

WILLOWOOD USA

WILLOWOOD GLUFOSINATE 280SL

GROUP	10	HERBICIDE
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A non-selective herbicide for post emergence broadcast use on canola, corn, cotton, and soybean designated as LibertyLink®. Willowood Glufosinate 280SL may be used for weed control in non- LibertyLink cotton when applied with a hooded sprayer in-crop. Willowood Glufosinate 280SL may also be applied as a broadcast burndown application before planting or prior to emergence of any conventional variety of canola, sweet corn*, corn, cotton, soybean or sugar beet. Willowood Glufosinate 280SL may be used for post emergence weed control in listed tree, vine and berry crops. Willowood Glufosinate 280SL may also be applied for potato vine desiccation.

***Not for use in California.**

ACTIVE INGREDIENT:

Glufosinate ammonium* 24.5%**

OTHER INGREDIENTS: 75.5%

TOTAL: 100.0%

*CAS Number 77182-82-2

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

EPA Reg. No. 87290-41

KEEP OUT OF REACH OF CHILDREN WARNING - AVISO

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

FIRST AID

IF IN EYES:	<ul style="list-style-type: none">• Hold eye open and rinse slowly and gently with water for 15-20 minutes.• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.• Call a poison control center or doctor for treatment advice.
IF ON SKIN OR CLOTHING:	<ul style="list-style-type: none">• Take off contaminated clothing.• Rinse skin immediately with plenty of water for 15-20 minutes.• Call a poison control center or doctor for treatment advice.
IF SWALLOWED:	<ul style="list-style-type: none">• Call a poison control center or doctor immediately for treatment advice.• Have person sip a glass of water if able to swallow.• Do not induce vomiting unless told to by a poison control center or doctor.• Do not give anything to an unconscious person.

HOT LINE NUMBER

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. For general information on product use, etc., call the National Pesticides Information Center (NPIC) at 1-800-858-7378. For emergencies, call the poison control center 1-800-222-1222.

NOTE TO PHYSICIAN: If this product is ingested, endotracheal intubation and gastric lavage should be performed as soon as possible followed by charcoal and sodium sulfate administration.



Manufactured For:
Willowood, LLC
385 Interlocken Crescent, Suite 240
Broomfield, CO 80021

Net Contents:
2.5 Gallons

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

Causes substantial but temporary eye injury. Harmful if absorbed through skin. Harmful if swallowed. Do not get in eyes or on clothing. Avoid contact with skin.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves such as barrier laminate, butyl rubber \geq 14 mils, nitrile rubber \geq 14 mils, neoprene rubber \geq 14 mils, polyvinyl chloride (PVC) \geq 14 mils, or Viton[®] \geq 14 mils
- Shoes and socks
- Protective eyewear (goggles, face shield or safety glasses)

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

Mixers/loaders supporting aerial applications must wear a minimum of a NIOSH-approved filtering face piece respirator with any N filter (TC-84A). You can also use other NIOSH approved particulate respirators that offer more protection. For more information, see www.epa.gov/pesticide-respirators.

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 the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

ENGINEERING CONTROL STATEMENT

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240 (d)(4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

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 must 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, this product 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.

PHYSICAL OR CHEMICAL HAZARDS

Do not use with or store near oxidizing agents since hazardous chemical reaction may occur.

DIRECTIONS FOR USE

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

Do not use this product until you have read the entire label. Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application.

For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

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

AGRICULTURAL USE REQUIREMENTS

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

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 12 hours with the exception of sweet corn irrigation activities which has a 4 day 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 \geq 14 mils, nitrile rubber \geq 14 mils, neoprene rubber \geq 14 mils, polyvinyl chloride (PVC) \geq 14 mils, or Viton[®] \geq 14 mils
- Chemical-resistant footwear plus socks
- Protective eyewear (goggles, face shield or safety glasses)

IMPORTANT CROP SAFETY INFORMATION READ BEFORE USING THIS PRODUCT

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

*Not for use in California.

Post emergence row crop applications of Willowood Glufosinate 280SL may be made only to LibertyLink crops.

The basis of selectivity of Willowood Glufosinate 280SL in glufosinate-resistant crops is the presence of a gene tolerant to glufosinate. Crops not containing this gene will not be tolerant to Willowood Glufosinate 280SL and severe crop injury and/or death may occur. Do not allow spray to contact foliage or green tissue of desirable vegetation other than the crops tolerant to the active ingredient in this product.

Willowood Glufosinate 280SL may be applied to conventional cotton not tolerant to the active ingredient in Willowood Glufosinate 280SL using a hooded sprayer.

Applications to trees, vines, and berries should avoid contact of Willowood Glufosinate 280SL 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 dark brown bark should be sprayed unless protected from spray contact by nonporous wraps, grow tubes or waxed containers. Contact of Willowood Glufosinate 280SL with parts of trees, berries or vines other than mature brown bark can result in serious damage.

PRODUCT INFORMATION

Willowood Glufosinate 280SL 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 canola, corn, cotton, and soybean designated as LibertyLink and in trees, vines, and berries. Willowood Glufosinate 280SL may be applied for potato vine desiccation. Willowood Glufosinate 280SL may also be applied as a broadcast burndown application before planting or prior to emergence of any conventional variety of canola, sweet corn*, corn, cotton, soybean, or sugar beet.

*Not for use in California.

Willowood Glufosinate 280SL is only foliar active with little or no activity in soil. Weeds that emerge after application will not be controlled. Apply Willowood Glufosinate 280SL to actively growing weeds as described in the Weed Control Recommendations 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.

- Willowood Glufosinate 280SL is rainfast four (4) hours after application to most weed species, therefore, rainfall within four (4) hours may necessitate retreatment or may result in reduced weed control.
- Application should be made between dawn and 2 hours before sunset to avoid the possibility of reduced lambsquarters and velvetleaf control.
- Consult your local Cooperative Extension Service or Willowood, LLC representative for guidelines on the optimum application timing for Willowood Glufosinate 280SL 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 Willowood Glufosinate 280SL 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, Sweet Corn, Corn, Cotton, Soybeans, 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 Willowood Glufosinate 280SL applications to potatoes.

