32 lbs. ai/A) per acre, including all application timings.**
- In **canola, corn (sweet and field) and soybean**, if environmental conditions prevent timely applications, a single application may be made of up to 43.0* fluid ounces(0.79 lbs. ai/A) per acre of **Crop Protect Direct Glufosinate 280SL**. The year total may not exceed 43.0* fluid ounces (0.79 lbs. ai/A) per acre, including all application timings, for non- Glufosinate resistant crops. *Maximum rate in California is 36 fl oz/A (0.66 lb. ai/A).

Adjuvant:
Ammonium sulfate (AMS) may be used at 1.5 to 3 pounds per acre. Adjuvant rates are dependent on tank mix partners, temperatures, environmental conditions and potential for leaf burn.
AMS has shown to improve weed control of difficult-to-control weeds, like lambsquarters and velvetleaf, under difficult environmental conditions (low relative humidity) or hard water.

Surfactants / Crop Oils:
The use of surfactants may be included. Please refer to the surfactant label for more detailed information.

APPLICATION DIRECTIONS FOR NON-GLUFOSINATE RESISTANT CROPS			
Crop	**Burndown**	**In Season Applications**	**Annual Max**
Canola, Soybean, Sweet Corn, Field Corn	29 – 43* fl oz/A (0.53 – 0.79 lbs ai/A)	None	43* fl oz/A (0.79 lbs ai/A)
Sugar beets	29 - 36 fl oz/A (0.53 – 0.66 lbs ai/A)	None	36 fl oz/A (0.66 lbs ai/A)
Cotton Use Pattern 1	29 fl oz/A (0.53 lbs ai/A)	2 applications at 29 fl oz/A** (0.53 lbs ai/A) Make second application 10-14 days after the first application.	87 fl oz/A (1.59 lbs ai/A)
Cotton Use Pattern 2	30-43 fl oz/A (0.55 – 0.79 lbs ai/A)	1 application at 29 fl oz/A** (0.53 lbs ai/A)	72 fl oz/A (1.32 lbs ai/A)

* Maximum rate in California is 36 fl oz/A (0.66 lbs ai/A).
** Cotton containing the glufosinate-resistant gene OR with hooded sprayer for all varieties (see **COTTON** use directions).

APPLICATION DIRECTIONS FOR CROPS CONTAINING THE GLUFOSINATE RESISTANT GENE TRAIT			
GLUFOSINATE RESISTANT Crop	**Burndown**	**In Season Applications of Crops Containing the GLUFOSINATE RESISTANT GENE**	**Annual Max**
Soybean	29 – 43* fl. oz./A (0.53 – 0.79 lbs. ai/A)	1 to 2 applications at 29 – 43* fl oz/A (0.53 – 0.79 lbs ai/A) For soybeans, make second application at least 5 days after the first	87* fl oz/A (1.59 lbs ai/A)

		application. For field corn, make second application at least 7 days after first application.	
Field Corn	29 – 43** fl oz/A (0.53 – 0.79 lbs ai/A)	1 to 2 applications at 29 – 43** fl oz/A (0.53 – 0.79 lbs ai/A) Make second application at least 7 days after the first application.	87** fl oz/A (1.59 lbs ai/A)
Sweet Corn***	22 fl. oz./A (0.4 lbs. ai/A)	1 to 2 applications at 22 fl oz/A (0.4 lbs ai/A) Make second application at least 7 days after the first application.	44 fl oz/A (0.8 lbs ai/A)
Canola	29 – 43* fl. oz./A (0.53 – 0.79 lbs. ai/A)	1 to 2 applications at 29 fl oz/A (0.53 lbs ai/A) Make second application at least 10 days after the first application	87* fl oz/A (1.59 lbs ai/A)
Cotton Use Pattern 1	29 fl. oz./A (0.53 lbs. ai/A)	1 to 2 applications at 29 fl oz/A**** (0.53 lbs ai/A) Make second application 10-14 days after the first application.	87 fl oz/A (1.59 lbs ai/A)
Cotton Use Pattern 2	30 - 43 fl oz/A (0.55 – 0.79 lbs. ai/A)	1 application at 29 fl oz/A**** (0.53 lbs ai/A)	72 fl oz/A (1.32 lbs ai/A)
Sugar beets***	29 - 36 fl oz/A (0.53 – 0.66 lbs. ai/A)	1 application at 29 fl oz/A (0.53 lbs ai/A)	60 fl oz/A (1.1 lbs ai/A)

* Maximum rate in California is 36 fl oz/A (0.66 lbs ai/A) with annual maximum of 72 fl oz/A (1.32 lbs ai/A).

