



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY  
AND POLLUTION PREVENTION

July 19, 2019

Robert Avalos  
Manager of Registrations  
Loveland Products  
PO Box 1286  
Greeley, CO 80632

Subject: Registration Review Label Mitigation for Glufosinate  
Product Name: LPI Glufosinate 280  
EPA Registration Number: 34704-1080  
Application Date: September 25, 2017  
Decision Number: 553166

Dear Mr. Avalos:

The Agency, in accordance with the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), as amended, has completed reviewing all of the information submitted with your application to support the Registration Review of the above referenced product in connection with the Glufosinate Interim Decision, and has concluded that your submission is acceptable. The label referred to above, submitted in connection with registration under FIFRA, as amended, is acceptable.

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

A copy of your label stamped "Accepted" is enclosed. Products shipped after 12 months from the date of this amendment must bear the new revised label. Your release for shipment of the product bearing the amended label constitutes acceptance of these conditions. If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6.

If you have any questions about this letter, please contact Jaclyn Pyne by phone at 703-347-0445, or via email at [pyne.jaclyn@epa.gov](mailto:pyne.jaclyn@epa.gov).

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Sincerely,

A handwritten signature in blue ink, appearing to read "Linda Arrington", with a long horizontal flourish extending to the right.

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

Enclosure

[Note to reviewer: [Text] in brackets denotes optional text].

GLUFOSINATE-AMMONIUM	GROUP	10	HERBICIDE
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# LPI GLUFOSINATE 280

[Alternate Brand Name: Forfeit® 280]

LPI GLUFOSINATE 280 is a non-selective herbicide that provides control of a broad spectrum of broadleaf and grassy weeds. LPI GLUFOSINATE 280 is registered for use:

- as a **burndown treatment prior to planting or prior to emergence** of canola, corn, sweet corn, cotton, soybean, and sugar beet.
- **post emergence weed control herbicide** to be applied on **LibertyLink (LL)** crops including LL canola, LL soybeans, LL corn, LL sweet corn, and LL cotton
- **post emergence weed control herbicide** to be applied on cotton with a hooded sprayer only
- **post emergence weed control herbicide** to be applied on listed trees, vine and berry crops
- **post emergence weed control herbicide** to be applied on olives
- as a **vine desiccant** in potatoes

<b>ACTIVE INGREDIENT:</b>	<b>% By Wt.</b>
Glufosinate-ammonium*:	24.5%**
<b>OTHER INGREDIENTS:</b>	<b>75.5%</b>
<b>TOTAL</b>	<b>100.0%</b>

\*CAS Number 77182-82-2

\*\*Equivalent to 2.34 pounds of active ingredient per U.S. gallon.

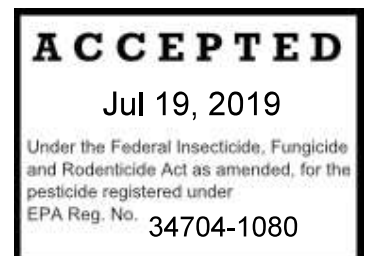
## KEEP OUT OF REACH OF CHILDREN CAUTION

For Additional Precautionary Statements, Complete First Aid, Directions for Use, Storage and Disposal and Other Use Information, See Inside This Label Booklet.

FIRST AID	
<b>If on skin:</b>	<ul style="list-style-type: none"> <li>• Take off contaminated clothing.</li> <li>• Rinse skin immediately with plenty of water for 15 to 20 minutes.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
<b>If swallowed:</b>	<ul style="list-style-type: none"> <li>• Call a poison control center or doctor immediately for treatment advice.</li> <li>• Have person sip a glass of water if able to swallow.</li> <li>• Do not induce vomiting unless told to do so by a poison control center or doctor.</li> <li>• Do not give anything to an unconscious person.</li> </ul>
<b>If in eyes:</b>	<ul style="list-style-type: none"> <li>• Hold eye open and rinse slowly and gently with water for 15 to 20 minutes.</li> <li>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
<p>Have the product container or label with you when calling a poison control center or doctor, or going for treatment.  <b>FOR A MEDICAL EMERGENCY INVOLVING LPI GLUFOSINATE 280 CALL: 1-866-944-8565.</b>  <b>Note to Physician:</b> If ingested, endotracheal intubation and gastric lavage should be performed as soon as possible followed by charcoal and sodium sulfate administration.</p>	

EPA Reg. No. 34704-1080  
EPA EST. No.  
NET CONTENTS: GAL (L)  
[Print code to be placed here]

FORMULATED FOR:  
LOVELAND PRODUCTS, INC.  
P.O. BOX 1286  
GREELEY, COLORADO 80632-1286



**PRECAUTIONARY STATEMENTS**  
**HAZARDS TO HUMANS AND DOMESTIC ANIMALS**

**CAUTION**

Harmful if absorbed through skin. Harmful if swallowed. Causes moderate eye irritation. Avoid contact with skin, eyes or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco or using the toilet. Wear long-sleeved shirt and long pants, socks, shoes, and gloves. Remove and wash contaminated clothing before reuse. Avoid contact with eyes or clothing. Wear protective eyewear (if appropriate).

**PERSONAL PROTECTIVE EQUIPMENT (PPE)**

**Applicators and other handlers must wear:**

- Long-sleeve shirts, long pants, shoes, and socks.
- Chemical-resistant gloves such as barrier laminate, butyl rubber  $\geq 14$  mils, nitrile rubber  $\geq 14$  mils, neoprene rubber  $\geq 14$  mils, polyvinyl chloride (PVC)  $\geq 14$  mils, or Viton<sup>®</sup>  $\geq 14$  mils,
- Protective eyewear (goggles face shield or safety glasses).
- Wear a chemical resistant apron when mixing/loading and cleaning equipment.
- Applicators using groundboom equipment with open cabs to treat cotton must wear long-sleeve shirts, long pants, shoes, and socks plus chemical-resistant gloves.
- Mixer/loaders supporting groundboom applications to corn, canola, soybean, cotton, citrus fruit, pome fruit, stone fruit, and olives must wear long-sleeve shirts, long pants, shoes, and socks plus chemical-resistant gloves.

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with LPI Glufosinate 280'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.

Mixers/loaders supporting aerial applications must wear a dust/mist filtering respirator (NIOSH approval number prefix TC-21C), or a NIOSH approved respirator with any N, R, P or HE filter.

**USER SAFETY RECOMMENDATIONS**

**Users Should:**

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

**ENGINEERING CONTROLS 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.

**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 high water mark. Do not contaminate water by cleaning of equipment or disposal of equipment washwaters or rinsate.

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

Under some conditions, LPI Glufosinate 280 may have a potential to run-off to surface water or adjacent land. Where possible, use methods which reduce soil erosion, such as no till, limited till and contour plowing; these methods also reduce pesticide run-off. Use of vegetation filter strips along rivers, creeks, streams, wetlands, etc. or on the downhill side of fields where run-off could occur to minimize water run-off is recommended.

**DIRECTIONS FOR USE**

It is a violation of Federal law to use LPI Glufosinate 280 in a manner inconsistent with its labeling.

Do not use LPI Glufosinate 280 until you have read the entire label. Do not apply LPI Glufosinate 280 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 LPI Glufosinate 280 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:

- Canola scouting – REI of 4 days
- Field corn and soybean scouting – REI of 6 days
- Do not move irrigation pipe within 11 days of an application for any crop except sweet corn irrigation activities which has a 7 days REI.

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

- Coveralls worn over short-sleeved shirt and short pants;
- Chemical resistant gloves such as barrier laminate, butyl rubber 14 mils, nitrile rubber  $\geq 14$  mils, neoprene rubber  $\geq 14$  mils, polyvinyl chloride (PVC)  $\geq 14$  mils, or Viton  $\geq 14$  mils, and
- Chemical resistant footwear plus socks;
- Protective eyewear (goggles, face shield or safety glasses).

### **IMPORTANT CROP SAFETY INFORMATION READ BEFORE USING LPI GLUFOSINATE 280**

LPI Glufosinate 280 may be applied as a burndown treatment prior to planting or prior to emergence of any conventional or transgenic variety of canola, sweet corn\*, corn, cotton, olive, , soybean or sugar beet.

Post emergence row crop applications of LPI Glufosinate 280 may be made only to crops tolerant to the active ingredient in LPI Glufosinate 280. Loveland Products, Inc. does not warrant the use of LPI Glufosinate 280 on crops other than those designated as LibertyLink to safely withstand the application of LPI Glufosinate 280.

The basis of selectivity of LPI Glufosinate 280 in crops is the presence of a gene in LibertyLink crops which results in a plant that is tolerant to the active ingredient of LPI Glufosinate 280. Crops not containing this gene will not be tolerant to LPI Glufosinate 280 and severe crop injury and/or death may occur. Do not allow spray to contact foliage or green tissue of desirable vegetation other than crops tolerant to the active ingredient in LPI Glufosinate 280.

LPI Glufosinate 280 may be applied to conventional or other transgenic cotton not tolerant to the active ingredient in LPI Glufosinate 280 using a hooded sprayer.

Applications to trees, vines, and berries should avoid contact of LPI Glufosinate 280 solution, spray, drift or mist with green bark, stems, or foliage, as injury may occur to trees, berries, and vines. Only trunks with callused, mature brown bark should be sprayed unless protected from spray contact by nonporous wraps, grow tubes, or waxed containers. Contact of LPI Glufosinate 280 with parts of trees, berries, or vines other than mature brown bark can result in serious damage.

### PRODUCT INFORMATION

LPI GLUFOSINATE 280 is a 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 in a variety of crops.

LPI GLUFOSINATE 280 is registered for use:

- as a burndown treatment prior to planting or prior to emergence of canola, corn, sweet corn, cotton, soybean, and sugar beet.
- post emergence weed control herbicide to be applied on LibertyLink (LL) crops including LL canola, LL soybeans, LL corn, LL sweet corn, and LL cotton
- post emergence weed control herbicide to be applied on cotton with a hooded sprayer only
- post emergence weed control herbicide to be applied on listed trees, vine and berry crops
- post emergence weed control herbicide to be applied on olives
- as a vine desiccant in potatoes

LPI Glufosinate 280 is only foliar-active with little or no activity in soil. Weeds that emerge after application will not be controlled.

Apply LPI Glufosinate 280 to actively growing weeds as described in the **Weed Control For Row Crops** section to get maximum weed control. Uniform, thorough spray coverage is necessary to achieve consistent weed control. Necrosis of leaves and young shoots occur within 2 to 4 days after application under good growing conditions.

- LPI Glufosinate 280 is rainfast 4 hours after application to most weed species; therefore, rainfall within 4 hours may necessitate retreatment or may result in reduced weed control.
- Make applications between dawn and 2 hours before sunset to avoid the possibility of reduced lambsquarters and velvetleaf control.
- Consult your local Cooperative Extension Service or Loveland Products, Inc. representative for guidelines on the optimum application timing for LPI Glufosinate 280 in your region.
- Weed control may be reduced if application is made when heavy dew, fog, and mist/rain are present; or when weeds are under stress due to environmental conditions such as drought, cool temperatures, or extended periods of cloudiness.
- To maximize weed control, do not cultivate from 5 days before an application to 7 days after an application.

### ROTATIONAL CROP RESTRICTIONS\*

Rotational crop planting intervals following application of LPI Glufosinate 280 are listed below. Failure to comply with these restrictions may result in illegal residues in rotated crops.

Rotational Crop	Plant Back Interval (Minimum Rotational Crop Planting Interval from Last Application)
Canola, Corn, Cotton, Soybeans, Sweet Corn, and Sugar beets	May be planted at any time
Root and Tuber Vegetables, Leafy Vegetables, Brassica Leafy Vegetables and Small Grains (Barley, Buckwheat, Oats, Rye, Teosinte, Triticale, and Wheat).	70 Days
All Other Crops	180 Days
*See Application Directions for Potato Vine Desiccation for Rotational Crop Restrictions specifically after application of LPI Glufosinate 280 to potatoes.	