Integrated Weed Management

The active ingredient in Willowood Glufosinate 280SL is glufosinate ammonium, which is a glutamine synthetase inhibitor (Group 10). 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 a 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 two applications of a single herbicide mode of action to the same field in a two 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.

Contact your local agronomic advisor for more specific information on integrated weed management for your area.

WEED CONTROL FOR ROW CROPS

Rates in ounces 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 that requires the highest rate.

BROADLEAF WEED CONTROL

Weed Species	Maximum Weed Height or Diameter (Inches)		Weed Species	Maximum Weed Height or Diameter (Inches)	
	22 fl. oz/A	29 fl. oz/A ^{ab}		22 fl. oz/A	29 fl. oz/A ^{ab}
Amaranth, Palmer ²	NR	4	Morningglory, smallflower ²	4	6
Anoda, spurred	3	5	Morningglory, tall ²	6	8
Beggarweed, Florida	4	5	Mustard, wild	4	6
Black, medic	5	7	Nightshade, black	4	6
Blueweed, Texas	5	7	Nightshade, eastern black	6	8
Buckwheat, wild	6	7	Nightshade, hairy	6	8
Buffalobur	6	7	Pennycress (stinkweed)	4	6
Burcucumber	6	10	Pigweed, redroot ²	3	4
Catchweed bedstraw (cleavers)	2	4	Pigweed, prostrate ²	3	4
Carpetweed	4	6	Pigweed, spiny ²	3	4
Chickweed, common	6	8	Pigweed, smooth ²	3	4
Cocklebur, common	6	14	Pigweed, tumble ²	3	4
Copperleaf, Hophornbeam	4	6	Puncturevine	4	6
Cotton, volunteer ¹	6	8	Purslane, common	2	4
Croton, tropic	3	5	Pusley, Florida	S	3
Croton, woolly	2	4	Ragweed, common	6	10
Eclipta	4	6	Ragweed, giant	6	12
Devil's claw	2	4	Senna, coffee	4	6
Fleabane, annual	6	8	Sesbania, hemp	6	8
Galinsoga, hairy	6	8	Shepherd's Purse	6	8
Galinsoga, small flower	6	7	Sicklepod (java bean)	4	6
Groundcherry, cutleaf	4	5	Sida, prickly	4	5
Geranium, cutleaf	4	6	Smartweed, Pennsylvania	6	14
Hempnettle	4	6	Smellmelon	4	6
Horsenettle, Carolina ³	2	4	Sowthistle, annual	6	8
Jimsonweed	6	10	Soybeans, volunteer ¹	6	8
Knotweed	3	5	Spurge, prostrate	2	4
Kochia ²	4	6	Spurge, spotted	2	4
Ladysthumb	6	14	Starbur, bristly	4	6
Lambsquarters, common ²	4	6	Sunflower, common	6	14
Mallow, common	4	6	Sunflower, prairie	3	5
Mallow, Venice	6	8	Sunflower, volunteer	6	10
Marestail	S	6-12	Thistle, Russian ²	S	6-12
Marshelder, annual	4	6	Velvetleaf ²	3	4
Morningglory, entireleaf ²	6	8	Waterhemp, common ²	NR	5
Morningglory, ivyleaf ²	6	8	Waterhemp, tall ²	NR	5
Morningglory, pitted ²	6	8			
Morningglory, sharppod ²	2	4			

^aIn cotton, Willowood Glufosinate 280SL may be applied at 29 fl. oz/A, three times per acre per year.

^bDo not apply more than 22 fl. oz/A of Willowood Glufosinate 280SL post emergence in a single application to canola and corn.

S Indicates suppression

¹ Volunteer LibertyLink crops from the previous season will not be controlled.

² For applications to corn, tank mixing with atrazine may enhance weed control of this species.

³ May require sequential applications for control.

NR Not recommended.

GRASS WEED CONTROL

Weed Species	Maximum Weed Height or Diameter (inches)		Weed Species	Maximum Weed Height or Diameter (inches)	
	22 fl. oz./A	29 fl. oz./A ^{ab}		22 fl. oz./A	29 fl. oz./A ^{ab}
Barley, volunteer ³	3	4	Millet, wild proso	6	7
Barnyardgrass	3	5	Millet, proso volunteer	6	7
Bluegrass, annual	3	5	Oat, wild ²	3	4
Corn, volunteer ¹	10	12	Panicum, fall	3	5
Crabgrass, large ²	3	5	Panicum, Texas	4	6
Crabgrass, smooth ²	3	5	Rice, red	4	6
Cupgrass, woolly	6	12	Rice, volunteer ¹	4	6
Foxtail, bristly	6	8	Sandbur, field ²	S	2
Foxtail, giant	6	12	Shattercane	6	8
Foxtail, green	6	12	Signalgrass, broadleaf	3	5
Foxtail, robust purple	6	8	Sprangletop	4	6
Foxtail, yellow ²	3	4	Sorghum, volunteer	6	8
Goosegrass ³	2	3	Stinkgrass	4	6
Johnsongrass, seedling	3	5	Wheat, volunteer ²	4	5
Junglerice	3	5	Witchgrass	4	6

^aIn cotton, Willowood Glufosinate 280SL may be applied at 29 fl. oz./A, three times per acre per year.

^bDo not apply more than 22 fl. oz./A of Willowood Glufosinate 280SL post emergence in a single application to canola and corn.

S Indicates suppression

¹Volunteer LibertyLink crops from the previous season will not be controlled. A timely cultivation, 7 to 10 days after an application and/or retreatment for 10-21 days after the first application is recommended for controlling dense clumps of volunteer corn.

²For best control of yellow foxtail, field sandbur, crabgrass, and wild oats, treat prior to initiation.

³A sequential application may be necessary for control.

Biennial and Perennial Weeds**

For control of the biennial and perennial weeds listed below, tank mix partners or sequential applications of Willowood Glufosinate 280SL are specified (22 fl. oz./A followed by 22 fl. oz./A).

