



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY  
AND POLLUTION PREVENTION

March 14, 2024

Meshea Brodie  
Sr. Regional Regulatory Manager  
UPL NA Inc.  
630 Freedom Business Center, Ste. 402  
King of Prussia, PA 19406

Subject: PRIA Label Amendment – Adding additional crops Hops, Camelina  
Product Name: **Lifeline Herbicide**  
EPA Registration Number: 70506-310  
Application Date: 2/15/2023  
Case Number: 482484

Dear Ms. Brodie:

The amended label referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), as amended, is acceptable. This approval does not affect any conditions that were previously imposed on this registration. You continue to be subject to existing conditions on your registration and any deadlines connected with them.

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

Should you wish to add/retain a reference to the company's website on your label, then please be aware that the website becomes labeling under FIFRA 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) lists 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

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from the EPA approved registration, the website will be referred to the EPA's Office of Enforcement and Compliance.

Your release for shipment of the product 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, please contact Sayed Islam at 202-566-2796 or [islam.sayed@epa.gov](mailto:islam.sayed@epa.gov).

Enclosure

A handwritten signature in black ink, appearing to read "Lydia Crawford". The signature is written in a cursive, flowing style.

Lydia Crawford, Acting Product Manager 25  
Fungicide Herbicide Branch  
Registration Division (7505P)  
Office of Pesticide Programs

[Optional text in brackets]  
**ACCEPTED**  
 3/14/2024  
 Under the Federal Insecticide, Fungicide  
 and Rodenticide Act as amended, for the  
 pesticide registered under  
 EPA Reg. No. 70506-310

Glufosinate-ammonium	GROUP	10	Herbicide
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# LIFELINE<sup>®</sup> Herbicide

Alternate Brand Name: Interline<sup>®</sup> Herbicide

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

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

## KEEP OUT OF REACH OF CHILDREN

### CAUTION

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

[SEE [BACK PANEL] [INSIDE BOOKLET] [BELOW] FOR FIRST AID AND ADDITIONAL  
 PRECAUTIONARY STATEMENTS]

### 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 15-20 minutes.</li> <li>■ Call a poison control center or doctor for treatment advice.</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 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing.</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 for treatment advice.</li> <li>■ Have person sip a glass of water if able to swallow.</li> <li>■ <b>DO NOT</b> induce vomiting unless told to by a poison control center or doctor.</li> <li>■ <b>DO NOT</b> give anything by mouth to an unconscious person.</li> </ul>

Have the product container or label with you when calling a Poison Center or doctor or going for treatment.  
 FOR MEDICAL EMERGENCIES INVOLVING THIS PRODUCT, CALL NATIONAL POISON CONTROL AT 1-800-222-1222 OR CHEMTREC<sup>®</sup> TOLL FREE 1-800-424-9300 or 1-703-527-3887 24 hours per day, 7 days per week.

For information on this pesticide product (including general health concerns or pesticide incidents), call the National Pesticide Information Center at 1-800-858-7378, Monday through Friday, 8:00 AM to 12:00 PM PST or at <http://npic.orst.edu>.

**NOTE TO PHYSICIAN:** If this product is ingested, endotracheal intubation and gastric lavage must be performed as soon as possible, followed by charcoal and sodium sulfate administration. You may also contact Rocky Mountain Poison and Drug Safety at 1-866-673-6671 for emergency medical treatment information.

For chemical emergency: spill, leak, fire, exposure, or accident, call CHEMTREC at 1-800-424-9300

UPL NA INC.  
 630 Freedom Business Center, Suite 402  
 King of Prussia, PA 19406 • 1-800-438-6071

EPA Reg. No. 70506-310  
 EPA Est. No. \_\_\_\_\_

Net Contents: \_\_\_\_\_ gallons

## PRECAUTIONARY STATEMENTS

### HAZARDS TO HUMANS AND DOMESTIC ANIMALS

#### CAUTION

Harmful if absorbed through skin. Avoid contact with skin, eyes, or clothing.

#### Personal Protective Equipment (PPE)

Applicators and other handlers must wear:

- All handlers must wear long-sleeved shirts, long pants, shoes, and socks.
- Applicators using ground boom equipment with open cabs to treat cotton must wear long-sleeved shirts, long pants, shoes, and socks plus chemical-resistant gloves.
- Mixer/loaders supporting ground boom applications to corn, canola, soybean, cotton, citrus fruit, pome fruit, stone fruit, and olives must wear long-sleeved shirts, long pants, shoes, and socks plus chemical-resistant gloves.
- Mixers/loaders supporting aerial applications to canola, corn, cotton, and soybean must use closed mixing/loading systems.