### WEED RESISTANCE MANAGEMENT

The active ingredient in LPI Glufosinate 280 is glufosinate-ammonium, which is a glutamine synthetase inhibitor (Group 10). A given weed population may contain or develop resistance to a herbicide after repeated use. Appropriate resistance-management strategies should be followed to mitigate or delay resistance. If levels of control provided by applications of this product is reduced, and cannot be accounted for by factors such as misapplication, abnormal levels of target species or extremes of weather, it may be the case that target species have developed a strain resistant to applications of this product. Contact your local extension agent, crop advisor, or sales representative to find out if suspected resistant weeds have been found in your region.

Suspected herbicide-resistant weeds may be identified by these indicators:

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- Failure to control a weed species normally controlled by the herbicide at the dose applied, especially if control is achieved on adjacent weeds;
- A spreading patch of non-controlled plants of a particular weed species; and
- Surviving plants mixed with controlled individuals of the same species.

If resistance develops, this product may not provide sufficient control of target species. Where you suspect target species are developing resistance, contact State/local agricultural advisors. Integrated weed management guidelines promote an economically viable, environmentally sustainable, and socially acceptable weed control program regardless of the herbicide(s) used. The highlights of successful integrated weed management include:

1. Correctly identify weeds and look for trouble areas within field to identify resistance indicators.
2. Rotate crops.
3. Start the growing season with clean fields.
4. Rotate herbicide modes of action by using multiple modes of action during the growing season and apply no more than 2 applications of a single herbicide mode of action to the same field in a 2-year period. One method to accomplish this is to rotate herbicide tolerant trait systems.
5. Apply listed rates of herbicides to actively growing weeds at the correct time with the right application techniques.
6. Control any weeds that may have escaped the herbicide application.
7. Thoroughly clean field equipment between fields.
8. Scout before and after application.

Report any incidence of non-performance of this product against a particular weed species to your Loveland Products, Inc. retailer, representative or call 1-888-574-2878. If resistance is suspected, treat weed escapes with an herbicide having a different mechanism of action and/or use non-chemicals means to remove escapes, as practical, with the goal of preventing further seed production.

### WEED CONTROL FOR ROW CROPS

Rates in fluid ounce of formulated product per acre for the control of weeds at selected heights are shown in the weed control tables. In weed populations with mixed species, apply at a rate needed for the species targeting less than three inch weeds.

<b>Table 1. Broadleaf Weeds Controlled (including Glyphosate-, Triazine-, PPO-, ALS-, HPPD-, and Auxin-Resistant Biotypes)</b>			
<b>Common Name</b>	<b>Scientific Name</b>	<b>22.0 fl oz/A (0.40 lbs ai/A)</b>	<b>29.0 - 43.0 fl oz/A (0.53 – 0.79 lbs ai/A)</b>
		<b>C = Control NR = Not Recommended S = Suppression</b>	<b>C = Control NR = Not Recommended S = Suppression</b>
Amaranth, Palmer	<i>Amaranthus palmeri</i>	NR	C
Anoda, spurred	<i>Anoda cristata</i>	C	C
Beggarweed, Florida	<i>Desmodium tortuosum</i>	C	C
Black medic	<i>Medicago lupulina L.</i>	C	C
Blueweed, Texas	<i>Helianthus ciliaris DC.</i>	C	C
Buckwheat, wild	<i>Polygonum convolvulus</i>	C	C
Buffalobur	<i>Solanum cornutum</i>	C	C
Burcucumber	<i>Sicyos angulatus</i>	C	C
Canola, volunteer <sup>1</sup>	<i>Brassica spp.</i>	C <sup>1</sup>	C <sup>1</sup>
Catchweed bedstraw (cleavers)	<i>Galium aparine L.</i>	C	C
Carpetweed	<i>Mollugo verticillata</i>	C	C
Chickweed, common	<i>Stellaria media</i>	C	C
Cocklebur, common	<i>Xanthium strumarium</i>	C	C
Copperleaf, hophornbeam	<i>Acalypha ostryaefolia</i>	C	C
Cotton, volunteer <sup>1</sup>	<i>Gossypium spp.</i>	C <sup>1</sup>	C <sup>1</sup>
Croton, tropic	<i>Croton glandulosus</i>	C	C
Croton, woolly	<i>Croton capitatus</i>	C	C
Eclipta	<i>Eclipta alba</i>	C	C
Devil's claw	<i>Proboscidea Louisiana</i>	C	C

**Table 1. Broadleaf Weeds Controlled (including Glyphosate-, Triazine-, PPO-, ALS-, HPPD-, and Auxin-Resistant Biotypes)**

Common Name	Scientific Name	22.0 fl oz/A (0.40 lbs ai/A)	29.0 - 43.0 fl oz/A (0.53 – 0.79 lbs ai/A)
		C = Control NR = Not Recommended S = Suppression	C = Control NR = Not Recommended S = Suppression
Fleabane, annual	<i>Erigeron annuus</i>	C	C
Galinsoga, hairy	<i>Galinsoga ciliate</i>	C	C
Galinsoga, small flower	<i>Galinsoga parviflora</i>	C	C
Groundcherry, cutleaf	<i>Physalis angulate</i>	C	C
Geranium, cutleaf	<i>Geranium dissectum L.</i>	C	C
Hempnettle	<i>Galeopsis spp.</i>	C	C
Horsenettle, Carolina <sup>2</sup>	<i>Solanum carolinense</i>	C <sup>2</sup>	C <sup>2</sup>
Jimsonweed	<i>Datura stramonium</i>	C	C
Knotweed	<i>Polygonum spec.</i>	C	C
Kochia	<i>Kochia scoparia</i>	C	C
Ladysthumb	<i>Polygonum persicaria</i>	C	C
Lambsquarters, common	<i>Chenopodium album</i>	C	C
Mallow, common	<i>Malva spec.</i>	C	C
Mallow, Venice	<i>Hibiscus trionum</i>	C	C
Marestail <sup>3</sup>	<i>Conyza Canadensis</i>	S	C
Marsh-elder, annual	<i>Iva annua</i>	C	C
Morningglory, entireleaf	<i>Ipomoea hederacea var.</i>	C	C
Morningglory, ivyleaf	<i>Ipomoea hederacea</i>	C	C
Morningglory, pitte	<i>Ipomoea lacunose</i>	C	C
Morningglory, sharppod	<i>Ipomoea cordatotriloba</i>	C	C
Morningglory, Smallflower	<i>Jacquemontia tamnifolia</i>	C	C
Morningglory, tall	<i>Ipomoea purpurea</i>	C	C
Mustard, wild	<i>Sinapis arvensis</i>	C	C
Nightshade, black	<i>Solanum nigrum</i>	C	C
Nightshade, eastern black	<i>Solanum ptycanthum</i>	C	C
Nightshade, hairy	<i>Solanum sarrachoides</i>	C	C
Pennycress	<i>Thlaspi arvense</i>	C	C
Pigweed, redroot	<i>Amaranthus retroflexus</i>	C	C
Pigweed, prostrate	<i>Amaranthus blitoides</i>	C	C
Pigweed, spiny	<i>Amaranthus spinosus</i>	C	C
Pigweed, smooth	<i>Amaranthus hybridus</i>	C	C
Pigweed, tumble	<i>Amaranthus albus</i>	C	C
Puncturevine	<i>Tribulus terrestris</i>	C	C
Purslane, common	<i>Portulaca oleracea</i>	C	C
Pusley, Florida	<i>Richardia scabra</i>	S	C
Ragweed, common	<i>Ambrosia artemisiifolia</i>	C	C
Ragweed, giant	<i>Ambrosia trifida</i>	C	C
Senna coffee	<i>Cassia occidentalis</i>	C	C
Sesbania, hemp	<i>Sesbania herbacea</i>	C	C
Shepherd's-Purse	<i>Capsella bursa-pastoris</i>	C	C
Sicklepod (java bean)	<i>Senna obtusifolia</i>	C	C
Sida, prickly	<i>Sida spinosa L.</i>	C	C
Smartweed, Pennsylvania	<i>Polygonum pennsylvanicum</i>	C	C
Smell melon	<i>Cucumis melo L. var. Dudaim</i>	C	C
Sowthistle, annual	<i>Sonchus oleraceus L.</i>	C	C
Soybeans, volunteer <sup>1</sup>	<i>Glycine max</i>	C <sup>1</sup>	C <sup>1</sup>
Spurge, prostrate	Spurge, prostrate	C	C
Spurge, spotted	<i>Euphorbia maculate L.</i>	C	C



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<b>Table 1. Broadleaf Weeds Controlled (including Glyphosate-, Triazine-, PPO-, ALS-, HPPD-, and Auxin-Resistant Biotypes)</b>			
<b>Common Name</b>	<b>Scientific Name</b>	<b>22.0 fl oz/A (0.40 lbs ai/A)</b>	<b>29.0 - 43.0 fl oz/A (0.53 - 0.79 lbs ai/A)</b>
		<b>C = Control NR = Not Recommended S = Suppression</b>	<b>C = Control NR = Not Recommended S = Suppression</b>
Starbur, bristly	<i>Acanthospermum hispidum</i>	C	C
Sunflower, common	<i>Helianthus annuus</i>	C	C
Sunflower, prairie	<i>Corythucha pura</i>	C	C
Sunflower, volunteer	<i>Girassol</i>	C	C
Thistle, Russian <sup>2</sup>	<i>Salsola kali</i>	S <sup>2</sup>	C <sup>2</sup>
Velvetleaf	<i>Abutilon theophrasti</i>	C	C
Waterhemp, common	<i>Amaranthus rudis</i>	NR	C
Waterhemp, tall	<i>Amaranthus tuberculatos</i>	NR	C

<sup>1</sup> Volunteer LibertyLink crops from the previous year will not be controlled.

<sup>2</sup> May require sequential applications for control.

<sup>3</sup> For optimum control apply LPI Glufosinate 280 on 6" marestail

<b>Table 2. Grass Weeds Controlled (including Glyphosate-, Triazine-, PPO-, ALS-, HPPD-, and Auxin-Resistant Biotypes)</b>			
<b>Common Name</b>	<b>Scientific Name</b>	<b>22.0 fl oz/A (0.40 lbs ai/A)</b>	<b>29.0 - 43.0 fl oz/A (0.53 - 0.79 lbs ai/A)</b>
		<b>C = Control NR = Not Recommended S = Suppression</b>	<b>C = Control NR = Not Recommended S = Suppression</b>
Barley, volunteer <sup>2</sup>		C <sup>2</sup>	C <sup>2</sup>
Barnyardgrass	<i>Echinochloa spec.</i>	C	C
Bluegrass, annual L.	<i>Poa annua L.</i>	C	C
Corn, volunteer <sup>1</sup>	<i>Zea mays L.</i>	C <sup>1</sup>	C <sup>1</sup>
Crabgrass, large <sup>3</sup>	<i>Digitaria sanguinalis</i>	C <sup>3</sup>	C <sup>3</sup>
Crabgrass, smooth <sup>3</sup>	<i>Digitaria ischaemum</i>	C <sup>3</sup>	C <sup>3</sup>
Cupgrass, woolly	<i>Eriochloa villosa</i>	C	C
Foxtail, bristly	<i>Setaria verticillata</i>	C	C
Foxtail, giant	<i>Setaria faberi</i>	C	C
Foxtail, green	<i>Setaria viridis</i>	C	C
Foxtail, robust purple	<i>Setaria viridis</i>	C	C
Foxtail, yellow <sup>3</sup>	<i>Pennisetum glaucum</i>	C <sup>3</sup>	C <sup>3</sup>
Goosegrass <sup>2</sup>	<i>Eleusine indica</i>	C <sup>2</sup>	C <sup>2</sup>
Johnsongrass, seedling	<i>Sorghum halepense</i>	C	C
Junglerice	<i>Echinochloa colonum</i>	C	C
Millet, wild-proso	<i>Panicum miliaceum L.</i>	C	C
Millet, proso volunteer	<i>Milium vernale</i>	C	C
Oat, wild <sup>3</sup>	<i>Avena fatua</i>	C <sup>3</sup>	C <sup>3</sup>
Panicum, fall	<i>Panicum dichotomiflorum</i>	C	C
Panicum, Texas	<i>Panicum texanum</i>	C	C
Rice, red	<i>Oryza sativa L.</i>	C	C
Sandbur, field	<i>Cenchrus pauciflorus</i>	S <sup>3</sup>	C <sup>3</sup>
Shattercane	<i>Sorghum vulgare PERS.</i>	C	C
Signalgrass, broadleaf	<i>Brachiaria platyphylla</i>	C	C
Sprangletop	<i>Leptochloa spec.</i>	C	C
Sorghum, volunteer	<i>Sorghum spp.</i>	C	C
Stinkgrass	<i>Eragrostis cilianensis</i>	C	C
Wheat, volunteer <sup>2,3</sup>	<i>Triticum spec.</i>	C <sup>2,3</sup>	C <sup>2,3</sup>
Witchgrass	<i>Panicum virgatum L.</i>	C	C

<sup>1</sup> Volunteer LibertyLink crops from the previous year will not be controlled. A timely cultivation 7 to 10 days after an application

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and/or retreatment 10 to 21 days after the first application is needed for controlling dense clumps of volunteer corn.