Alfalfa	Clover, Alsike	Nutsedge, purple*
Artichoke, Jerusalem	Clover, red	Nutsedge, yellow*
Bermudagrass	Dandelion	Orchardgrass
Bindweed, field	Dock, smooth	Poinsettia, wild
Bindweed, hedge	Dogbane, hemp*	Pokeweed
Bluegrass, Kentucky	Goldenrod, gray*	Quackgrass*
Blueweed, Texas	Johnsongrass, rhizome	Sowthistle, perennial
Bromegrass, smooth	Milkweed, common*	Thistle, bull
Burdock	Milkweed, honeyvine*	Thistle, Canada
Bursage, woollyleaf	Muhly, wirestem	Timothy*
Chickweed, Mouse ear	Nightshade, silverleaf	Wormwood, biennial

*Suppression Only

**See the Application Directions for Use on Cotton section of this label for additional use rates.

APPLICATION AND MIXING PROCEDURES

Do not use flood jet nozzles, controlled droplet application equipment, or air assisted spray equipment. Uniform thorough spray coverage is important to achieve consistent weed control.

Ground Application

Refer to the *Rate Tables* for proper application rates. Do not apply when winds are gusty, or when conditions will favor movement of spray particles off the desired spray target. To avoid drift and ensure consistent weed control, apply Willowood Glufosinate 280SL with the spray boom as low as possible while maintaining a uniform spray pattern. Willowood Glufosinate 280SL should be applied broadcast in a minimum of 10 gallons of water per acre using a minimum spray pressure of 40 psi and a maximum ground speed of 10 mph. The use of 80 degree or 110 degree flat fan nozzles is highly recommended for optimum spray coverage and canopy penetration. Application of the spray at a 45 degree angle forward will result in better

spray coverage. **Under dense weed/crop canopies a broadcast rate of 15-20 gallons of water per acre should be used so that thorough spray coverage will be obtained.** DO NOT use raindrop nozzles. Boom height should be based on nozzle manufacturer recommendations. See the Spray Drift Management section of this label for additional information on proper application of Willowood Glufosinate 280SL.

Aerial Application

Poor coverage will result in reduced weed control. For optimal weed control, apply Willowood Glufosinate 280SL in a minimum of 10 gallons per acre. Apply Willowood Glufosinate 280SL using nozzles and pressures that generate MEDIUM (about 300 to 400 microns) spray droplets category as reported by the nozzle manufacturer and in accordance to ASABE S 572 based upon the selected air speed. Do not use nozzles and pressures that result in COARSE sprays. FINE sprays must also be avoided to minimize spray drift risk. See the Spray Drift Management section of this label for additional information on proper application of Willowood Glufosinate 280SL.

COMPATIBILITY TESTING

If Willowood Glufosinate 280SL 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 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 quart jar.
2. For each pound of dry tank mix partner to be applied per acre, add 1.5 teaspoons to the jar.
3. For each 16 fl. oz. of a liquid tank mix partner to be applied per acre, add 0.5 teaspoon to the jar.
4. For each 16 fl. oz. of Willowood Glufosinate 280SL 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 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

Willowood Glufosinate 280SL 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. Willowood Glufosinate 280SL cannot be mixed with any product containing a label prohibition against such mixing. Refer to the specific crop section for rates and restrictions. *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.*

Willowood Glufosinate 280SL must be applied with properly calibrated and clean equipment. Willowood Glufosinate 280SL is formulated to mix readily in water. Prior to adding Willowood Glufosinate 280SL 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).

Mix Willowood Glufosinate 280SL with water to make a finished spray solution as follows:

1. Fill the spray tank half full with water.
2. Start agitation.
3. 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.
4. Add the appropriate amount of ammonium sulfate (AMS) to the spray tank.
5. If mixing with a liquid tank mix partner, add the liquid mix partner next.
6. Complete filling the spray tank with water.
7. Add the proper amount of Willowood Glufosinate 280SL and continue agitation.
8. 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 specified 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 re-suspend 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 Willowood Glufosinate 280SL, thoroughly clean bulk storage tank, refillable tank, nurse tanks, spray tank, lines, and filter, particularly if a herbicide with the potential to injure crops was previously used. Equipment should be thoroughly rinsed using a commercial tank cleaner.

After using Willowood Glufosinate 280SL, triple rinse the spray equipment and clean with a commercial tank cleaner before using for crops not labeled as 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 MANAGEMENT

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 upwind side, immediately prior to application.

Sensitive Areas

The pesticide must 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.

Aerial Drift Management

The following drift management requirements must be followed to avoid off target drift movement from aerial applications to agricultural field crops:

1. The distance of the outer most nozzles on the boom must not exceed $\frac{3}{4}$ the length of the wingspan or rotor.
2. Nozzles must always point backward parallel with the air stream and never be pointed downwards more than 45 degrees.

Where states have more stringent regulations, they need to be observed. The applicator needs to be familiar with and take into account the information covered in the Aerial Drift Reduction.

AERIAL DRIFT REDUCTION

Information on 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. 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 below). AVOIDING SPRAY DRIFT AT THE APPLICATION SITE IS THE RESPONSIBILITY OF THE APPLICATOR.

Controlling Droplet Size

- **Volume** – Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets.
- **Pressure** – Do not exceed the nozzle manufacturer's recommended pressures. For many nozzle types, lower pressure produces larger droplets. When higher flow rates are needed, use higher flow rate nozzles instead of increasing pressure.
- **Number of nozzles** – Use the minimum number of nozzles that provide uniform coverage.
- **Nozzle Orientation** – Orienting nozzles so that the spray is released parallel to the airstream produces larger droplets than other orientations and is the recommended practice. Significant deflection from horizontal will reduce droplet size and increase drift potential.
- **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. Solid stream nozzles oriented straight back produce the largest droplets and the lowest drift.
- **Boom length** – For some use patterns, reducing the effective boom length to $\frac{3}{4}$ of the wingspan or rotor length may further reduce drift without reducing swath width.
- **Application Height** – Applications should not be made at a height greater than 10 feet above the top of the largest plants unless a greater height is required for aircraft safety. Making applications at the lowest height that is safe reduces exposure of droplets to evaporation and wind.

Swath Adjustment

When applications are made with a crosswind, the swath will be displaced downward. Therefore, on the up and downwind

edges of the field, the applicator must compensate for this displacement by adjusting the path of the aircraft upwind. Swath adjustment distance should increase, with increasing drift potential (higher wind, smaller drops, etc.).