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

#### USER SAFETY RECOMMENDATIONS

##### Users should:

Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet.

Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

#### 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 wash waters or rinseate.

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, including no till, limited till and contour plowing; these methods also reduce pesticide run-off. Use vegetation filter strips along rivers, creeks, streams, wetlands, etc. or on the downhill side of fields where run-off could occur to minimize water runoff.

## **DIRECTIONS FOR USE**

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

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

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

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

### **AGRICULTURAL USE REQUIREMENTS**

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

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

- Canola, field corn, and soybean scouting – REI of 4 days
- Do not move irrigation pipe within 7 days of an application for any crop.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, including plants, soil, or water, is: coveralls worn over short-sleeved shirt and short pants; chemical resistant gloves including barrier laminate, butyl rubber ≥14 mils, nitrile rubber ≥14 mils, neoprene rubber ≥14 mils, polyvinyl chloride (PVC) ≥14 mils, or Viton® ≥14 mils; chemical resistant footwear plus socks; protective eyewear (goggles, face shield or safety glasses).

### **NON AGRICULTURAL USE REQUIREMENTS**

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard (WPS) for agricultural pesticides (40 CFR Part 170). The WPS applied when this product is used to produce agricultural plants on farms, forests, nurseries, or greenhouses. The application for trimming and edging, industrial, recreational and public areas, and farmsteads are not within the scope of the WPS. Keep unprotected persons out of treated areas until sprays have dried.

## IMPORTANT CROP SAFETY INFORMATION READ BEFORE USING THIS PRODUCT

### **Burndown treatments**

For row crop applications in canola, corn, sweet corn, cotton, soybean or sugar beets, LIFELINE® herbicide maybe applied to any variety as a **burndown treatment prior to planting or prior to crop emergence**.

### **Post emergent treatments**

Post emergence row crop applications of LIFELINE herbicide may be made only to crops resistant to glufosinate. The basis of selectivity of LIFELINE herbicide in glufosinate-resistant crops is the presence of a gene that makes crops not sensitive to glufosinate. **Crops not containing this glufosinate-resistant gene will be sensitive to LIFELINE herbicide and severe crop injury and/or death may occur. Do not allow spray to contact foliage or green tissue of desirable vegetation other than containing the glufosinate-resistant trait.**

Post emergent applications of LIFELINE herbicide may be applied to cotton not containing the glufosinate-resistant trait using a hooded sprayer.

### **Tree, Nut, Vine and Berry treatments**

When applying LIFELINE herbicide to apples, berries, tree nuts and vines, avoid contact of solution, spray, drift or mist with green bark, stems or foliage, as injury may occur. Only trunks with calloused, mature brown bark may be sprayed unless protected from spray contact by nonporous wraps, grow tubes or waxed containers. Contact of LIFELINE herbicide with parts of trees, berries or vines other than mature brown bark can result in serious damage.

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## PRODUCT INFORMATION

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LIFELINE herbicide is a water-soluble non-selective, broad-spectrum herbicide used for control of annual and perennial grass and broadleaf weeds in a variety of crops. Uses include applications as foliar sprays in trees, vines and berry crops for control of emerged weeds; broadcast burndown applications prior to planting or crop emergence in labeled row crops; and as over-the-top applications in canola, corn, cotton, soybeans and sugar beets designated as glufosinate-resistant. LIFELINE herbicide may be used for weed control in non glufosinate-resistant cotton when applied with a hooded sprayer in-crop.

LIFELINE herbicide may also be applied for potato vine desiccation.

## ROTATIONAL CROP RESTRICTIONS\*

Rotational crop planting intervals following application of LIFELINE herbicide 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, Sugar Beets	May be planted at any time
Root and Tuber Vegetables, Leafy Vegetables, Brassica Leafy Vegetables, 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 LIFELINE herbicide applications to potatoes. See application directions for Sugar Beets for Rotational Crop Restrictions specifically for this crop.*

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## WEED RESISTANCE MANAGEMENT

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### Herbicide Resistance Management

For resistance management, Lifeline is a Group 10 herbicide. Any weed population may contain or develop plants naturally resistant to Lifeline and other Group 14 herbicides. Weed species with acquired resistance to Group 10 may eventually dominate the weed population if Group 10 herbicides are used repeatedly in the same field. Appropriate resistance-management strategies must be followed.