<sup>2</sup> May require sequential applications for control.

<sup>3</sup> For best control of yellow foxtail, field sandbur, crabgrass, and wild oats, treat prior to tiller initiation.

<b>Table 3. Biennial and Perennial Weeds Controlled (including Glyphosate-, Triazine-, PPO-, ALS-, HPPD-, and Auxin-Resistant Biotypes)</b>		
<b>For control of the biennial and perennial weeds listed below, tank mix partners or sequential applications of LPI Glufosinate 280 are specified by crop (see crop sections)</b>		
<b>Common Name</b>	<b>Scientific Name</b>	<b>22.0 fl oz/A (0.40 lbs ai/A)</b>
		<b>C = Control NR = Not Recommended</b>
Alfalfa	<i>Medicago sativa L.</i>	C
Bermudagrass	<i>Cynodon dactylon</i>	C
Bindweed, field	<i>Convolvulus arvensis L.</i>	C
Bindweed, hedge	<i>Calystegia sepium</i>	C
Bluegrass, Kentucky	<i>Poa pratensis L.</i>	C
Blueweed, Texas	<i>Helianthus ciliaris DC.</i>	C
Bromegrass, smooth	<i>Bromus inermis</i>	C
Burdock	<i>Arctium spp.</i>	C
Bursage, woollyleaf	<i>Ambrosia grayi</i>	C
Chickweed, Mouse-ear	<i>Cerastium vulgatum L.</i>	C
Clover, red	<i>Trifolium pretense L.</i>	C
Dandelion	<i>Taraxacum officinale</i>	C
Dock, smooth	<i>Rumex spec.</i>	C
Dogbane, hemp	<i>Apocynum cannabinum</i>	S
Goldenrod, gray	<i>Solidago nemoralis</i>	S
Johnsongrass, rhizome	<i>Sorghum halepense</i>	C
Milkweed, common	<i>Asclepias syriaca</i>	S
Milkweed, honeyvine	<i>Ampelamus albidus</i>	S
Muhly, wirestem	<i>Muhlenbergia frondosa</i>	S
Nightshade, silverleaf	<i>Solanum elaeagnifolium</i>	C
Nutsedge, purple	<i>Cyperus rotundus</i>	S
Nutsedge, yellow	<i>Cyperus ferax</i>	S
Orchardgrass	<i>Dactylis glomerata L.</i>	C
Poinsettia, wild	<i>Euphorbia heterophylla L.</i>	C
Pokeweed	<i>Phytolaccaceae</i>	C
Quackgrass	<i>Agropyron repens</i>	S
Sowthistle, perennial	<i>Sonchus arvensis L.</i>	C
Thistle, bull	<i>Cirsium vulgare</i>	C
Thistle, Canada	<i>Cirsium arvense</i>	C
Timothy	<i>Phleum pretense L.</i>	S
Wormwood, biennial	<i>Artemisia biennis</i>	S

## APPLICATION AND MIXING PROCEDURES

Uniform, thorough spray coverage is important to achieve consistent weed control.

### GROUND APPLICATION

- Apply early when weeds are small with directed rates as identified in the Rate Tables for each crop.
- Use nozzles and pressure that generate a MEDIUM to COARSE size spray droplet. NOTE: Weed control with very coarse, extremely coarse or ultra-coarse nozzles will not provide adequate coverage and will cause unsatisfactory weed control.
- Apply LPI Glufosinate 280 in a minimum of 15.0 gallons of water per acre. Increase to 20.0 gallons of water per acre if dense weed canopy exists.
- Apply at ground speed of less than 15 mph to attain adequate coverage.
- Apply when wind speeds are between 2 mph and 10 mph. DO NOT apply when winds are gusty, or when conditions will favor movement of spray particles off the desired spray target. See the *Spray Drift Management* section of this label for additional information on proper application of LPI Glufosinate 280.

### AERIAL APPLICATION

- Apply early when weeds are small with directed rates as identified in the Rate Tables.
- Use nozzles and pressure that generate a MEDIUM to COARSE size spray droplet. NOTE: Weed control with very coarse, extremely coarse or ultra-coarse nozzles will not provide adequate coverage and will cause unsatisfactory weed control.
- Apply LPI Glufosinate 280 in a minimum of 10.0 gallons of water per acre.
- See the **Spray Drift Management** section of this label for additional information on proper application of LPI Glufosinate 280.

### APPLICATION AND MIXING RESTRICTIONS

- DO NOT apply when winds are gusty, or when conditions will favor movement of spray particles off the desired spray target. See the *Spray Drift Management* section of this label for additional information on proper application of LPI Glufosinate 280.
- **Do not use flood jet nozzles, controlled droplet application equipment, or air-assisted spray equipment.**

### COMPATIBILITY TESTING

If LPI Glufosinate 280 is to be mixed with pesticide products not listed on this label, test the compatibility of the intended tank mixture prior to mixing the products in the spray tank. The following procedure assumes a spray volume of 25.0 gallons per acre. For other spray volumes, adjust the amount of the water used accordingly. Check compatibility as follows:

1. Place 1.0 pint of water from the source that will be used to prepare the spray solution in a clear 1.0 quart jar.
2. For each pound of a dry tank mix partner to be applied per acre, add 1.5 teaspoons to the jar.
3. For each 16.0 fluid ounces of a liquid tank mix partner to be applied per acre, add 0.5 teaspoon to the jar.
4. For each 16.0 fluid ounces of LPI Glufosinate 280 to be applied per acre, add 0.5 teaspoon to the jar.
5. After adding all the ingredients, place a lid on the jar and tighten. Invert 10 times to mix.
6. Let the mixture stand for 15 minutes, and evaluate the solution for uniformity and stability. Look for separation, large flakes, precipitates, gels, heavy oily film on the jar, or other signs of incompatibility. If the tank mix partners are not compatible, do not use the mixture in a spray tank.
7. After compatibility testing is complete, dispose of any pesticide wastes in accordance with the *Storage and Disposal* section of this label.

### MIXING INSTRUCTIONS

**Tank Mix Instructions:** LPI Glufosinate 280 may be applied in tank mix combinations with labeled rates of other products provided these other products are labeled for the timing and method of application for the crop to be treated. The tank mix partner must be used in accordance with the label limitations and precautions. No label dosage rates may be exceeded. LPI Glufosinate 280 cannot be mixed with any product containing a label prohibition against such mixing. Refer to the specific crop section for rates and other restrictions.

LPI Glufosinate 280 is formulated to mix readily in water. Prior to adding LPI Glufosinate 280 to the spray tank, ensure that the spray tank is thoroughly clean, particularly if a herbicide with the potential to injure crops was previously used (see *Cleaning Instructions*). It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable

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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.

**MIXING INSTRUCTIONS FOR LPI Glufosinate 280**

1. Start with properly calibrated and clean equipment.
2. Fill the spray tank half full with water.
3. Start agitation.
4. If mixing with a flowable/wettable powder tank mix partner. Prepare a slurry of the proper amount of the product in a small amount of water. Add the slurry to the spray tank.
5. Add ammonium sulfate (AMS) to the spray tank if needed.
6. If mixing with a liquid tank mix partner, add the liquid mix partner next.
7. Complete filling the spray tank with water before adding LPI Glufosinate 280, as foaming may occur.
8. Add LPI Glufosinate 280 when tank is full and continue agitation.
9. If foaming occurs, use a silicone-based antifoam agent.

Ensure that all spray system lines including pipes, booms, etc. have the correct concentration of spray solution by flushing out the spray system lines before starting the crop application.

If tank mix partners recommended on this label are added, maintain good agitation at all times until contents of the tank are sprayed. If the spray mixture is allowed to settle, thorough agitation is required to resuspend the mixture before spraying is resumed. Keep bypass line on or near bottom of tank to minimize foaming. Screen size in nozzles or line strainers must be 50 mesh or larger.

**CLEANING INSTRUCTIONS**

Before using LPI Glufosinate 280, thoroughly clean bulk storage tank, refillable tank, nurse tanks, spray tank, lines, and filter, particularly if an herbicide with the potential to injure crops was previously used. Equipment should be thoroughly rinsed using a commercial tank cleaner.

After using LPI Glufosinate 280, triple rinse the spray equipment and clean with a commercial tank cleaner before using for crops not labeled LibertyLink. Make sure any rinsate or foam is thoroughly removed from spray tank and boom. Rinsate may be disposed following the pesticide disposal directions on this label.

**SPRAY DRIFT MANGEMENT**

Spray drift may result in injury to non-target crops or vegetation. To avoid spray drift, do not apply when wind speed is greater than 10 MPH or during periods of temperature inversions. Do not apply when weather conditions, wind speed or wind direction may cause spray drift to non target areas. AVOIDING SPRAY DRIFT AT THE APPLICATION SITE IS THE RESPONSIBILITY OF THE APPLICATOR.

- All aerial and ground application equipment must be properly maintained and calibrated using appropriate carriers.
- For all non-aerial applications, wind speed must be measured adjacent to the application site, on the upwind side, immediately prior to application.

**Sensitive Areas:** The pesticide should only be applied when the potential for drift to adjacent sensitive areas (e.g., residential areas, bodies of water, known habitats for threatened or endangered species, non-target crops) is minimal (e.g., when wind is blowing away from the sensitive areas).

Do not apply under circumstances where possible drift to unprotected persons or to food, forage, or other plantings that might be damaged or crops thereof rendered unfit for sale use, or consumption can occur.

### **MANDATORY SPRAY DRIFT MITIGATION**

- 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 ft 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**

The interaction of many equipment and weather-related factors determines the potential for spray drift. The applicator is responsible for considering all these factors when making application decisions.

### **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.

### **Controlling Droplet Size – Ground Boom**

- 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 should 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 from 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 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.

### **APPLICATION DIRECTIONS FOR BURNDOWN USE**

LPI Glufosinate 280 may be applied as a **burndown treatment prior to planting or prior to emergence** of any conventional or transgenic variety of canola, corn, cotton, soybean or sugar beet.

#### **Application Timing:**

Apply to small and actively growing weeds, targeting less than 3 inch weeds in height. For additional information on weed heights refer to the **WEED CONTROL FOR ROW CROPS** section. Warm temperatures, high humidity, and bright sunlight improve the performance of LPI Glufosinate 280. 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.

LPI Glufosinate 280 is rainfast 4 hours after application, therefore, rainfall within 4 hours may necessitate retreatment.

#### **Application Rates:**

Apply 29.0 to 43.0 fluid ounces per acre (0.53 to 0.79 lbs active ingredient per acre) of LPI Glufosinate 280 depending on crop, weed species and intention of post application use. Please see application charts below.

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- In **cotton**, if environmental conditions prevent timely applications, a single application may be made of up to 43.0 fluid ounces per acre (0.79 lbs ai/A) of LPI Glufosinate 280. **If more than 29.0 fluid ounces per acre are used in any single application, the annual total may not exceed 72.0 fluid ounces per acre (1.32 lbs ai/A), 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 per acre (0.79 lbs ai/A) of LPI Glufosinate 280. The year total may not exceed 43.0 fluid ounces per acre (0.79 lbs ai/A), including all application timings, for non-LL crops.
- [In **sugar beets**, if environmental conditions prevent timely applications, a single application may be made of up to 36.0 fluid ounces per acre (0.66 lbs ai/A) of LPI Glufosinate 280. No additional applications of LPI Glufosinate 280 may be made post emergence to the crop during the growing year.]