Wind

Drift potential is lowest between wind speeds of 2-10 mph. However, many factors, including droplet size and equipment type determine drift potential at any given speed. Applications need to be avoided below 2 miles per hour due to variable wind direction and high inversion potential. 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 low relative humidity, set up equipment to produce larger droplets to compensate for evaporation. Droplet evaporation is most severe when conditions are both hot and dry. Avoid spraying during conditions of low humidity and/or high temperatures.

Temperature Inversions

Do not make aerial or ground applications into areas of temperature inversions. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions due to the light variable winds common during inversions. Temperature inversions are characterized by increasing temperatures 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.

APPLICATION DIRECTIONS FOR BURNDOWN USE

Willowood Glufosinate 280SL may be applied as a burndown treatment prior to planting or prior to emergence of any conventional variety of canola, corn, cotton, soybean, or sugar beet. Apply a minimum of 29 fl. oz./A of Willowood Glufosinate 280SL for burndown of existing weeds just prior to planting or prior to emergence of canola, corn, cotton, soybean, or sugar beets. For best results, apply to emerged, young, actively growing weeds. Warm temperatures, high humidity, and bright sunlight improve the performance of Willowood Glufosinate 280SL. Weed control may be reduced when applications are made to weeds under stress due to drought or cool temperatures.

- In cotton, if environmental conditions prevent timely applications, a single application may be made of up to 43 fl. oz./A of Willowood Glufosinate 280SL (0.79 lb. active ingredient/A).
Restriction: If more than 29 fl. oz./A of this product (0.53 lb. active ingredient/A) are used in any single application, the yearly total may not exceed 72 fl. oz./A of this product (1.32 lbs. active ingredient/A), including all application timings.
- In soybean, if environmental conditions prevent timely applications, a single application may be made of up to 36 fl. oz./A of Willowood Glufosinate 280SL (0.66 lb. active ingredient/A). If 29-36 fl. oz./A of this product (0.53 – 0.66 lb. active ingredient/A) are used in a single burndown application, one additional in season application may be made at up to 29 fl. oz./A of this product (0.53 lb. active ingredient/A).
Restriction: The yearly total may not exceed 65 fl. oz./A of this product (1.19 lbs. active ingredient/A), including all application timings.
- In canola, corn, and sugar beets, if environmental conditions prevent timely applications, a single application may be made of up to 36 fl. oz./A of Willowood Glufosinate 280SL (0.66 lb. active ingredient/A).
Restriction: No additional applications of Willowood Glufosinate 280SL may be made post-emergence to the crop during the growing season.

	Burndown	In Season Applications (LibertyLink only)	Yearly Max
Cotton Use Pattern 1	29 fl. oz./A	2 applications at 22 – 29 fl. oz./A*	87 fl. oz./A
Cotton Use Pattern 2	30 – 43 fl. oz./A	1 application at 22 – 29 fl. oz./A*	72 fl. oz./A
Soybean Use Pattern	29 – 36 fl. oz./A	1 application at 22 – 29 fl. oz./A**	65 fl. oz./A
Canola, Corn, Sugar beets	29 – 36 fl. oz./A	None	36 fl. oz./A

*Cotton labeled as LibertyLink OR with hooded sprayer for non LibertyLink varieties (see Cotton use directions)

**Soybeans labeled as LibertyLink only (see Soybean use directions)

APPLICATION DIRECTIONS FOR USE ON CANOLA

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

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 Willowood Glufosinate 280SL. Weed control may be reduced when applications are made to weeds under stress due to drought or cool temperatures. For optimal yield, early season weed removal is important.

Applications of Willowood Glufosinate 280SL on canola may be made from the cotyledon stage up to the early bolting 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.

Apply Willowood Glufosinate 280SL at 22 fl. oz./A per application. A second application of Willowood Glufosinate 280SL may be needed to control weeds that have not yet emerged at the time of application.

RESTRICTIONS TO THE DIRECTIONS FOR USE ON CANOLA

- **DO NOT** use on canola 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 two applications of Willowood Glufosinate 280SL per year. Sequential applications need to be at least 10 days apart.
- **DO NOT** apply Willowood Glufosinate 280SL within 65 days of harvesting canola.
- **DO NOT** apply more than 44 fl. oz. of Willowood Glufosinate 280SL (0.80 lb. active ingredient) per acre per year.
- If Willowood Glufosinate 280SL was used in a burndown application, no post emergence applications may be applied to the crop.
- **DO NOT** graze the treated crop or cut for hay.
- **DO NOT** apply Willowood Glufosinate 280SL 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.
- Refer to the "**Rotational Crop Restrictions**" section under the "**Information**" heading of this label for the appropriate rotational crop plant back intervals.

SPRAY ADDITIVES

Willowood Glufosinate 280SL must be applied with ammonium sulfate (AMS). Use only fine feed grade or spray grade AMS at 3 pounds per acre. Anti-foams or drift control agents may be added if needed. Use of additional surfactants or crop oils may increase risk of crop response.

CANOLA TANK MIX INSTRUCTIONS

Willowood Glufosinate 280SL at 22 fl. oz./A plus AMS may be used in tank mix combination with certain herbicides for improved control of larger than labeled grasses. Willowood Glufosinate 280SL 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 canola 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. Willowood Glufosinate 280SL cannot be mixed with any product containing a label prohibition against such mixing. The AMS rate may be reduced to 1.5 lbs./A when Willowood Glufosinate 280SL is tank mixed with a reduced rate of one of the grass herbicides specified below.

TANK MIX PARTNERS FOR WILLOWOOD GLUFOSINATE 280SL ON INVIGOR LIBERTYLINK CANOLA

Tank Mix Partner	Rate (fl. oz./A)
Assure® II	Refer to Assure II label for use rates.
Poast®	Refer to Poast label for use rates.
Select® 2EC	Refer to Select 2EC label for use rates.
Select Max™	Refer to Select Max label for use rates.

APPLICATION RATE AND TIMING FOR CANOLA FOR SEED PROPAGATION

(Not for use in California)

Up to three applications of Willowood Glufosinate 280SL at up to 22 fl. oz./A per application may be made to canola for 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, eight or more leaves and beginning of stem elongation, no internodes).