To delay herbicide resistance take one or more of the following steps:

- Rotate the use of LIFELINE or other Group 10 herbicides within a growing season sequence or among growing seasons with different herbicide groups that control the same weeds in a field. Whenever possible incorporate multiple weed control practices including mechanical cultivation, biological management practices, and crop rotation.
- Use tank mixtures with herbicides from a different group if such use is permitted; where information on resistance in target weed species is available, use the less resistance-prone partner at a rate that will control the target weed(s) equally as well as the more resistance-prone partner. Consult your local extension service or certified crop advisor if you are unsure as to which active ingredient is currently less prone to resistance.
- Adopt an integrated weed-management program for herbicide use that includes scouting and uses historical information related to herbicide use and crop rotation, and that considers tillage (or other mechanical control methods), cultural (e.g. higher crop seeding rates; precision fertilizer application method and timing to favor the crop and not the weeds), biological (weed-competitive crops or varieties) and other management practices.
- Fields must be scouted before and after application to identify the weed species present and their growth stage to determine if the intended application will be effective. Scout after herbicide application to monitor weed populations for early signs of resistance development. Indicators of possible herbicide resistance include: (1) failure to control a weed species normally controlled by the herbicide at the dose applied, especially if control

is achieved on adjacent weeds; (2) a spreading patch of non-controlled plants of a particular weed species; (3) surviving plants mixed with controlled individuals of the same species. If resistance is suspected, prevent weed seed production in the affected area by an alternative herbicide from a different group or by a mechanical method including hoeing or tillage. Prevent movement of resistant weed seeds to other fields by cleaning harvesting and tillage equipment when moving between fields and planting clean seed.

- If a weed pest population continues to progress after treatment with this product, discontinue use of this product and switch to another management strategy or herbicide with a different mode of action (MOA), if available. Treat weed escapes with an herbicide with a different MOA or use non-chemical methods to remove escapes. To the extent possible **DO NOT** allow weed escapes to produce seeds, roots, or tubers.

Contact your local extension specialist, certified crop advisors, and/or manufacturer for additional herbicide resistance management and/or integrated weed management directions for specific crops and resistant weed biotypes. For further information or to report suspected resistance, contact UPL NA INC. at 1-800-438-6071.

## WEEDS CONTROLLED

The following weeds controlled charts are outlined by crop or crop group.

Volunteer glufosinate-resistant crop plants (i.e. corn, cotton, soybeans, canola) from the previous season will not be controlled by applications of LIFELINE herbicide.

### **WEEDS CONTROLLED TABLE – ROW CROPS**

Rates in fluid ounces of formulated product per acre . See **Application Instructions and Crop Use Directions** for specific use directions.

<b>Broadleaf Weeds Controlled (including glyphosate, triazine, PPO, ALS, HPPD and auxin-resistant biotypes)</b>					
<b>Weed Species</b>	<b>22-29 fl oz/A (0.40-0.53 lbs ai/A)</b>	<b>29-43 fl oz/A (0.40-0.79 lbs ai/A) *</b>	<b>Weed Species</b>	<b>22-29 fl oz/A (0.40-0.53 lbs ai/A)</b>	<b>29-43 fl oz/A (0.40-0.79 lbs ai/A) *</b>
Amaranth, Palmer <sup>4</sup>	Not Advised	C	Morningglory, sharppod	C	C
Anoda, spurred	C	C	Morningglory, smallflower	C	C
Beggarweed, Florida	C	C	Morningglory, tall	C	C
Black medic	C	C	Mustard, wild	C	C
Blueweed, Texas	C	C	Nightshade, black	C	C
Buckwheat, wild	C	C	Nightshade, eastern black	C	C
Buffalobur	C	C	Nightshade, hairy	C	C
Burcucumber	C	C	Pennycress (stinkweed)	C	C
Catchweed bedstraw (cleavers)	C	C	Pigweed, redroot	C	C
Carpetweed	C	C	Pigweed, prostrate	C	C
Chickweed, common	C	C	Pigweed, spiny	C	C
Cocklebur, common	C	C	Pigweed, smooth	C	C
Copperleaf, hophornbeam	C	C	Pigweed, tumble	C	C
Cotton, volunteer <sup>1</sup>	C	C	Puncturevine	C	C
Croton, tropic	C	C	Purslane, common	C	C
Croton, woolly	C	C	Pusley, Florida	Suppression	C