**Adjuvant:**

Ammonium sulfate (AMS) may be used at 1.5 to 3.0 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.

**Table 4. APPLICATION DIRECTIONS FOR NON-LL CROPS**

Crop	Burndown	In Season Applications	Annual Max
Cotton Use Pattern 1	29.0 fl oz/A (0.53 lbs ai/A)	2 applications at 29.0 fl oz/A* (0.53 lbs ai/A)	87.0 fl oz/A (1.59 lbs ai/A)
Cotton Use Pattern 2	30.0 to 43.0 fl oz/A (0.55 to 0.79 lbs ai/A)	1 application at 29.0 fl oz/A* (0.53 lbs ai/A)	72.0 fl oz/A (1.32 lbs ai/A)
Canola, Soybean, Field Corn, Sweet Corn	29.0 to 43.0 fl oz/A (0.53 to 0.79 lbs ai/A)	None	43.0 fl oz/A (0.79 lbs ai/A)
Sugar beets	29.0 to 36.0 fl oz/A (0.53 to 0.66 lbs ai/A)	None	36.0 fl oz/A (0.66 lbs ai/A)

\*Cotton containing the LibertyLink trait OR with hooded sprayer for all varieties (see **COTTON** use directions).

**Table 5. APPLICATION DIRECTIONS FOR CROPS CONTAINING LIBERTYLINK TRAIT**

Crop	Burndown	In Season Applications of Crops Containing the LibertyLink® (LL) Trait	Annual Max
LL Soybean, LL Field Corn	29.0 to 43.0 fl oz/A (0.53 to 0.79 lbs ai/A)	1 to 2 applications at 29 to 43 fl oz/A (0.53 to 0.79 lbs ai/A)	87.0 fl oz/A (1.59 lbs ai/A)
LL Sweet Corn	22.0 fl oz/A (0.40 lbs ai/A)	1 to 2 applications at 22.0 fl oz/A (0.4 lbs ai/A)	44.0 fl oz/A (0.8 lbs ai/A)
LL Canola	29.0 to 43.0 fl oz/A (0.53 to 0.79 lbs ai/A)	1 to 2 applications at 29.0 fl oz/A (0.53 lbs ai/A)	87.0 fl oz/A (1.59 lbs ai/A)
LL Cotton Use Pattern 1	29.0 fl oz/A (0.53 lbs ai/A)	1 to 2 applications at 29.0 fl oz/A* (0.53 lbs ai/A)	87.0 fl oz/A (1.59 lbs ai/A)
LL Cotton Use Pattern 2	30.0 to 43.0 fl oz/A (0.55 to 0.79 lbs ai/A)	1 application at 29.0 fl oz/A* (0.53 lbs ai/A)	72.0 fl oz/A (1.32 lbs ai/A)
LL Sugar beets	29.0 to 36.0 fl oz/A (0.53 to 0.66 lbs ai/A)	1 application at 29.0 fl oz/A (0.53 lbs ai/A)	60.0 fl oz/A (1.1 lbs ai/A)

\*Cotton containing the LibertyLink trait OR with hooded sprayer for all varieties (see **COTTON** use directions).

**APPLICATION DIRECTIONS FOR USE ON SUGAR BEETS CONTAINING THE LIBERTYLINK TRAIT**

**[Not for use in California.]**

Apply LPI Glufosinate 280 only to sugar beets containing LibertyLink trait. LPI Glufosinate 280 is a contact herbicide and requires uniform, thorough spray coverage to achieve optimum weed control.

**Application Timing:**

Apply to small and actively growing weeds, targeting less than 3 inch weeds in height. For additional information on weed heights refer to the WEED CONTROL FOR ROW CROPS section.

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For Best results, warm temperatures, high humidity, and bright sunlight improve the performance of LPI Glufosinate 280.

Weed control may be reduced if application is made when heavy dew, fog, and mist/rain are present; or when weeds are under stress due to drought, cool temperatures, or extended periods of cloudiness.

To avoid the possibility of reduced lambsquarters, Palmer amaranth and velvetleaf control, applications should be made between dawn and 2 hours before sunset.

Applications of LPI Glufosinate 280 on sugar beets containing the LibertyLink trait may be made from the cotyledon stage up to the 10-leaf stage of the sugar beet. LPI Glufosinate 280 is a foliar-active material with little or no soil-residual activity.

LPI Glufosinate 280 is rainfast 4 hours after application, therefore, rainfall within 4 hours may necessitate retreatment.

**Application Rates:**

Apply 29.0 to 36.0 fluid ounces per (0.53 to 0.66 lbs ai/A) depending on weed species, size and density per weed chart. If a second application is needed, make the second application in a minimum of 10 days after the first application. The maximum annual rate of LPI Glufosinate 280 on sugar beets is 60.0 fluid ounces per acre (1.1 lbs ai/A).

Use a minimum spray volume of 15.0 gallons per acre, unless there is a difficult to control situation (such as dense canopy, large weeds or unfavorable growing conditions are present). In difficult to control situations use a minimum spray volume of 20.0 gallons per acre.

**Adjuvants:**

Ammonium sulfate (AMS) may be used at 1.5 to 3.0 pounds per acre. Adjuvant rates are dependent on a variety of factors including tank mix partners, environmental conditions (such as temperature) 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 (such as low relative humidity) or hard water.

The use of an anti-foam agent is recommended.

**Surfactants / Oils:**

The use of additional surfactants or crop oils in tank mixes with LPI Glufosinate 280 may increase the risk of crop response. Please refer to the surfactant label for more detailed information.

**Nozzle Spray Quality:**

Use medium to coarse nozzles.

LPI Glufosinate 280 is a contact herbicide and requires proper nozzles with uniform thorough spray coverage to achieve optimum weed control.

**Restrictions to the Directions For Use on Sugar Beets Containing the LibertyLink Trait:**

1. **DO NOT** apply more than 60.0 fluid ounces per acre (1.1 lbs ai/A) of LPI Glufosinate 280 on the sugar beet crop per year.
2. **DO NOT** apply LPI Glufosinate 280 within 60 days of harvesting sugar beets.
3. **DO NOT** plant rotation crops in a field treated with LPI Glufosinate 280 within 120 days after the last application of LPI Glufosinate 280 with the exception of wheat, barley, buckwheat, millet, oats, rye, sorghum, and triticale which may be planted 70 days after the last application of LPI Glufosinate 280. Corn, soybeans, canola, and sugar beets tolerant to the active ingredient of LPI Glufosinate 280 may be planted at any time.
4. **DO NOT** graze the treated crop or cut for hay.
5. **DO NOT** apply LPI Glufosinate 280 if sugar beets show injury from prior herbicide applications or environmental stress (drought, excessive rainfall, etc.).
6. **DO NOT** apply LPI Glufosinate 280 through any type of irrigation system.



### **APPLICATION DIRECTIONS FOR USE ON CANOLA CONTAINING THE LIBERTYLINK TRAIT**

Apply LPI Glufosinate 280 only to canola labeled as Libertylink. Uniform, thorough spray coverage is necessary to achieve consistent weed control.

#### **Application Timing:**

Apply to small and actively growing weeds, targeting less than 3 inch weeds in height. For additional information on weed heights refer to the **WEED CONTROL FOR ROW CROPS** section.

Weed control may be reduced if application is made when heavy dew, fog, and mist/rain are present; or when weeds are under stress due to environmental conditions such as drought, cool temperatures, or extended periods of cloudiness.

Applications of LPI Glufosinate 280 on canola containing the LibertyLink trait may be made from the cotyledon stage up to the early bolt stage of the canola. Slight discoloration of the canola may be visible after application. This effect is temporary and will not influence crop growth, maturity, or yield.

LPI Glufosinate 280 is a foliar-active material with little or no soil-residual activity.

LPI Glufosinate 280 is rainfast 4 hours after application, therefore, rainfall within 4 hours may necessitate retreatment.

For best result:

- On lambsquarters, Palmer amaranth and velvetleaf control, make applications of LPI Glufosinate 280 between dawn and 2 hours before sunset.
- Warm temperatures, high humidity, and bright sunlight improve the performance of LPI Glufosinate 280.

#### **Application Rates:**

Apply LPI Glufosinate 280 at 22.0 to 29.0 fluid ounces per acre (0.4 to 0.53 lbs ai/A) per application, depending on weed species, size and density per weed chart.

If a second application is needed, make the second application in a minimum of 7 days after the first application.

The maximum annual rate of LPI Glufosinate 280 on canola is 87.0 fluid ounces per acre (1.59 lbs ai/A).

Use a minimum spray volume of 15.0 gallons per acre, unless there is a difficult to control situation (such as dense canopy, large weeds or unfavorable growing conditions are present). In difficult to control situations use a minimum spray volume of 20.0 gallons per acre.

#### **Application Rates with 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 mixture.

Apply LPI Glufosinate 280 at 22.0 to 29.0 fluid ounces per acre (0.40 to 0.53 lbs ai/A) per application, depending on weed species, size and density per weed chart.

Tank mix partners recommended to enhance grass control, such as [quizalofop p-ethyl][,] [sethoydim][,] [and] [clethodim].

If a second application is needed, make the second application in a minimum of 7 days after the first application.

Tank mixes may aid in the performance of LPI Glufosinate 280. Please refer to weed chart tables for a listing of weed species controlled at this rate.

No additional surfactant is needed with any tank mix partner.

The tank mix partner must be used in accordance with the label limitations, restrictions and precautions.

Do not exceed any labeled dosage rates.

Do not mix LPI Glufosinate 280 mix with any product containing a label prohibition against such mixing.

**Adjuvants:**

Ammonium sulfate (AMS) may be used at 1.5 to 3.0 pounds per acre. Adjuvant rates are dependent on a variety of factors including tank mix partners, environmental conditions (such as temperature) 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 (such as low relative humidity) or hard water.

The use of an anti-foam agent is recommended.

**Surfactants / Oils:**

The use of additional surfactants or crop oils in tank mixes with LPI Glufosinate 280 may increase the risk of crop response. Please refer to the surfactant label for more detailed information.

**Nozzle Spray Quality:**

Use medium to coarse nozzles.

LPI Glufosinate 280 is a contact herbicide and requires proper nozzles with uniform thorough spray coverage to achieve optimum weed control.

See **SPRAY DRIFT MANAGEMENT** section for more detailed information.

**Restrictions to the Directions For Use on Canola Containing the LibertyLink Trait:**

- **DO NOT** use on canola containing the LibertyLink trait in the states of Alabama, Delaware, Georgia, Kentucky, Maryland, New Jersey, North Carolina, South Carolina, Tennessee, Virginia and West Virginia.
- **DO NOT** apply more than 2 applications of LPI Glufosinate 280 per year. Sequential applications must be at least 10 days apart.
- **DO NOT** apply LPI Glufosinate 280 within 65 days of harvesting canola.
- **DO NOT** apply more than 87.0 fluid ounces per acre (1.59 lbs ai/A) of LPI Glufosinate 280 per year.
- **DO NOT** graze the treated crop or cut for hay.
- **DO NOT** apply LPI Glufosinate 280 if canola shows injury from prior herbicide applications or environmental stress (drought, excessive rainfall, etc.).
- **DO NOT** apply LPI Glufosinate 280 through any type of irrigation system.
- Refer to the **ROTATIONAL CROP RESTRICTIONS** section under the **PRODUCT INFORMATION** heading of this label for the appropriate rotational crop plant back intervals.

**APPLICATION RATE AND TIMING FOR CANOLA CONTAINING LIBERTYLINK TRAIT SEED PROPAGATION**

**[Not for use in California]**

Up to 3 applications of LPI Glufosinate 280 at up to 29.0 fluid ounces per acre per application (0.53 lbs ai/A per application) may be made to canola for transgenic seed propagation. Applications may be made from the cotyledon stage up to the early bolting stage (e.g., BBCH 18-30, between just prior to stem elongation/bolting, 8 or more leaves and beginning of stem elongation, no internodes).