** Maximum rate in California is 22 fl oz/A (0.4 lbs ai/A) with annual maximum of 44 fl oz/A (0.8 lbs ai/A).

*** Not for use in California

**** Cotton containing the glufosinate-resistant gene OR with hooded sprayer for all varieties (see **COTTON** use directions).

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 **Crop Protect Direct Glufosinate 280SL**, apply during warm and sunny weather, and high humidity.

POTATO VINE DESICCATION

Crop Protect Direct Glufosinate 280SL can be used to desiccate potato vines once the vines reach senescence.

Use Rate and Timing

Apply **Crop Protect Direct Glufosinate 280SL** at the rate of 21 fl. oz./A (0.38 lb. a.i./A). Make only 1 application once the potato vine enters its natural senescence period. **DO NOT** split the application. 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 **Crop Protect Direct 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:

- Per year, **DO NOT** apply more than 21 fl. oz./A (0.38 lb. a.i./A) of **Crop Protect Direct Glufosinate 280SL** to potato vines.
- **DO NOT** apply more than 21 fl. oz./A (0.38 lb. a.i./A) in a single application.
- Make only 1 application once the potato vine enters its natural senescence period.

- Pre-harvest interval is 9 days.
- The product can be applied to potatoes grown for seed.

Crop rotation and plantback intervals after application of **Crop Protect Direct Glufosinate 280SL** for potato vine desiccation are as follows:

Crop	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, Potato, Soybean, Sugar Beets	May be planted at any time.

CANOLA SEED PROPAGATION

[Not for Use in California]

During canola seed propagation, to eliminate vulnerable canola segregates that are not resistant to glufosinate-ammonium, apply **Crop Protect Direct Glufosinate 280SL** as a foliar spray, as indicated in the chart below. Up to 3 applications can be made. 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 **Crop Protect Direct 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 **Crop Protect Direct Glufosinate 280SL**.

Crop Protect Direct 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 elongation/bolting (8 or more leaves) through beginning of stem elongation (no internode)).
APPLICATION 2	29 fl. oz./A (0.53 lb. a.i./A)	
APPLICATION 3	29 fl. oz./A (0.53 lb. a.i./A)	

Restrictions:

- **DO NOT** make more than 3 applications of **Crop Protect Direct Glufosinate 280SL** to canola per year.
- Sequential applications must be made more than 10 days apart.
- **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.
- **Crop Protect Direct Glufosinate 280SL** is not to be applied through any type of irrigation system.
- Treated canola seed cannot be used for food, feed, or oil purposes.

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 **Crop Protect Direct Glufosinate 280SL**.

CORN

To pick out resistant segregates, apply **Crop Protect Direct Glufosinate 280SL** as indicated in the chart below. A second application, at least 10 days later, can be used, if needed. Corn plants not resistant to glufosinate-ammonium will be seriously injured or killed. To protect plants from **Crop Protect Direct Glufosinate 280SL**, apply herbicide with a hooded sprayer.

Crop Protect Direct 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 **Crop Protect Direct Glufosinate 280SL** at 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) in a single application.
- **DO NOT** exceed the max yearly application rate of 44 fl. oz./A (0.8 lb. a.i./A).
- Wait at least 10 days between applications.

COTTON

During cotton seed propagation, to eliminate vulnerable cotton segregates that are not resistant to glufosinate-ammonium, apply **Crop Protect Direct 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 **Crop Protect Direct Glufosinate 280SL**. Use Timing 2 when making a timely application, under normal pest pressure.