**Broadleaf Weeds Controlled (including glyphosate, triazine, PPO, ALS, HPPD  
and auxin-resistant biotypes)**

<b>Weed Species</b>	<b>22-29 fl oz/A (0.40-0.53 lbs ai/A)</b>	<b>29-43 fl oz/A (0.40-0.79 lbs ai/A) *</b>	<b>Weed Species</b>	<b>22-29 fl oz/A (0.40-0.53 lbs ai/A)</b>	<b>29-43 fl oz/A (0.40-0.79 lbs ai/A) *</b>
Eclipta	C	C	Ragweed, common	C	C
Devil's claw	C	C	Ragweed, giant	C	C
Fleabane, annual	C	C	Senna coffee	C	C
Galinsoga, hairy	C	C	Sesbania, hemp	C	C
Galinsoga, small flower	C	C	Shepherd's-Purse	C	C
Groundcherry, cutleaf	C	C	Sicklepod (java bean)	C	C
Geranium, cutleaf	C	C	Sida, prickly	C	C
Hempnettle	C	C	Smartweed, Pennsylvania	C	C
Horsenettle, Carolina <sup>2</sup>	C	C	Smellmelon	C	C
Jimsonweed	C	C	Sowthistle, annual	C	C
Knotweed	C	C	Soybeans, volunteer <sup>1</sup>	C	C
Kochia	C	C	Spurge, prostrate	C	C
Ladysthumb	C	C	Spurge, spotted	C	C
Lambsquarters, common <sup>5</sup>	Suppression	C	Starbur, bristly	C	C
Mallow, common	C	C	Sunflower, common	C	C
Mallow, Venice	C	C	Sunflower, prairie	C	C
Marestail	Suppression	C	Sunflower, volunteer	C	C
Marshelder, annual	C	C	Thistle, Russian <sup>2</sup>	Suppression	C
Morningglory, entireleaf	C	C	Velvetleaf <sup>3</sup>	C	C
Morningglory, ivyleaf	C	C	Waterhemp, common <sup>4</sup>	Not Advised	C
Morningglory, pitted	C	C	Waterhemp, tall <sup>4</sup>	Not Advised	C

C = Control

\* Use the higher rate when treating larger/taller weeds.

<sup>1</sup> Volunteer glufosinate-resistant crops from the previous season will not be controlled.

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

<sup>3</sup> For optimal control, make applications between dawn and 2 hours before sunset.

<sup>4</sup> For optimal control, make applications when weeds are on the smaller size.

**Grass Weeds Controlled (including glyphosate, triazine, PPO, ALS, HPPD  
and auxin-resistant biotypes)**

<b>Weed Species</b>	<b>22-29 fl oz/A (0.40-0.53 lbs ai/A)</b>	<b>29-43 fl oz/A (0.53-0.79 lbs ai/A)*</b>	<b>Weed Species</b>	<b>22-29 fl oz/A (0.40-0.53 lbs ai/A)</b>	<b>29-43 fl oz/A (0.53-0.79 lbs ai/A)*</b>
Barley, volunteer <sup>3</sup>	C	C	Millet, proso volunteer	C	C
Barnyardgrass	C	C	Oat, wild <sup>2</sup>	C	C
Bluegrass, annual	C	C	Panicum, fall	C	C
Corn, volunteer <sup>1</sup>	C	C	Panicum, Texas	C	C
Crabgrass, large <sup>2</sup>	C	C	Rice, red	C	C
Crabgrass, smooth <sup>2</sup>	C	C	Rice, volunteer <sup>1</sup>	C	C
Cupgrass, woolly	C	C	Sandbur, field <sup>2</sup>	Suppression	C
Foxtail, bristly	C	C	Shattercane	C	C
Foxtail, giant	C	C	Signalgrass, broadleaf	C	C
Foxtail, green	C	C	Sprangletop	C	C
Foxtail, robust purple	C	C	Sorghum, volunteer	C	C
Foxtail, yellow <sup>2</sup>	C	C	Stinkgrass	C	C
Goosegrass <sup>3</sup>	C	C	Wheat, volunteer <sup>2</sup>	C	C
Johnsongrass, seedling	C	C	Witchgrass	C	C
Junglerice	C	C			

C = Control

\* Use the higher rate when treating larger/taller weeds.

<sup>1</sup> Volunteer glufosinate-resistant crops from the previous season will not be controlled. A timely cultivation 7 to 10 days after an application and/or retreatment 10-21 days after the first application will aid in controlling dense clumps of volunteer corn.