**Restrictions to the Directions for Canola Containing the LibertyLink Trait for Seed Propagation:**

- **DO NOT** apply more than 3 applications of LPI Glufosinate 280 at up to 29.0 fluid ounces per acre per application per year (0.53 lbs ai/A per application per year).
- **DO NOT** apply more than 87.0 fluid ounces per acre (1.59 lbs ai/A) of LPI Glufosinate 280 per year.
- **DO NOT** apply LPI Glufosinate 280 beyond the early bolting stage or within 65 days of harvesting canola seed.
- **DO NOT** use treated canola seed for food, feed or oil purposes.
- **DO NOT** apply LPI Glufosinate 280 if canola shows injury from prior herbicide applications or environmental stress (drought, excessive rainfall, etc.).

- **DO NOT** apply this product through any type of irrigation system.

## **APPLICATION DIRECTIONS FOR USE ON SWEET CORN CONTAINING THE LIBERTYLINK TRAIT**

**[Not for use in California.]**

Apply LPI Glufosinate 280 only to sweet corn containing the LibertyLink trait. Uniform, thorough spray coverage is necessary to achieve consistent weed control.

### **Application Timing:**

Apply to small and actively growing weeds, targeting less than 3 inch weeds in height. For additional information on weed heights refer to the **WEED CONTROL FOR ROW CROPS** section.

For Best results, warm temperatures, high humidity, and bright sunlight improve the performance of LPI Glufosinate 280.

Weed control may be reduced if application is made when heavy dew, fog, and mist/rain are present; or when weeds are under stress due to drought, cool temperatures, or extended periods of cloudiness.

To avoid the possibility of reduced lambsquarters, Palmer amaranth and velvetleaf control, applications should be made between dawn and 2 hours before sunset.

Applications for LPI Glufosinate 280 on sweet corn may be made from emergence until the V-6 stage of growth.

LPI Glufosinate 280 is a foliar-active material with little or no soil-residual activity.

LPI Glufosinate 280 is rainfast 4 hours after application, therefore, rainfall within 4 hours may necessitate retreatment.

### **Application Rate:**

Apply LPI Glufosinate 280 at 22.0 fluid ounces per acre (0.4 lbs ai/A), depending on weed species, size and density per weed chart.

If a second application is needed, make the second application in a minimum of 7 days after the first application.

The maximum annual rate of LPI Glufosinate 280 on sweet corn is 44.0 fluid ounces per acre (0.8 lbs ai/A).

Use a minimum spray volume of 15.0 gallons per acre, unless there is a difficult to control situation (such as dense canopy, large weeds or unfavorable growing conditions are present). In difficult to control situations use a minimum spray volume of 20.0 gallons per acre.

### **Application Rates with 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 mixture.

Apply LPI Glufosinate 280 at 22.0 fluid ounces per acre (0.4 lbs ai/A) per application, depending on weed species, size and density per weed chart.

Recommended tank mix partners, such as [atrazine][,] [tembotrione][,] [thiencarbazone-methyl][,][and] [dicamba, DGA salt].

If a second application is needed, make the second application in a minimum of 7 days after the first application.

Tank mixes may aid in the performance of LPI Glufosinate 280. Please refer to weed chart tables for a listing of weed species controlled at this rate.

No additional surfactant is needed with any tank mix partner.

The tank mix partner must be used in accordance with the label limitations, restrictions and precautions.

Do not exceed any labeled dosage rates.

Do not mix LPI Glufosinate 280 mix with any product containing a label prohibition against such mixing.

**Adjuvants:**

Ammonium sulfate (AMS) may be used at 1.5 to 3.0 pounds per acre. Adjuvant rates are dependent on a variety of factors including tank mix partners, environmental conditions (such as temperature) 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 (such as low relative humidity) or hard water.

The use of an anti-foam agent is recommended.

**Surfactants / Oils:**

The use of additional surfactants or crop oils in tank mixes with LPI Glufosinate 280 may increase the risk of crop response. Please refer to the surfactant label for more detailed information.

**Nozzle Spray Quality:**

Use medium to coarse nozzles.

LPI Glufosinate 280 is a contact herbicide and requires proper nozzles with uniform thorough spray coverage to achieve optimum weed control.

See **SPRAY DRIFT MANAGEMENT** section for more detailed information.

**Restrictions to the Directions For Use on Sweet Corn Containing the LibertyLink Trait:**

- **DO NOT** apply LPI Glufosinate 280 within 50 days of harvesting sweet corn ears and within 55 days of harvesting stover.
- **DO NOT** apply more than 44.0 fluid ounces per acre (0.8 lbs ai/A) of LPI Glufosinate 280 on sweet corn per year.
- **DO NOT** apply more than 2 applications of LPI Glufosinate 280 to the sweet corn crop. Sequential applications must be at least 7 days apart.
- If LPI Glufosinate 280 was used in a burndown application, no post emergence applications may be applied to the crop.
- **DO NOT** use nitrogen solutions as spray carriers.
- **DO NOT** apply LPI Glufosinate 280 if corn shows injury from prior herbicide applications or environmental stress (drought, excessive rainfall, etc.)
- **DO NOT** apply LPI Glufosinate 280 through any type of irrigation system.

Refer to the **ROTATIONAL CROP RESTRICTIONS** section under the **PRODUCT INFORMATION** heading of this label for the appropriate rotational crop plant back intervals.

See **APPLICATION DIRECTIONS FOR USE ON FIELD CORN AND SILAGE CORN** for **APPLICATION METHODS, MIXING INSTRUCTIONS,** and **WEED CONTROL TABLES.**

**APPLICATION DIRECTIONS FOR USE ON FIELD CORN AND SILAGE CORN CONTAINING THE  
LIBERTYLINK TRAIT**

Apply LPI Glufosinate 280 only to corn labeled as LibertyLink. Uniform, thorough spray coverage is necessary to achieve consistent weed control.

**Application Timing:**

Apply to small and actively growing weeds, targeting less than 3 inch weeds in height. For additional information on weed heights refer to the **WEED CONTROL FOR ROW CROPS** section.

Weed control may be reduced if application is made when heavy dew, fog, and mist/rain are present; or when weeds are under stress due to drought, cool temperatures, or extended periods of cloudiness.

Applications for LPI Glufosinate 280 on corn may be made from emergence until the V-6 stage of growth.

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LPI Glufosinate 280 is a foliar-active material with little or no soil-residual activity.

LPI Glufosinate 280 is rainfast 4 hours after application, therefore, rainfall within 4 hours may necessitate retreatment. For best result:

- On lambsquarters, Palmer amaranth and velvetleaf control, make applications of LPI Glufosinate 280 between dawn and 2 hours before sunset.
- Warm temperatures, high humidity, and bright sunlight improve the performance of LPI Glufosinate 280.

**Application Rate:**

Apply LPI Glufosinate 280 at 29.0 to 43.0 fluid ounces per acre (0.53 to 0.79 lbs ai/A), depending on weed species, size and density per weed chart.

If a second application is needed, make the second application at up to 29.0 fluid ounces per acre (0.53 lbs ai/A) with a minimum of 7 days after the first application.

The maximum annual rate of LPI Glufosinate 280 on field corn and silage corn is 87.0 fluid ounces per acre (1.59 lbs ai/A).

Use a minimum spray volume of 15.0 gallons per acre, unless there is a difficult to control situation (such as dense canopy, large weeds or unfavorable growing conditions are present). In difficult to control situations use a minimum spray volume of 20.0 gallons per acre.

**Application Rates with 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 mixture.

Apply LPI Glufosinate 280 at 29.0 to 43.0 fluid ounces per acre (0.53 to 0.79 lbs ai/A), depending on weed species, size and density per weed chart.

Recommended tank mix partners, such as [atrazine][,] [tembotrione][,] [thiencarbazone-methyl][,][and] [dicamba, DGA salt].

If a second application is needed, make the second application in a minimum of 7 days after the first application.

Tank mixes may aid in the performance of LPI Glufosinate 280. Please refer to weed chart tables for a listing of weed species controlled at this rate.

No additional surfactant is needed with any tank mix partner.

The tank mix partner must be used in accordance with the label limitations, restrictions and precautions.

Do not exceed any labeled dosage rates.

Do not mix LPI Glufosinate 280 mix with any product containing a label prohibition against such mixing.

**Adjuvants:**

Ammonium sulfate (AMS) may be used at 1.5 to 3.0 pounds per acre. Adjuvant rates are dependent on a variety of factors including tank mix partners, environmental conditions (such as temperature) 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 (such as low relative humidity) or hard water.

The use of an anti-foam agent is recommended.

**Surfactants / Oils:**

The use of additional surfactants or crop oils in tank mixes with LPI Glufosinate 280 may increase the risk of crop response. Please refer to the surfactant label for more detailed information.

**Nozzle Spray Quality:**

Use medium to coarse nozzles.

LPI Glufosinate 280 is a contact herbicide and requires proper nozzles with uniform thorough spray coverage to achieve optimum weed control.

See **SPRAY DRIFT MANAGEMENT** section for more detailed information.

**Restrictions to the Directions For Use on Field Corn and Corn Silage Containing LibertyLink Trait:**

- **DO NOT** apply LPI Glufosinate 280 within 60 days of harvesting corn forage and within 70 days of harvesting corn grain and corn fodder.
- **DO NOT** apply more than 2 applications of LPI Glufosinate 280 to the crop. Sequential applications must be at least 10 days apart.
- **DO NOT** apply more than 87.0 fluid ounces per acre (1.59 lbs ai/A) of LPI Glufosinate 280 on corn per year.
- **DO NOT** use nitrogen solutions as spray carriers.
- **DO NOT** apply LPI Glufosinate 280 if corn shows injury from prior herbicide applications or environmental stress (drought, excessive rainfall, etc.)
- **DO NOT** apply LPI Glufosinate 280 through any type of irrigation system.

Refer to the **ROTATIONAL CROP RESTRICTIONS** section under the **PRODUCT INFORMATION** heading of this label for the appropriate rotational crop plant back intervals.

**APPLICATION DIRECTIONS FOR USE ON COTTON CONTAINING THE LIBERTY LINK TRAIT**

Uniform, thorough spray coverage is necessary to achieve consistent weed control. LPI Glufosinate 280 may be applied as a broadcast, over-the-top, post-emergence spray or as a directed spray only to cotton containing the LibertyLink trait.

**Application Timing:**

Apply to small and actively growing weeds, targeting less than 3 inch weeds in height. For additional information on weed heights refer to the **WEED CONTROL FOR ROW CROPS** section.

Weed control may be reduced if application is made when heavy dew, fog, and mist/rain are present; or when weeds are under stress due to drought, cool temperatures, or extended periods of cloudiness.

LPI Glufosinate 280 is a foliar-active material with little or no soil-residual activity.

LPI Glufosinate 280 is rainfast 4 hours after application, therefore, rainfall within 4 hours may necessitate retreatment.

For best result:

- On lambsquarters, Palmer amaranth and velvetleaf control, make applications of LPI Glufosinate 280 between dawn and 2 hours before sunset.
- Warm temperatures, high humidity, and bright sunlight improve the performance of LPI Glufosinate 280.

Apply LPI Glufosinate 280 to cotton from emergence up to the early bloom stage at 29.0 fluid ounces per acre (0.53 lbs ai/A). Should environmental conditions prevent a timely herbicide application, a single application of up to 43.0 fluid ounces per acre (0.79 lbs ai/A) of LPI Glufosinate 280 may be made to cotton. If more than 29.0 fluid ounces per acre (0.53 lbs ai/A) are used in any single application, the annual total may not exceed 72.0 fluid ounces per acre (1.32 lbs ai/A), including all application timings. See **Restrictions to the Directions for use on Cotton Containing the LibertyLink Trait** below for additional information.

**Application Rates:**

**Option 1**  
**3 post applications**

Apply 29.0 fluid ounces per acre (0.53 lbs ai/A) per application depending on weed species, size and density per weed chart.