RESTRICTIONS TO THE DIRECTIONS FOR CANOLA FOR SEED PROPAGATION

- DO NOT apply more than three applications of Willowood Glufosinate 280SL at up to 22 fl. oz. (0.40 lb. active ingredient) per application per acre per year.
- DO NOT apply more than 66 fl. oz. of Willowood Glufosinate 280SL (1.21 lbs. active ingredient) per acre per year.
- DO NOT apply Willowood Glufosinate 280SL 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 Willowood Glufosinate 280SL 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 (Not for use in California)

Apply Willowood Glufosinate 280SL only to LibertyLink corn.

APPLICATION TIMING FOR SWEET CORN

Applications for Willowood Glufosinate 280SL on sweet corn may be made from emergence until sweet corn is 24" tall or in the V-7 stage of growth (i.e., 7 developed collars), whichever comes first. Apply at a rate of 20 fl. oz./A. Willowood Glufosinate 280SL must be applied with ammonium sulfate (AMS) for use on sweet corn. Two applications of Willowood Glufosinate 280SL can be made to sweet corn in a year.

RESTRICTIONS TO THE DIRECTIONS FOR USE ON SWEET CORN

- **DO NOT** apply Willowood Glufosinate 280SL within 50 days of harvesting sweet corn ears and within 55 days of harvesting stover.
- **DO NOT** apply more than 40 fl. oz. (0.73 lb. active ingredient) of Willowood Glufosinate 280SL on sweet corn per acre per year.
- **DO NOT** apply more than two applications of Willowood Glufosinate 280SL to the sweet corn crop. Sequential applications need to be at least 10 days apart.
- If Willowood Glufosinate 280SL was used in a burndown application, no post-emergence applications may be made to the crop.
- **DO NOT** use nitrogen solutions as spray carriers. A silicone-based antifoam agent may be added if needed.
- **DO NOT** apply Willowood Glufosinate 280SL if corn shows injury from prior herbicide applications or environmental stress (drought, excessive rainfall, etc.)
- **DO NOT** apply this product through any type of irrigation system.

Refer to the "**Rotational Crop Restrictions**" section under the "**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.

Tank Mix Instructions for use on Sweet Corn

Willowood Glufosinate 280SL may be tank mixed with Laudis® Herbicide, Callisto®, Atrazine, or Permit®. When using Willowood Glufosinate 280SL in tank mix combinations, carefully follow the "Directions for Use" labeling of the selected partner.

APPLICATION DIRECTIONS FOR USE ON FIELD CORN AND SILAGE CORN

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

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 Willowood Glufosinate 280SL. Weed control may be reduced when applications are made to weeds under stress due to drought or cool temperatures. For optimal yield, early season weed removal is important.

Applications of Willowood Glufosinate 280SL on corn may be made with over the top broadcast or drop nozzles from emergence until corn is 24 inches tall or in the V-7 stage of growth (i.e., 7 developed collars), whichever comes first. For corn 24 inches to 36 inches tall only apply Willowood Glufosinate 280SL using ground application and drop nozzles and avoid spraying into the whorl or leaf axils of the corn stalks. Applications of Willowood Glufosinate 280SL following the use of soil applied insecticides will not injure corn.

Apply Willowood Glufosinate 280SL at 22 fl. oz./A per application. A second application of Willowood Glufosinate 280SL or a tank mix application with a residual herbicide will be needed to control weeds that have not yet emerged at the time of application.

RESTRICTIONS TO THE DIRECTIONS FOR USE ON FIELD CORN AND SILAGE CORN

- **DO NOT** apply Willowood Glufosinate 280SL within 60 days of harvesting corn forage and within 70 days of harvesting corn grain and corn fodder.
- **DO NOT** apply more than two applications of Willowood Glufosinate 280SL to the corn crop per year. Sequential applications need to be at least 10 days apart.
- **DO NOT** apply more than 44 fl. oz. (0.80 lb. active ingredient) of Willowood Glufosinate 280SL on corn per acre per year.
- If Willowood Glufosinate 280SL was used in a burndown application, no post-emergence applications may be applied to the crop.
- **DO NOT** use nitrogen solutions as spray carriers. A silicone-based antifoam agent may be added if needed.
- **DO NOT** apply Willowood Glufosinate 280SL if corn shows injury from prior herbicide applications or environmental stress (drought, excessive rainfall, etc.)
- **DO NOT** apply this product through any type of irrigation system.
- Refer to the **“Rotational Crop Restrictions”** section under the **“Information”** heading of this label for the appropriate rotational crop plant back intervals.

SPRAY ADDITIVES

For corn and sweet corn, Willowood Glufosinate 280SL must be applied with ammonium sulfate (AMS). It is recommended to use only fine feed grade or spray grade AMS at 3 lbs. per acre (17 lbs./100 gallons). When temperatures exceed 85° F, the rate of AMS can be reduced to 1.5 lbs. per acre (8.5 lbs./100 gallons) to reduce potential leaf burn.

Use of additional surfactants or crop oils may increase risk of crop response.

CORN TANK MIX INSTRUCTIONS

Certain herbicide tank mixes may aid in the performance of Willowood Glufosinate 280SL. No additional surfactant is needed with any tank mix partner. Willowood Glufosinate 280SL 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 corn 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. Willowood Glufosinate 280SL cannot be mixed with any product containing a label prohibition against such mixing.

TANK MIX PARTNERS FOR WILLOWOOD GLUFOSINATE 280SL ON CORN LABELED AS LIBERTY LINK

2,4-D	Halex GT	Pendimethalin ¹
acetochlor	Hornet® WDG	Permit®
Aim™ ²	Impact®	Python® WDG
Atrazine	Laudis®	s metolachlor ²
Calisto™	Lexar® ²	Spirit®
Carmix® ²	Lumax® ²	Status®
Capreno®	Metolachlor ²	Yukon®
Distinct™	nicosulfuron	Zemax
Guardsman Max®	NorthStar™	

¹ Tank mixing with pendimethalin may result in reduced control of barnyardgrass, fall panicum, field sandbur, yellow foxtail, and volunteer corn.

² It is advised that these products are tank mixed at half the use rate with Willowood Glufosinate 280SL to reduce risk of crop response.