<sup>2</sup> For best control of yellow foxtail, field sandbur, crabgrass, and wild oats, treat prior to tiller initiation.

<sup>3</sup> A sequential application may be necessary for control.

**Biennial and Perennial Weed Control (including glyphosate, triazine, PPO, ALS, HPPD and auxin-resistant biotypes)**

For control of the biennial and perennial weeds listed below, use tank mixes or sequential applications of LIFELINE herbicide

**29-43 fl oz/A (0.53-0.79 lbs ai/A) \***

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

\* Use the higher rate when treating larger/taller weeds.

<sup>S</sup> Suppression

**WEEDS CONTROLLED TABLES – SUGAR BEETS**

Apply 15 – 30 fl oz (0.3 – 0.55 lb ai) of LIFELINE herbicide per acre for the control of weeds shown in the following tables. Use the higher rate when treating larger/taller weeds.

For improved control of heavy populations or larger volunteer wheat, volunteer barley, yellow foxtail, and wild oats, LIFELINE herbicide can be tank mixed with products containing quizalofop p-ethyl, sethoxydim, or clethodim.

**Weed Species**

Barley, volunteer
Barnyardgrass
Corn, volunteer
Crabgrass, large
Crabgrass, smooth
Cupgrass, woolly
Foxtail, giant
Foxtail, green
Foxtail, yellow
Millet, volunteer proso
Millet, wild proso
Oat, wild
Panicum, fall
Panicum, Texas
Sandbur, field
Wheat, volunteer

<b>Perennial Weed Species</b>
Quackgrass
Sowthistle, perennial
Thistle, Canada

<b>Broadleaf Weed Species</b>
Buckwheat, wild
Buffalobur
Carpetweed
Chickweed, common
Cocklebur, common
Kochia
Ladysthumb
Lambsquarter, common
Mallow, Venice
Marshelder
Mustard, wild
Nightshade, eastern black
Pigweed, prostrate
Pigweed, redroot
Pigweed, smooth
Pigweed, spiny
Purslane, common
Ragweed, common
Ragweed, giant
Shepherdspurse
Smartweed, Pennsylvania
Sowthistle, annual
Sunflower, common
Thistle, Russian
Velvetleaf

## **WEEDS CONTROLLED TABLE – TREE FRUIT, TREE NUT, VINES, BERRIES, AND OLIVES**

Rates in fluid ounces of formulated product per acre for the control of weeds at selected heights. In weed populations with mixed species, apply at a rate needed for the species that requires the highest rate. See **Application Instructions and Crop Use Directions** for specific use directions. Apply as a broadcast, banded, or spot treatment application depending on the situation to control weeds listed. Regrowth may occur due to the weed stage of growth at application, low use rate, or environmental conditions. Repeat applications of LIFELINE herbicide may be necessary to control plants generating from underground part or seed.

<b>Weed Height in Inches</b>	<b>Use Rate/A</b>
Weeds < 3" in height	48 fl oz/A (0.88 lbs ai/A)
Weeds < 6" in height	56 fl oz/A (1.02 lbs ai/A)
Weeds > 6" in height and/or grasses that have tillered	56 fl oz – 82 fl oz/A (1.02 – 1.50 lbs ai/A)

<b>Broadleaf Weed Control</b>			
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
Cockebur, common	Lambsquarters, common <sup>1</sup>	Pigweed, redroot	Turnip, wild
Copperleaf, Virginia	Lettuce, miner's	Pineapple weed	Velvetleaf <sup>1</sup>
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	Shepherdspurse	

<sup>1</sup> For optimal control, make applications between dawn and 2 hours before sunset.

<b>Grass Weed Control</b>			
Barnyardgrass	Crabgrass, smooth	Junglerice	Shattercane
Bluegrass, annual	Cupgrass, woolly	Oat, wild	Sprangletop
Brome, ripgut	Foxtail, giant	Panicum, fall	Stinkgrass
Bromegrass, downy	Foxtail, green	Panicum, Texas	Wheat, volunteer

Canarygrass	Foxtail, yellow	Rush, toad <sup>S</sup>	Windgrass
Chess, soft	Goosegrass	Rygrass, annual <sup>1</sup>	Witchgrass
Crabgrass, large	Johnsongrass, seedling	Sandbur, field	

<sup>1</sup> Apply to annual ryegrass prior to 3 inches in height

<sup>S</sup> Suppression

<b>Biennial and Perennial Weed Control</b>			
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	Lovegrass	Quackgrass	
Clover, red	Mugwort	Rocket, yellow	
Clover, white	Mullein, common	Rose, wild	

## **APPLICATION AND MIXING PROCEDURES**

**Uniform, thorough spray coverage is important to achieve consistent weed control.** The use of surfactants and the addition of AMS may improve weed control. Please note that addition of MSO may cause antagonism and reduce overall performance.