If required a second application of 29.0 fluid ounces per acre (0.53 lbs ai/A) can be applied, followed by a third application of 29.0 fluid ounces per acre (0.53 lbs ai/A).

The sequential applications must be made minimum 10 days and should be made up to 14 days after each other.

The maximum annual rate of LPI Glufosinate 280 on cotton is 87.0 fluid ounces per acre (1.59 lbs ai/A).

Use a minimum spray volume of 15.0 gallons per acre, unless there is a difficult to control situation (such as dense canopy, large weeds or unfavorable growing conditions are present). In difficult to control situations use a minimum spray volume of 20.0 gallons per acre.

**Option 2**  
**2 post applications**

Apply 32.0 to 43.0 fluid ounces per acre (0.59 to 0.79 lbs ai/A) per application depending on weed species, size and density per weed chart.

If required a second application of 29.0 fluid ounces per acre (0.53 lbs ai/A) can be applied.

The sequential applications must be made minimum 10 days and should be made up to 14 days after each other.

The maximum annual rate of LPI Glufosinate 280 on cotton is 72.0 fluid ounces per acre (1.32 lbs ai/A).

Use a minimum spray volume of 15.0 gallons per acre, unless there is a difficult to control situation (such as dense canopy, large weeds or unfavorable growing conditions are present). In difficult to control situations use a minimum spray volume of 20.0 gallons per acre.

<b>Use Pattern</b>	<b>1<sup>st</sup> Application</b>	<b>2<sup>nd</sup> Application Minimum 10 Days Up to 14 Days After 1<sup>st</sup> Application</b>	<b>3<sup>rd</sup> Application Minimum 10 Days Up to 14 Days After 2<sup>nd</sup> Application</b>	<b>Annual Maximum</b>
<b>Option 1</b>	29.0 fl oz/A (0.53 lbs ai/A)	29.0 fl oz/A (0.53 lbs ai/A)	29.0 fl oz/A (0.53 lbs ai/A)	87.0 fl oz/A (1.59 lbs ai/A)
<b>Option 2</b>	32.0 to 43.0 fl oz/A (0.59 to 0.79 lbs ai/A)	29.0 fl oz/A (0.53 lbs ai/A)	None	72.0 fl oz/A (1.32 lbs ai/A)

**Tank Mix on Cotton Containing the LibertyLink Trait:**

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.

Certain herbicide tank mixes may aid in the performance of LPI Glufosinate 280. LPI Glufosinate 280 may be applied in tank mix combinations with labeled rates of other products provided these other products are labeled for the timing and method of application for the cotton to be treated. The tank mix partner must be used in accordance with the label limitations and precautions. No label dosage rates may be exceeded. LPI Glufosinate 280 cannot be mixed with any product containing a label prohibition against such mixing.

**Adjuvants:**

Ammonium sulfate (AMS) may be used at 1.5 to 3.0 pounds per acre. Adjuvant rates are dependent on a variety of factors including tank mix partners, environmental conditions (such as temperature) and potential for leaf burn.

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AMS has shown to improve weed control of difficult-to-control weeds, like lambsquarters and velvetleaf, under difficult environmental conditions (such as low relative humidity) or hard water.

The use of an anti-foam agent is recommended.

**Surfactants / Oils:**

The use of additional surfactants or crop oils in tank mixes with LPI Glufosinate 280 may increase the risk of crop response. Please refer to the surfactant label for more detailed information.

**Nozzle Spray Quality:**

Use medium to coarse nozzles.

LPI Glufosinate 280 is a contact herbicide and requires proper nozzles with uniform thorough spray coverage to achieve optimum weed control.

See **SPRAY DRIFT MANAGEMENT** section for more detailed information.

**Restrictions to the Directions For Use on Cotton Containing the LibertyLink Trait:**

- **DO NOT** apply LPI Glufosinate 280 to cotton containing the LibertyLink trait in Florida, South of Tampa (Florida Route 60), or in Hawaii, except for test plots or breeding nurseries.
- **DO NOT** apply LPI Glufosinate 280 within 70 days prior to cotton harvest.
- Up to 3 applications of LPI Glufosinate 280 may be made to cotton per year at a maximum application rate of 29.0 fluid ounces per acre (0.53 lbs ai/A). **DO NOT** apply more than 87.0 fluid ounces (including all application timings) to cotton (1.59 lbs ai/A) per year under this application scenario. Sequential applications must be at least 10 days apart.
- If environmental conditions prevent timely applications resulting in large weeds or heavy infestations, a single application of LPI Glufosinate 280 at up to 43.0 fluid ounces per acre (0.79 lbs ai/A) may be made to cotton. **DO NOT** apply more than 43.0 fluid ounces (0.79 lbs ai/A) of LPI Glufosinate 280 in a single application under this use scenario. If a single application greater than 29.0 fluid ounces (0.53 lbs ai/A) is made, a subsequent application not to exceed 29.0 fluid ounces (0.53 lbs ai/A) may be made to cotton. The annual total use rate under this scenario may not exceed 72.0 fluid ounces (1.32 lbs ai/A) of LPI Glufosinate 280. Sequential applications must be at least 10 days apart.
- **DO NOT** apply LPI Glufosinate 280 through any type of irrigation system.
- Refer to the **ROTATIONAL CROP RESTRICTIONS** section under the **PRODUCT INFORMATION** heading of this label for the appropriate rotational crop plant back intervals.

**APPLICATION DIRECTIONS FOR USE ON COTTON**

Application of LPI Glufosinate 280 to cotton varieties not containing the LibertyLink trait requires the use of hooded spray equipment designed to minimize exposure of the spray to the cotton stand. Uniform, thorough spray coverage is necessary to achieve consistent weed control.

**Application Timing:**

Apply to small and actively growing weeds, targeting less than 3 inch weeds in height. For additional information on weed heights refer to the **WEED CONTROL FOR ROW CROPS** section.

Weed control may be reduced if application is made when heavy dew, fog, and mist/rain are present; or when weeds are under stress due to drought, cool temperatures, or extended periods of cloudiness.

Applications for LPI Glufosinate 280 on cotton may be made from emergence up to early bloom.

LPI Glufosinate 280 is a foliar-active material with little or no soil-residual activity.

LPI Glufosinate 280 is rainfast 4 hours after application, therefore, rainfall within 4 hours may necessitate retreatment.



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For best result:

- On lambsquarters, Palmer amaranth and velvetleaf control, make applications of LPI Glufosinate 280 between dawn and 2 hours before sunset.
- Warm temperatures, high humidity, and bright sunlight improve the performance of LPI Glufosinate 280.

**Application Rates:**

**Option 1**  
**3 post applications**

Apply 29.0 fluid ounces per acre (0.53 lbs ai/A) per application depending on weed species, size and density per weed chart.

If required a second application of 29.0 fluid ounces per acre (0.53 lbs ai/A) can be applied, followed by a third application of 29.0 fluid ounces per acre (0.53 lbs ai/A).

The sequential applications must be made minimum 10 days and should be made up to 14 days after each other.

The maximum annual rate of LPI Glufosinate 280 on cotton is 87.0 fluid ounces per acre (1.59 lbs ai/A).

Use a minimum spray volume of 15.0 gallons per acre, unless there is a difficult to control situation (such as dense canopy, large weeds or unfavorable growing conditions are present). In difficult to control situations use a minimum spray volume of 20.0 gallons per acre.

**Option 2**  
**2 post applications**

Apply 32 to 43 fluid ounces per acre (0.59 to 0.79 lbs ai/A) per application depending on weed species, size and density per weed chart.

If required a second application of 29.0 fluid ounces per acre (0.53 lbs ai/A) can be applied.

The sequential applications must be made minimum 10 days and should be made up to 14 days after each other.

The maximum annual rate of LPI Glufosinate 280 on cotton is 72.0 fluid ounces per acre (1.32 lbs ai/A).

Use a minimum spray volume of 15.0 gallons per acre, unless there is a difficult to control situation (such as dense canopy, large weeds or unfavorable growing conditions are present). In difficult to control situations use a minimum spray volume of 20.0 gallons per acre.

Use Pattern	1 <sup>st</sup> Application	2 <sup>nd</sup> Application Minimum 10 Days Up to 14 Days After 1 <sup>st</sup> Application	3 <sup>rd</sup> Application Minimum 10 Days Up to 14 Days After 2 <sup>nd</sup> Application	Annual Maximum
<b>Option 1</b>	29.0 fl oz/A (0.53 lbs ai/A)	29.0 fl oz/A (0.53 lbs ai/A)	29.0 fl oz/A (0.53 lbs ai/A)	87.0 fl oz/A (1.59 lbs ai/A)
<b>Option 2</b>	32.0 to 43.0 fl oz/A (0.59 to 0.79 lbs ai/A)	29.0 fl oz/A (0.53 lbs ai/A)	None	72.0 fl oz/A (1.32 lbs ai/A)

**Adjuvants:**

Ammonium sulfate (AMS) may be used at 1.5 to 3.0 pounds per acre. Adjuvant rates are dependent on a variety of factors including tank mix partners, environmental conditions (such as temperature) 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 (such as low relative humidity) or hard water.

The use of an anti-foam agent is recommended.

**Surfactants / Oils:**

The use of additional surfactants or crop oils in tank mixes with LPI Glufosinate 280 may increase the risk of crop response. Please refer to the surfactant label for more detailed information.

**Nozzle Spray Quality:**

Use medium to coarse nozzles.

LPI Glufosinate 280 is a contact herbicide and requires proper nozzles with uniform thorough spray coverage to achieve optimum weed control.

See **SPRAY DRIFT MANAGEMENT** section for more detailed information.

**Application Methods to Cotton:**

Application of LPI Glufosinate 280 to cotton varieties not containing the LibertyLink trait requires the use of hooded spray equipment designed to minimize exposure of the spray to the cotton stand. A hooded sprayer directs the spray onto weeds, while shielding the cotton stand from contact. Use nozzles that provide uniform coverage within the treated area. Keep hoods on these sprayers adjusted to protect desirable vegetation. Extreme care must be exercised to avoid exposure of the desirable vegetation to the spray.

With a hooded sprayer, the spray pattern is completely enclosed on the top and all 4 sides by a hood, thereby shielding the crop from the spray solution. This equipment must be set up and operated in a manner that avoids bouncing or raising the hoods off the ground in any way. The spray hoods must be operated on the ground or skimming across the ground. Tractor speed must be adjusted to avoid bouncing of the spray hoods. Avoid operation on rough or sloping ground where the spray hoods might be raised off the ground. If the hoods are raised, spray particles may escape and come into contact with the cotton, causing damage or destruction of the crop.

Herbicide rates and spray volume instructions are presented as broadcast equivalents and must be reduced in proportion to the area actually treated. Use the following formulas to calculate the correct rate and volume per planted (field) acre:

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

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

**Post-Harvest – Fall Burndown:**

LPI Glufosinate 280 may be applied as a post-harvest burndown treatment to fields (after cotton harvest). Up to 43.0 fluid ounces per acre (0.79 lb ai/A) of LPI Glufosinate 280 may be applied in a single application to control larger weeds growing in the crop at the time of harvest.

If more than 29.0 fluid ounces per acre (0.53 lb ai/A) is used in a single application, the annual total may not exceed 72.0 fluid ounces per acre (1.32 lb ai/A), including all application timings. Refer to the **ROTATIONAL CROP RESTRICTIONS** section of this label for appropriate rotational crop information.

**Tank Mix 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 mixture.

Certain herbicide tank mixes may aid in the performance of LPI Glufosinate 280. LPI Glufosinate 280 may be applied in tank mix combinations with labeled rates of other products provided these other products are labeled for the timing and method of application for the cotton to be treated. The tank mix partner must be used in accordance with the label limitations and precautions.

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No label dosage rates may be exceeded. LPI Glufosinate 280 cannot be mixed with any product containing a label prohibition against such mixing.

**APPLICATION DIRECTIONS FOR USE ON SOYBEANS CONTAINING THE LIBERTYLINK TRAIT**

Apply LPI Glufosinate 280 only to soybeans containing the LibertyLink trait. Uniform, thorough spray coverage is necessary to achieve consistent weed control.