TIMING 1

Crop Protect Direct Glufosinate 280SL Use Rate		Cotton Growth Stage
APPLICATION 1	30 – 43 fl. oz./A (0.55 – 0.79 lb. a.i./A)	Emergence, up to early bloom.
APPLICATION 2	22 – 29 fl. oz./A (0.4 – 0.53 lb. a.i./A)	

Restrictions:

- **DO NOT** make more than 2 applications per year of **Crop Protect Direct Glufosinate 280SL**.
- **DO NOT** apply more than 43 fl. oz./A (0.79 lb. a.i./A) in a single application.
- **DO NOT** exceed the max yearly application rate of 72 fl. oz./A (1.32 lbs. a.i./A) when applied at reduced rates.
- Wait at least 10 days between applications.

TIMING 2

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

Restrictions:

- **DO NOT** make more than 3 applications of **Crop Protect Direct 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).
- Wait at least 10 days between applications.

SOYBEANS

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

Crop Protect Direct 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.

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

Restrictions :

- **Do not** make more than 2 applications of **Crop Protect Direct 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).
- Wait at least 5 days between applications.

NON-CROP USES

Crop Protect Direct 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.

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 (excluding spot treatment) per year.

- **DO NOT** apply more than 2 applications per year on Dormant bermudagrass. Applications must be made at least 14 days apart in non-crop areas.

WHEN TO APPLY
Crop Protect Direct 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 **Crop Protect Direct Glufosinate 280SL** plus 1 or more appropriate residual herbicides will be needed to control weeds emerging from underground parts or seeds.

MIXING INSTRUCTIONS
Crop Protect Direct 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. **DO NOT** apply beyond runoff. **DO NOT** spray during windy conditions. **DO NOT** exceed single maximum and yearly maximum broadcast use rates.

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
Crop Protect Direct 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 **Crop Protect Direct 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 **Crop Protect Direct 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 ¾ 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 **Crop Protect Direct Glufosinate 280SL**.

For the following Weeds Controlled Crop Protect Direct 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:** 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 Crop Protect Direct 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:** 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, **Crop Protect Direct Glufosinate 280SL** will provide control, partial control, or suppression of certain perennial woody weed species. Apply 64 - 192 fl. oz./A (1.17 - 3.51 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	*Ilex* 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*

WHERE TO APPLY

Crop Protect Direct 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 plants, 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, greenhouses, 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, resorts, schools and other educational facilities, sewage disposal areas, shade houses, shelter belts, sidewalks, site preparation areas for conifer and hardwood, sports areas, storage areas, substations, tennis courts, trails, uncropped farmstead areas, vacant lots, walkways, wastelands, wildlife food plots*, wildlife habitat areas, wildlife openings.
[*Not for use in California.]

Conservation Reserve Program (CRP)[*]

Crop Protect Direct 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. (0.88 – 1.02 lb. a.i.) per acre of **Crop Protect Direct 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

Crop Protect Direct 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 **Crop Protect Direct 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]

Farmstead, Recreational, and Public Areas

When applied as a spot or directed spray application, this product controls annual and perennial weeds listed on this label in areas listed under the **WHERE TO APPLY** section. Refer to the **HOW TO APPLY** section of this labeling for appropriate application rates to control specific weeds.

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

Crop Protect Direct 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. Refer 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. **DO NOT** apply more than 80 fl. oz. (1.46 lbs. a.i.)/A per year for this use.

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. **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. Refer to the **HOW TO APPLY** section below for appropriate application rates to control specific weeds.

- **Pre-Plant Site Preparation: Crop Protect Direct 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. Ornamental and Christmas Trees may be planted after the restricted entry interval (REI) of 12 hours. Refer to the **HOW TO APPLY** section below for appropriate application rates to control specific weeds.
- **Directed Spray Application: Crop Protect Direct 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.

Greenhouse and Shade House Applications
Crop Protect Direct 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. **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, **Crop Protect Direct Glufosinate 280SL** can be used as a site preparation treatment. **DO NOT** apply **Crop Protect Direct 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:
[[Nonrefillable Container 5 Gallons or less:] 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.]

[[Nonrefillable Container 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.]

[[Refillable Container 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 JABCO, 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 JABCO, LLC and Seller harmless for any claims relating to such factors.

JABCO, 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 JABCO, LLC, and Buyer and User assume the risk of any such use. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, JABCO, 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 JABCO, 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 JABCO, 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 JABCO, LLC OR SELLER, THE REPLACEMENT OF THE PRODUCT.**

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[EPA APPROVAL DATE]