CORN INSECTICIDE TANK MIX PARTNERS FOR WILLOWOOD GLUFOSINATE 280SL

To provide weed and insect control in corn, Willowood Glufosinate 280SL may be mixed with the following insecticides:

Ambush® Insecticide	Tombstone™ Helios®	Pounce® 3.2EC Insecticide
Asana® XL Insecticide	Lorsban® 4E Insecticide	Warrior™ Insecticide
Baythroid® XL Insecticide	Tombstone™	

APPLICATION DIRECTIONS FOR USE ON COTTON

Uniform thorough spray coverage is necessary to achieve consistent weed control. Willowood Glufosinate 280SL may be applied as a broadcast, over-the-top, post-emergence spray or as a directed spray only to LibertyLink cotton. This product may be applied post emergence to non-LibertyLink cotton by using equipment designed to minimize contact of the spray with the cotton foliage. See the Application Methods on Non-LibertyLink Cotton section for selection of shielding equipment. Severe injury or death may result if the Willowood Glufosinate 280SL contacts the foliage or stems of cotton NOT labeled as LibertyLink.

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 Willowood Glufosinate 280SL. Weed control may be reduced when applications are made to weeds under stress due to drought or cool temperatures. For optimum yield, early season weed removal is important.

Apply Willowood Glufosinate 280SL to cotton from emergence up to the early bloom stage at 22 to 29 fl. oz./A. Should environmental conditions prevent a timely herbicide application, a single application of up to 43 fl. oz./A of Willowood Glufosinate 280SL may be made to cotton. If more than 29 fl. oz./A are used in any single application, the yearly total may not exceed 72 fl. oz./A, including all application timings. See Restrictions to the Directions for use on Cotton below for additional information.

Refer to the Weed Control Table for Row Crops section of this label for selection of the proper rate dependent upon weed species present and size. In weed populations with mixed species, select the highest rate required to control all the species. Volunteer LibertyLink crop plants (corn, cotton, soybeans, sugar beets) from the previous season will not be controlled by applications of Willowood Glufosinate 280SL. A repeat application of Willowood Glufosinate 280SL or tank mixes with a residual herbicide will be needed to control weeds that have not emerged at the time of application. See the Tank Mix Instructions for Use on Cotton to select suitable tank mix partners.

Use Pattern	1 st Application	2 nd Application	3 rd Application	Yearly Maximum
Option 1	22-29 fl. oz./A	22-29 fl. oz./A	22-29 fl. oz./A	87 fl. oz./A
Option 2	30-43 fl. oz./A	22-29 fl. oz./A	None	72 fl. oz./A

RESTRICTIONS TO THE DIRECTIONS FOR USE ON COTTON

- **DO NOT** apply Willowood Glufosinate 280SL to cotton in Florida - South of Tampa (Florida Route 60), or in Hawaii (except for test plots or breeding nurseries).
- **DO NOT** apply Willowood Glufosinate 280SL within 70 days prior to cotton harvest.
- Up to three applications of Willowood Glufosinate 280SL may be made to cotton per year at a maximum application rate of 29 fl. oz./A (0.53 lb. active ingredient/A). **DO NOT** apply more than 87 fl. oz. (1.59 lbs. active ingredient) (including all application timings) to cotton per acre per year under this application scenario. Sequential applications need to be at least 10 days apart.
- If environmental conditions prevent timely applications resulting in large weeds or heavy infestations, a single application of Willowood Glufosinate 280SL at up to 43 fl. oz./A (0.79 lb. active ingredient/A) may be made to cotton. **DO NOT** apply more than 43 fl. oz. of Willowood Glufosinate 280SL (0.79 lb. active ingredient) in a single application under this use scenario. If a single application greater than 29 fl. oz. (0.53 lb. active ingredient) is made, a subsequent application not to exceed 29 fl. oz. (0.53 lb. active ingredient) may be made to cotton. The yearly total use rate under this scenario may not exceed 72 fl. oz. of Willowood Glufosinate 280SL (1.32 lbs. active ingredient). Sequential applications need to be made at least 10 days apart.
- **DO NOT** apply this product through any type of irrigation system.
- Refer to the “**Rotational Crop Restrictions**” section under the “**Information**” heading of this label for the appropriate rotational crop plant back intervals.

APPLICATION METHODS TO COTTON LABELED AS LIBERTYLINK

Refer to the Weed Control Table for Row Crops to select the proper application rate based upon the weeds present and their size. Uniform and thorough spray coverage is required to achieve consistent weed control. For ground application, apply Willowood Glufosinate 280SL to LibertyLink cotton as an over-the-top foliar spray directed to the lower one-third of the cotton stand.

APPLICATION METHODS TO NON-LIBERTYLINK COTTON

Application of Willowood Glufosinate 280SL to cotton varieties not labeled as LibertyLink 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.

Band width in inches	X	Broadcast RATE per acre	=	Amount of banded product needed per acre
Row width in inches				

Band width in inches	X	Broadcast spray VOLUME per acre	=	Banded spray volume needed per acre
Row width in inches				

POST HARVEST

Willowood Glufosinate 280SL may be applied as a post-harvest burndown treatment to fields (after cotton harvest). Up to 43 fl. oz./A of Willowood Glufosinate 280SL may be applied in a single application to control larger weeds growing in the crop at the time of harvest.

If more than 29 fl. oz./A is used in a single application, the yearly total may not exceed 72 fl. oz./A, including all application timings. Refer to the “Rotational Crop Restrictions” section of this label for appropriate rotational crop information.

COTTON TANK MIX INSTRUCTIONS

Certain tank mixes may aid in the performance of Willowood Glufosinate 280SL. No additional surfactant is needed with any tank mix partner. Willowood Glufosinate 280SL may be applied in tank mix combination 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. Willowood Glufosinate 280SL cannot be mixed with any product containing a label prohibition against such mixing.

LibertyLink Cotton- For cotton tolerant to Willowood Glufosinate 280SL, Dual Magnum® or Staple® Herbicide may be tank mixed with Willowood Glufosinate 280SL and applied over the top post-emergence to enhance weed control and/or provide residual control.

All Cotton Types – The following herbicides may be tank mixed with Willowood Glufosinate 280SL for hooded spray application to enhance weed control and/or provide residual weed control.