**Application Timing:**

Apply to small and actively growing weeds, targeting less than 3 inch weeds in height. For additional information on weed heights refer to the **WEED CONTROL FOR ROW CROPS** section.

Weed control may be reduced if application is made when heavy dew, fog, and mist/rain are present; or when weeds are under stress due to drought, cool temperatures, or extended periods of cloudiness.

Applications for LPI Glufosinate 280 on soybeans may be made from emergence up to bloom or R1 growth stage.

LPI Glufosinate 280 is a foliar-active material with little or no soil-residual activity.

LPI Glufosinate 280 is rainfast 4 hours after application, therefore, rainfall within 4 hours may necessitate retreatment.

For best result:

- On lambsquarters, Palmer amaranth and velvetleaf control, make applications of LPI Glufosinate 280 between dawn and 2 hours before sunset.
- Warm temperatures, high humidity, and bright sunlight improve the performance of LPI Glufosinate 280.

**Application Rate:**

Apply LPI Glufosinate 280 at 29.0 to 43.0 fluid ounces per acre (0.53 to 0.79 lbs ai/A), depending on weed species, size and density per weed chart.

If a second application is needed, make the second application of 29.0 to 43.0 fluid ounces per acre (0.53 to 0.79 lbs ai/A), can be applied up to a yearly maximum of 87.0 fluid ounces per acre (1.59 lbs ai/A).

The maximum annual rate of LPI Glufosinate 280 on soybeans is 87.0 fluid ounces per acre (1.59 lbs ai/A).

Use a minimum spray volume of 15.0 gallons per acre, unless there is a difficult to control situation (such as dense canopy, large weeds or unfavorable growing conditions are present). In difficult to control situations use a minimum spray volume of 20.0 gallons per acre.

Use Pattern Rate Ranges		
1 <sup>st</sup> Application	2 <sup>nd</sup> Application Minimum of 5 Days After 1 <sup>st</sup> Application	Annual Maximum
29.0 to 43.0 fl oz/A (0.53 to 0.79 lbs ai/A)	29.0 to 43.0 fl oz/A (0.53 to 0.79 lbs ai/A)	87.0 fl oz/A (1.59 lbs ai/A)

**Adjuvants:**

Ammonium sulfate (AMS) may be used at 1.5 to 3.0 pounds per acre. Adjuvant rates are dependent on a variety of factors including tank mix partners, environmental conditions (such as temperature) 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 (such as low relative humidity) or hard water.

The use of an anti-foam agent is recommended.

**Surfactants / Oils:**

The use of additional surfactants or crop oils in tank mixes with LPI Glufosinate 280 may increase the risk of crop response. Please refer to the surfactant label for more detailed information.

**Nozzle Spray Quality:**

Use medium to coarse nozzles.

LPI Glufosinate 280 is a contact herbicide and requires proper nozzles with uniform thorough spray coverage to achieve optimum weed control.

See **SPRAY DRIFT MANAGEMENT** section for more detailed information.

**Restrictions to the Directions For Use on Soybeans Containing the LibertyLink Trait:**

- **DO NOT** apply LPI Glufosinate 280 within 70 days of harvesting soybean seed.
- **DO NOT** apply more than 87.0 fluid ounces per acre (1.59 lbs ai/A) of LPI Glufosinate 280 on soybeans per growing year.
- **DO NOT** apply more than 43.0 fluid ounces per acre (0.79 lbs ai/ A) of LPI Glufosinate 280 in a single application.
- **DO NOT** graze the treated crop or cut for hay.
- **DO NOT** use nitrogen solutions as spray carriers. A silicone-based antifoam agent may be added if needed.
- **DO NOT** apply LPI Glufosinate 280 if soybeans show injury from prior herbicide applications or environmental stress (drought, excessive rainfall, etc.).
- **DO NOT** apply LPI Glufosinate 280 through any type of irrigation system.
- Refer to the **ROTATIONAL CROP RESTRICTIONS** section under the **PRODUCT INFORMATION** heading of this label for the appropriate rotational crop plant back intervals.
- Sequential applications must be at least 5 days apart.

**Soybean Tank Mix Instructions:**

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.

Certain herbicide tank mixes may complement LPI Glufosinate 280. No additional surfactant is needed with any tank mix partner. LPI Glufosinate 280 may be applied in tank mix combinations with labeled rates of other products provided these other products are labeled for the timing and method of application for the soybean to be treated. The tank mix partner must be used in accordance with the label limitations and precautions. No label dosage rates may be exceeded. LPI Glufosinate 280 cannot be mixed with any product containing a label prohibition against such mixing.

**APPLICATION DIRECTIONS FOR CANOLA, CORN, COTTON, AND SOYBEAN SEED PROPAGATION**

LPI Glufosinate 280 may be applied to select out susceptible "segregates", i.e., canola, corn, cotton, and soybean plants that do not contain the LibertyLink trait during seed propagation.

**Canola Containing as LibertyLink Trait:**

LPI Glufosinate 280 may also be used in canola seed propagation as a foliar spray to selectively eliminate canola plants that do not carry a gene that imparts tolerance to glufosinate-ammonium and as such, can be applied to remove susceptible segregates during canola seed propagation. Breeding material not possessing the glufosinate-ammonium tolerance gene will be severely injured or killed if treated with this herbicide. See **APPLICATION DIRECTIONS FOR USE ON CANOLA CONTAINING THE LIBERTYLINK TRAIT** for use rates and application timing.

**Corn Containing the LibertyLink Trait:**

Inbred lines, plants not containing the LibertyLink trait, will be severely injured or killed if treated with this herbicide. A hooded sprayer may be used to protect plants from coming into contact with the herbicide application. For the selection of tolerant corn "segregates," LPI Glufosinate 280 may be applied at 22.0 fluid ounces per acre (0.4 lbs ai/A) plus AMS at 3.0 pounds per acre (17.0 pounds per 100 gallons) when corn is in the V-3 to V-4 stage of growth, i.e., 3 to 4 developed collars. A second treatment of 22.0 fluid ounces per acre plus AMS at 3.0 pounds per acre may be applied when the corn is in the V-6 to V-7 stage of growth or up to 24

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inches tall. Sequential applications must be at least 10 days apart. When temperatures exceed 85 °F, the rate of AMS can be reduced to 1.5 pounds per acre (8.5 pounds per 100 gallons) to reduce potential leaf burn.

**Cotton Containing the LibertyLink Trait:**

LPI Glufosinate 280 may also be used in cotton seed propagation as a foliar spray to selectively eliminate cotton plants that do not carry the LibertyLink trait and as such, can be applied to remove susceptible segregates during cotton seed propagation. Breeding material not containing the LibertyLink trait will be severely injured or killed if treated with this herbicide. See **APPLICATION DIRECTIONS FOR USE ON COTTON CONTAINING THE LIBERTYLINK TRAIT** for use rates and application timing.

**Soybeans Containing the LibertyLink Trait:**

For the selection of tolerant soybean “segregates,” LPI Glufosinate 280 may be applied at up to 29.0 to 43.0 fluid ounces per acre (0.53 to 0.79 lbs ai/A) when soybean is in the third trifoliolate stage. A second treatment of 29.0 to 43.0 fluid ounces per acre (0.53 to 0.79 lbs ai/A) may be applied up to but not including the bloom growth stage of soybean. Sequential applications must be at least 5 days apart.

**APPLICATION DIRECTIONS FOR USE ON LISTED TREE, VINE, AND BERRY CROPS**

Apply this to the tree, vine, and berry crops listed below. Uniform, thorough spray coverage is necessary to achieve consistent weed control.

**REGISTERED CROPS:**

**Bushberries:** blueberry, currant, elderberry, gooseberry, and huckleberry

**Other Berries:** Lingonberry, juneberry, and Salal Citrus: lemon, orange, grapefruit, lime, mandarin, tangerine, tangelo, calamondin, kumquat, pummelo, citron, citrus hybrids, Tangor, and cultivars, varieties and/or hybrids of these Olives

**Pome Fruit:** Apple, pear, crabapple, loquat, mayhaw, quince, azarole, Medlar, Tejocote, cultivars, varieties and/or hybrids of these

**Stone Fruit:** Apricot, cherry, peach, nectarine, plum, capulin, jujube, Sloe, and cultivars, varieties and/or hybrids of these

**Tree Nuts:** almonds, filberts, hickory nuts, macadamia nuts (bush nuts), pecans, pistachios, and walnuts

**Vineyards:** grape varieties (table, wine, and raisins)

**Application Rate and Timing:**

For best results, apply to emerged, young, actively growing weeds. Warm temperatures, high humidity, and bright sunlight improve the performance of LPI Glufosinate 280. 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 at the highest specified label use rate. Stressed conditions also include prior treatments of other contact or systemic herbicides. Do not retreat these weeds with LPI Glufosinate 280 until sufficient regrowth has occurred.

Apply LPI Glufosinate 280 as a directed spray to control undesirable vegetation in tree, vine, and berries listed on this label. Apply as a broadcast, banded, or spot treatment application depending on the situation to control weeds listed under the heading **Weeds Controlled in Tree, Vine and Berry Crops**. Avoid direct spray or drift to desirable vegetation. Regrowth may occur due to the weed stage of growth at application, low use rate, or environmental conditions. Repeat applications of LPI Glufosinate 280 may be necessary to control plants generating from underground parts or seed.

Avoid contact of LPI Glufosinate 280 solution, spray, drift or mist with green bark, stems, or foliage, as injury may occur to trees, vines, and berries. **Only trunks with callused, mature brown bark should be sprayed unless protected from spray contact by nonporous wraps, grow tubes, or waxed containers. Contact of LPI Glufosinate 280 with parts of trees, vines, or berries other than mature brown bark can result in serious damage.**

**Application Methods for Broadcast Applications:**

Apply LPI Glufosinate 280 at the rates listed below for broadcast applications based on weed size and stage of growth.

Weed Size and Stage	Rate of this product
Weeds < 3" in height	48.0 fl oz/A (0.88 lbs ai/A)
Weeds < 6" in height pre-tiller grasses	56.0 fl oz/A (1.02 lbs ai/A)
Weeds > 6" in height and/or grasses that have tillered	56.0 to 82.0 fl oz/A (1.02 to 1.5 lbs ai/A)

**Application Methods for Banded Spray Applications**

Banded applications may be used using the following formula to calculate the amount of herbicide needed for orchard or vineyard strip sprays:

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

**Application Methods for Spot or Directed-Spray Applications**

For spot or directed spray applications: mix LPI Glufosinate 280 at 1.7 fluid ounces of product (0.031 lbs ai) per gallon of water. Apply to undesirable vegetation foliage until wet but prior to runoff. Ensure uniform and complete coverage. Thoroughly clean the sprayer following use. **DO NOT** make spot or directed spray applications to tree or vine trunk as injury may occur.