POSTEMERGENCE OVER THE TOP TANK MIX PARTNERS FOR WILLOWOOD GLUFOSINATE 280SL ON LIBERTYLINK COTTON

Assure II	metolachlor	clethodim
Poast Plus	Fusilade DX	Select Max
Fusion	Staple	

APPLICATION DIRECTIONS FOR USE ON SOYBEANS

Apply Willowood Glufosinate 280SL only to soybean designated as LibertyLink. Uniform, thorough spray coverage is necessary to achieve consistent weed control.

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 Willowood Glufosinate 280SL. Weed control may be reduced when applications are made to weeds under stress due to drought or cool temperatures. Adding ammonium sulfate with Willowood Glufosinate 280SL may improve weed control if weeds are under stress. For optimal yield, early season weed removal is important.

Applications of Willowood Glufosinate 280SL on soybeans may be made from emergence up to but not including the bloom growth stage.

Apply Willowood Glufosinate 280SL to LibertyLink soybeans from emergence up to but not including the bloom growth stage at 22 to 29 fl. oz./A. See weed chart to determine rate. Should environmental conditions prevent a timely herbicide application, a single application of up to 36 fl. oz./A of Willowood Glufosinate 280SL may be made to soybeans followed by one additional application at maximum of 29 fl. oz./A with a yearly maximum of 65 fl. oz./A. Willowood Glufosinate 280SL may be applied alone or in a tank mix application with a residual herbicide to control weeds that have not yet emerged at the time of application.

Although timely post applications of Willowood Glufosinate 280SL can provide complete weed control, residual herbicides at burndown planting, or tank mixed with Willowood Glufosinate 280SL help ensure optimal weed management, particularly if environmental conditions delay timely post applications. Residual herbicides can also reduce early season weed competition and are a key element of good weed resistance management practices.

Use Pattern Rate Ranges		
1 st Application	2 nd Application	Yearly Maximum
22 – 36 fl. oz./A	22 – 29 fl. oz./A	65 fl. oz./A

RESTRICTIONS TO THE DIRECTIONS FOR USE ON SOYBEANS

- **DO NOT** apply Willowood Glufosinate 280SL within 70 days of harvesting soybean seed.
- **DO NOT** apply more than 65 fl. oz. (1.19 lbs. active ingredient) of Willowood Glufosinate 280SL on soybeans per acre per year. **DO NOT** make more than two applications of Willowood Glufosinate 280SL per year.
- **DO NOT** apply more than 36 fl. oz./A (0.66 lb. active ingredient/A) of Willowood Glufosinate 280SL 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 Willowood Glufosinate 280SL if soybeans show injury from prior herbicide applications or environmental stress (drought, excessive rainfall, etc.)
- **DO NOT** apply this product through any type of irrigation system.
- Refer to the “**Rotational Crop Restrictions**” section under the “**Information**” heading of this label for the appropriate rotational crop plant back intervals.
- Sequential applications need to be at least 5 days apart.

SOYBEAN TANK MIX INSTRUCTIONS

Certain herbicide tank mixes may complement Willowood Glufosinate 280SL. No additional surfactant is needed with any tank mix partner. Willowood Glufosinate 280SL 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. Willowood Glufosinate 280SL cannot be mixed with any product containing a label prohibition against such mixing.

TANK MIX PARTNERS FOR WILLOWOOD GLUFOSINATE 280SL IN LIBERTYLINK SOYBEANS

Assure® II	Fusion®	Raptor™
Classic®	Harmony® GT	Reflex®
clethodim	Optill	Resource®
Cobra®	metolachlor	Select Max®
Fierce	Phoenix™	Sharpen
FirstRate®	Poast Plus®	Synchrony® XP
Flexstar®	Prefix	Ultra Blazer®
Fusilade® DX	Pursuit®	

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

Willowood Glufosinate 280SL may be applied to select out susceptible “segregates” (i.e., canola, corn, cotton, and soybean plants that are not tolerant to glufosinate-ammonium during seed propagation).

- **Canola:** Willowood Glufosinate 280SL 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 Use Directions for Use on Canola* for use rates and application timing.
- **Corn:** Inbred lines (plants not possessing glufosinate-ammonium tolerance) 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, Willowood Glufosinate 280SL may be applied at 22 fl. oz./A plus AMS at 3 lbs./A (17 lbs./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 fl. oz./A plus AMS at 3 lbs./A may be applied when the corn is in the V-6 to V-7 stage of growth or up to 24” tall. Sequential applications need to be at least 10 days apart. When temperatures exceed 85° F, the rate of AMS can be reduced to 1.5 lbs./A (8.5 lbs./100 gallons) to reduce potential leaf burn.
- **Cotton:** Willowood Glufosinate 280SL may also be used in cotton seed propagation as a foliar spray to selectively eliminate cotton plants that do not carry a gene that imparts tolerance to glufosinate-ammonium and as such, can be applied to remove susceptible segregates during cotton seed propagation. Breeding material not possessing the glufosinate-ammonium tolerance gene will be severely injured or killed if treated with this herbicide. See *Application Use Directions for Use on Cotton* for use rates and application timing.
- **Soybean:** For the selection of tolerant soybean (segregates), Willowood Glufosinate 280SL may be applied at up to 22 to 36 fl. oz./A when soybean is in the third trifoliolate stage. A second treatment of 22 to 29 fl. oz./A may be applied up to but not including the bloom growth stage of soybean. Sequential applications need to be at least 5 days apart.

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

Apply Willowood Glufosinate 280SL 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 – all 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 Willowood Glufosinate 280SL. 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 Willowood Glufosinate 280SL until sufficient regrowth has occurred.

Apply Willowood Glufosinate 280SL 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 Willowood Glufosinate 280SL may be necessary to control plants generating from underground parts or seed.