**Weeds Controlled in Tree, Vine and Berry crops**

**Broadleaf Weeds**

Alkali sida	Fleabane, annual	Morningglory, ivyleaf	Smartweed, Pennsylvania
Ammannia, purple	Goosefoot	Morningglory, pitted	Sowthistle, annual
Arrowhead, California	Gromwell, field	Mullein, turkey	Spurge, prostrate
Buckwheat, wild	Groundcherry, cutleaf	Mustard, wild	Starthistle, yellow
Buffalobur	Groundsel, common	Nettle	Sunflower, common
Burclover, California	Henbit	Nightshade, black	Sunflower, prairie
Carpetweed	Jimsonweed	Nightshade, eastern black	Sunflower, volunteer
Chickweed, common	Knotweed	Nightshade, hairy	Swinecress
Chinese thornapple	Kochia	Pennycress	Thistle, Russian
Cocklebur, common	Lambsquarters, common	Pigweed, redroot	Turnip, wild
Copperleaf, Virginia	Lettuce, miner's	Pineapple weed	Velvetleaf
Cudweed	Lettuce, prickly	Puncturevine	Vervain
Cutleaf evening primrose	London rocket	Purslane, common	Vetch
Dodder	Mallow, common	Radish, wild	Virginia copperleaf
Eclipta	Malva (little mallow)	Ragweed, common	Willowherb panicle
Fiddleneck	Marestail	Ragweed, giant	
Filaree	Mayweed	Redmaids	
Filaree, redstem	Morningglory, entireleaf	Shepherd's-Purse	

**Grass Weeds**

Barnyardgrass	Crabgrass, smooth	Junglerice	Shattercane
Bluegrass, annual	Cupgrass, woolly	Oat, wild	Sprangletop
Brome, ripgut	Foxtail, giant	Panicum, fall	Stinkgrass
Bromegrass, downy	Foxtail, green	Panicum, Texas	Wheat, volunteer
Canarygrass	Foxtail, yellow	Rush, toad**	Windgrass
Chess, soft	Goosegrass	Ryegrass, annual*	Witchgrass
Crabgrass, large	Johnsongrass, seedling	Sandbur, field	

**Biennial and Perennial Weeds**

Aster, white heath	Dallisgrass	Mustard, tansy	<i>Rubus</i> spp.
Bindweed, field	Dandelion	Nutsedge, purple	Spurge, leafy
Bindweed, hedge	Dock, curly	Nutsedge, yellow	Thistle, bull
Bluegrass, Kentucky	dogbank (hemp)	Onion, wild	Thistle, musk
Bromegrass, smooth	Fescue	Orchardgrass	Torpedograss
Bulrush**	Golden rod, gray	Paragrass	Vaseygrass
Burdock	Guineagrass	Plantain	Woodsorrel
Canada thistle	Horsetail	Poison ivy/oak	Yarrow, common
Clover, Alsike	Lovegrass	Quackgrass	
Clover, red	Mugwort	Rocket, yellow	
Clover, white	Mullein, common	Rose, wild	

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\* apply to annual ryegrass prior to 3 inches in height

\*\*indicates suppression

**Restrictions to the Directions For Use on Tree, Vine, and Berry Crops**

- **DO NOT** apply more than 164 fluid ounces of LPI Glufosinate 280 per acre (3.0 lbs ai/A) to berry bushes and stone fruit in a 12-month period. **DO NOT** make more than 2 applications at a maximum rate of 82.0 fluid ounces per acre (1.5 lbs ai/A) per application.
- **DO NOT** apply more than 246 fluid ounces (4.5 lbs ai/A) of LPI Glufosinate 280 per acre to tree nuts, vines, pome fruit, citrus, and olives in any calendar year. **DO NOT** make more than 3 applications at a maximum rate of 82.0 fluid ounces per acre (1.5 lbs ai/A) per application.
- **DO NOT** graze harvest, and/or feed treated orchard cover crops to livestock.
- **DO NOT** apply LPI Glufosinate 280 through any type of irrigation system.
- **DO NOT** apply LPI Glufosinate 280 aerially to tree, berry, or vine crops.
- **DO NOT** apply LPI Glufosinate 280 within 14 days of nut, fruit, berry, or grape harvest.
- Applications to citrus fruits, pome fruits and olives must be a minimum of 14 days apart.
- Applications to stone fruit must be a minimum of 28 days apart:
- **DO NOT** make spot spray applications to suckers, as tree injury may occur.

**Sucker Control with LPI Glufosinate 280**

LPI Glufosinate 280 will reduce or eliminate sucker growth when applied to suckers that are young, green, and uncalled. For sucker control, apply a split application approximately 4 weeks apart at 56.0 fluid ounces of product per acre (1.02 lbs ai/A). Coverage of all sucker foliage is necessary for optimum control. Suckers should not exceed 12 inches in length.

**Tank Mix Partner Instructions**

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.

LPI Glufosinate 280 does not provide residual weed control or control of unexposed plant parts. Certain herbicide tank mixes may aid in the performance of LPI Glufosinate 280 or be added to provide residual herbicide activity. No additional surfactant is needed with any tank mix partner. LPI Glufosinate 280 may be applied in tank mix combinations with labeled rates of other products provided these other products are labeled for the timing and method of application for the crop to be treated. The tank mix partner must be used in accordance with the label limitations and precautions. No label dosage rates may be exceeded. LPI Glufosinate 280 cannot be mixed with any product containing a label prohibition against such mixing.

diuron	napropamide	oryzalin	terbacil
flumioxazin	norfluzon	simazine	

**APPLICATION DIRECTIONS FOR POTATO VINE DESICCATION**

**Application Rates and Timing:**

Apply LPI Glufosinate 280 at the beginning of natural senescence of potato vines. Apply 21.0 fluid ounces per acre (0.38 lbs ai/A). Do not split this application or apply more than 1 application per harvest. Potato varieties with heavy or dense vines may require an application of another desiccation product to complete vine desiccation.

Thorough coverage of the potato vines to be desiccated is essential. Use a sufficient volume of water (20.0 to 100 gallons per acre) to obtain a thorough coverage of the potato vines. Vary the gallons of water per acre and the spray pressure as indicated by the density of the potato vines to assure thorough spray coverage. Increase the spray volume to at least 30.0 gallons of water per acre when the potato vine canopy is dense or under cool and dry conditions. Apply LPI Glufosinate 280 with the spray boom as low as possible to achieve thorough coverage of the potato vines for best control and to minimize drift potential.

**Restrictions to the Directions For Use in Potato Vine Desiccation:**

- **DO NOT** apply more than 21.0 fluid ounces per acre (0.38 lbs ai/A) to potato vines per year.
- **DO NOT** harvest potatoes until 9 days or more after application of LPI Glufosinate 280.
- **DO NOT** apply to potatoes grown for seed.

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- Potatoes, canola, corn, cotton, soybean, and sugar beets may be planted at any time after the application of LPI Glufosinate 280 as a potato vine desiccant.
- **DO NOT** plant treated areas to wheat, barley, buckwheat, millet, oats, rye, sorghum, and triticale until 30 or more days after an application of LPI Glufosinate 280 as a potato vine desiccant.
- **DO NOT** plant treated areas to crops other than those listed in this use precautions section until 120 or more days after an application of LPI Glufosinate 280 as a potato vine desiccant.
- **DO NOT** split this application or apply more than one application per harvest.

### FALLOW FIELDS OR POST HARVEST

LPI Glufosinate 280 may be used as a substitute for tillage to control or suppress weeds in the **WEED CONTROL FOR ROW CROPS** section of this label. Applications may be made in fallow fields, post harvest, prior to planting or emergence of any crop listed on this label.

Apply LPI Glufosinate 280 at 22.0 or 29.0 fluid ounces per acre (0.2 to 0.53 lb ai/A) to fallow fields to control specific weeds. LPI Glufosinate 280 must be applied with ammonium sulfate. Tank mixes with 2,4-D, glyphosate or atrazine are specified with LPI Glufosinate 280 to enhance total weed control. When using LPI Glufosinate 280 in tank mix combinations, follow the precautions and directions of use of the most restrictive label. See **APPLICATION AND MIXING PROCEDURES** section of this label for additional information on how to apply LPI Glufosinate 280. See the **PRODUCT INFORMATION** section of this label for rotational crop restrictions.

### FARMSTEADS, RECREATIONAL, AND PUBLIC AREAS

When applied as directed, LPI Glufosinate 280 controls undesirable plant vegetation in non-crop areas around farmstead building foundations, shelter belts, along fences, airports, commercial plants, storage and lumber yards, educational facilities, fence lines, ditch banks, dry ditches, schools, parking lots, tank farms, pumping stations, parks, nonselective farmstead weed control. Refer to the **APPLICATION DIRECTIONS FOR USE ON LISTED TREE, VINE, AND BERRY CROPS** for appropriate application broadcast and spot spray application rates and lists weeds controlled.

### 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. Storage temperature should not exceed 125 °F. If storage temperature for bulk of LPI Glufosinate 280 is below 32°F, the material **should not be pumped until its temperature exceeds 32 °F. Protect against direct sunlight.**

**PESTICIDE DISPOSAL:** Wastes resulting from the use of LPI Glufosinate 280 may be disposed of on-site or at an approved waste disposal facility.

**CONTAINER HANDLING: Nonrefillable container.** Do not reuse this container to hold materials other than pesticides or dilute pesticides (rinsate). After emptying and cleaning, it may be allowable to temporarily hold rinsate or other pesticide-related materials in the container. Contact your state regulatory agency to determine allowable practices in your state. Once cleaned, some agricultural plastic pesticide containers can be taken to a container collection site or picked up for recycling. To find the nearest site, contact your chemical dealer or manufacturer, or contact The Agricultural Container Recycling Council (ACRC) at [www.acrecycle.org](http://www.acrecycle.org). If not recycled, then puncture and dispose of in a sanitary landfill, or incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke. Triple rinse or pressure rinse container (or equivalent) promptly after emptying.

**For packages up to 5 gallons: Triple rinse as follows:** Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. **Pressure rinse as follows:** Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

**For packages greater than 5 gallons and less than 56 gallons: Triple rinse as follows:** Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 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. **Pressure rinse as follows:** Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after



the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip. **For packages greater than 56 gallons:** To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10% full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times.

**For refillable containers:** Refill this container with LPI Glufosinate 280 only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10% full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times. For final disposal, offer for recycling or reconditioning if appropriate, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

**For help with any spill, leak, fire or exposure involving this material, call day or night CHEMTREC – 1-800-424-9300.**

### **CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY**

**BEFORE BUYING OR USING THIS PRODUCT**, read the entire Directions for Use and the following Conditions of Sale and Limitation of Warranty and Liability. By buying or using this product, the buyer or user accepts the following Conditions of Sale and Limitation of Warranty and Liability, which no employee or agent of LOVELAND PRODUCTS, INC. or the seller is authorized to vary in any way.

Follow the Directions for Use of this product carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Crop or other plant injury, ineffectiveness, or other unintended consequences may result from such risks as weather or crop conditions, mixture with other chemicals not specifically identified in this product's label, or use of this product contrary to the label instructions, all of which are beyond the control of LOVELAND PRODUCTS, INC. and the seller. The buyer or user of this product assumes all such inherent risks.

Subject to the foregoing inherent risks, LOVELAND PRODUCTS, INC. 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 when the product is used in strict accordance with such Directions for Use under normal conditions of use. EXCEPT AS WARRANTED IN THIS LABEL AND TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, THIS PRODUCT IS SOLD "AS IS," AND LOVELAND PRODUCTS, INC. MAKES NO OTHER WARRANTY, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR ELIGIBILITY OF THIS PRODUCT FOR ANY PARTICULAR TRADE USAGE.

IN THE UNLIKELY EVENT THAT BUYER OR USER BELIEVES THAT LOVELAND PRODUCTS, INC. HAS BREACHED A WARRANTY CONTAINED IN THIS LABEL AND TO THE EXTENT REQUIRED BY APPLICABLE LAW, BUYER OR USER MUST SEND WRITTEN NOTICE OF ITS CLAIM TO THE FOLLOWING ADDRESS: LOVELAND PRODUCTS, INC., ATTENTION: LAW DEPARTMENT, P.O. BOX 1286, GREELEY, CO 80632-1286.

TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, THE BUYER'S OR USER'S EXCLUSIVE REMEDY FOR ANY INJURY, LOSS, OR DAMAGE RESULTING FROM THE HANDLING OR USE OF THIS PRODUCT, INCLUDING BUT NOT LIMITED TO CLAIMS OF BREACH OF WARRANTY OR CONTRACT, NEGLIGENCE, STRICT LIABILITY, OR OTHER TORTS, SHALL BE LIMITED TO ONE OF THE FOLLOWING, AT THE ELECTION OF LOVELAND PRODUCTS, INC. OR THE SELLER: DIRECT DAMAGES NOT EXCEEDING THE PURCHASE PRICE OF THE PRODUCT OR REPLACEMENT OF THE PRODUCT. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, LOVELAND PRODUCTS, INC. AND THE SELLER SHALL NOT BE LIABLE TO THE BUYER OR USER OF THIS PRODUCT FOR ANY CONSEQUENTIAL, SPECIAL, OR INDIRECT DAMAGES, OR DAMAGES IN THE NATURE OF A PENALTY.

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