Avoid contact of Willowood Glufosinate 280SL 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 Willowood Glufosinate 280SL with parts of trees, vines, or berries other than mature brown bark can result in serious damage.**

Application Methods for Broadcast Applications

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

Weed Size and Stage	Willowood Glufosinate 280SL Rate
Weeds < 3" in height	48 fl. oz./A
Weeds < 6" in height pre-tiller grasses	56 fl. oz./A
Weeds > 6" in height, and or/grasses that have tillered	56 – 82 fl. oz./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:

Band width in inches	X	Rate per Acre Broadcast	=	Amount of Herbicide Needed for Treatment
Row width in inches				

Application Methods for Spot or Directed Spray Applications

For spot or directed spray applications by backpack sprayers only (no mechanically pressured handgun applications allowed), mix Willowood Glufosinate 280SL at 1.7 fl. oz. of product 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 Eveningprimrose	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*	Goldenrod, gray	Paragrass	Vaseygrass
Burdock	Guineagrass	plantain	woodsorrel
Canada thistle	Horsetail	Poison ivy/oak	Yarrow, common
Clover, alsike	Love grass	Quackgrass	
Clover, red	Mugwort	Rocket, yellow	
Clover, white	Mullein, common	Rose, wild	

*Apply to annual ryegrass prior to 3 inches in height.

**Indicates suppression.

RESTRICTIONS TO THE DIRECTIONS FOR USE ON TREE, VINE AND BERRY CROPS

1. **DO NOT** apply more than 164 fl. oz. of Willowood Glufosinate 280SL per acre (3 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 fl. oz. per acre (1.5 lbs. ai/A) per application.
2. **DO NOT** apply more than 246 fl. oz. (4.5 lbs. ai/A) of this product 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 fl. oz. per acre (1.5 lbs. ai/A) per application.
3. **DO NOT** graze, harvest, and/or feed treated orchard cover crops to livestock.
4. **DO NOT** apply this product through any type of irrigation system.
5. **DO NOT** apply this product aerially to tree, berry, or vine crops.
6. **DO NOT** apply this product within 14 days of nut, fruit, berry, or grape harvest.
7. Applications to citrus fruits, pome fruits, and olives must be a minimum of 14 days apart.
8. Applications to stone fruit must be a minimum of 28 days apart.
9. **DO NOT** make spot spray applications to suckers, as tree injury may occur.

SUCKER CONTROL WITH WILLOWOOD GLUFOSINATE 280SL

Willowood Glufosinate 280SL will reduce or eliminate sucker growth when applied to suckers that are young, green, and uncallused. For sucker control, apply a split application approximately 4 weeks apart at 56 fl. oz. of product/A. Coverage of all sucker foliage is necessary for optimum control. Suckers should not exceed 12 inches in length.

TANK MIX PARTNER INSTRUCTIONS

Willowood Glufosinate 280SL does not provide residual weed control or control of unexposed plant parts. Certain herbicide tank mixes may aid in the performance of Willowood Glufosinate 280SL or be added to provide residual herbicide activity. No additional surfactant is needed with any tank mix partner. Willowood Glufosinate 280SL 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. Willowood Glufosinate 280SL cannot be mixed with any product containing a label prohibition against such mixing.

Chateau	Princep® 4L	Sinbar® 80W
Devnnot® 50WP	Simazine 4L	Solicam® DF
Goal® 1.6E	Simazine 80W	Surflan® A/S
Karmex® DF	Simazine 90	

APPLICATION DIRECTIONS FOR POTATO VINE DESSICATION

APPLICATION RATE AND TIMING

Apply Willowood Glufosinate 280SL at the beginning of natural senescence of potato vines. Apply 21 fl. oz./A. 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 to 100 gpa) 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 gallons of water per acre when the potato vine canopy is dense or under cool and dry conditions. Apply Willowood Glufosinate 280SL 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

1. **DO NOT** apply more than 21 fl. oz. of Willowood Glufosinate 280 SL (0.38 lbs. active ingredient) to potato vines per acre per year. **DO NOT** split this application or apply more than one application per harvest.
2. **DO NOT** harvest potatoes until 9 days or more after application of Willowood Glufosinate 280SL.
3. **DO NOT** apply to potatoes grown for seed.
4. Canola, corn, cotton, soybean, and sugar beets may be planted at any time after the application of Willowood Glufosinate 280SL as a potato vine desiccant.
5. **DO NOT** plant treated areas to wheat, barley, buckwheat, millet, oats, rye, sorghum, and triticale until 30 or more days after an application of Willowood Glufosinate 280SL as a potato vine desiccant.
6. **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 Willowood Glufosinate 280SL as a potato vine desiccant.

FALLOW FIELDS OR POST HARVEST

Willowood Glufosinate 280SL may be used as a substitute for tillage in fallow fields to control or suppress weeds listed 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 Willowood Glufosinate 280SL at 22 or 29 fl. oz./A to fallow fields to control specific weeds. Willowood Glufosinate 280SL must be applied with ammonium sulfate. Tank mixes with 2,4-D, glyphosate or atrazine are specified with Willowood Glufosinate 280SL to enhance total weed control. When using Willowood Glufosinate 280SL in tank mix combinations, follow the precautions and directions for use of the most restrictive label. See the **Application and Mixing Procedures** section of this label for additional information on how to apply this product. See the **Information** section of this label for rotational crop restrictions.

FARMSTEADS, RECREATIONAL, AND PUBLIC AREAS

When applied as listed, Willowood Glufosinate 280SL 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, other public areas and general nonselective farmstead weed control. Refer to the **Application Directions for use on listed Tree, Vine, and Berry Crops** section of this label for appropriate application broadcast and spot spray application rates and lists of weeds controlled.

Specimen

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. Protect against direct sunlight.

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

CONTAINER HANDLING: Nonrefillable Container (five gallons or less): Nonrefillable container. Do not reuse or refill this container. Offer for recycling, if available. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 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. Then offer for recycling if available or reconditioning if appropriate or puncture and dispose of in a sanitary landfill or by incineration.

CONTAINER HANDLING: Nonrefillable Container (greater than five gallons): Nonrefillable container. Do not reuse or refill this container. Offer for recycling, if available. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. 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. Then offer for recycling if available or reconditioning if appropriate or puncture and dispose of in a sanitary landfill or by incineration.

SEED DISPOSAL: To dispose of out of date or otherwise unmarketable seed from plants which have been treated with this product, broadcast and lightly incorporate seed into field soils using disc or other suitable implement. Any resulting crop may be destroyed by chemical or mechanical means. Alternatively, seed may be destroyed by deep burial, incineration or landfill disposal.

CONDITION OF SALE AND LIMITATION OF WARRANTY AND LIABILITY

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

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

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

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