Refer to the **Weeds Controlled** tables or **Applications Instructions and Crop Use Directions** for application rates.

**Ground application:** Apply early when weeds are small.

Apply in a minimum of 15 gallons of water per acre. Increase to a maximum of 40 gallons of water per acre if dense weed canopy exists or as required by climatic conditions.

**Aerial Application:** Apply early when weeds are small.

Thorough coverage is necessary for best weed control. For optimal weed control, apply LIFELINE herbicide in a minimum of 10 gallons per acre.

See the **Mandatory Spray Drift Mitigation** section for additional information on proper application of LIFELINE herbicide.

**DO NOT use flood jet nozzles, controlled droplet application equipment, or air-assisted spray equipment.**

### **COMPATIBILITY TESTING**

If LIFELINE herbicide will be mixed with other pesticide products, test the compatibility of the intended tank mixture before 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 using this process:

1. In a clear 1-quart jar, place 1.0 pint of water from the source that will be used to prepare the spray solution.
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 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 LIFELINE herbicide 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, then invert 10 times to mix.
6. Allow the mixture to stand for 15 minutes, then 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. Once 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:** LIFELINE herbicide may be applied in tank mix combinations with labeled rates of other products. Use the tank mix partner in accordance with label limitations 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.

LIFELINE herbicide must be applied with properly calibrated and clean equipment. LIFELINE herbicide is formulated to mix readily in water. Prior to adding LIFELINE herbicide 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 LIFELINE herbicide with water to make a finished spray solution as follows:

1. Fill the spray tank half full with water.
2. Begin 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 LIFELINE herbicide 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 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.

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.

## CLEANING INSTRUCTIONS

**Before using LIFELINE herbicide**, 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. Ensure that equipment is thoroughly rinsed using a commercial tank cleaner.

**After using LIFELINE herbicide**, triple rinse the spray equipment and clean with a commercial tank cleaner before using for crops not labeled as glufosinate-resistant. 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.

## MANDATORY SPRAY DRIFT MITIGATION

### Ground boom applications:

- Spray at the appropriate boom height based on nozzle selection and nozzle spacing, but **DO NOT** exceed a boom height of 24 inches above target pest or crop canopy. Set boom to lowest effective height over the target pest or crop canopy based on equipment manufacturer's directions. Automated boom height controllers are advised with large booms to better maintain optimum nozzle to canopy height. Excessive boom height will increase the potential for spray drift.
- For non-crop vegetation management ground applications, apply with the nozzle height no more than 4 feet above the ground or target vegetation, unless necessitated by the application equipment. Examples would include roadside, railroad, utility rights of way, forestry and other industrial vegetation management applications where safety or natural barriers obstruct application.
- 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.
- **DO NOT** apply when wind speeds exceed 10 miles per hour at the application site.
- **DO NOT** apply during temperature inversions.

### Aerial applications:

- When applying aurally to crops, **DO NOT** release spray at a height greater than 10 ft. above the crop canopy, unless a greater application height is necessary for pilot safety.
- 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.
- 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  $\frac{1}{2}$  swath displacement upwind at the downwind edge of the field.
- Nozzles must be oriented so the spray is directed toward the back of the aircraft.
- **DO NOT** apply when wind speeds exceed 10 miles per hour at the application site.
- **DO NOT** apply during temperature inversions.

## SPRAY DRIFT ADVISORIES

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

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.

### 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 advised for the nozzle. Higher pressure reduces droplet size and does not improve canopy penetration. **WHEN HIGHER FLOW RATES ARE NEEDED, USE A HIGHER-CAPACITY NOZZLE INSTEAD OF INCREASING PRESSURE.**



Nozzle Type - Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles.

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

Number of Nozzles - Use the minimum number of nozzles with the highest flow rate that provide uniform coverage.

Nozzle Orientation - Orienting nozzles so that the spray is emitted backwards, parallel to the airstream will produce larger droplets than other orientations. AVOIDING SPRAY DRIFT IS THE RESPONSIBILITY OF THE APPLICATOR.

Nozzle Type - Solid stream nozzles (including disc and core with swirl plate removed) oriented straight back produce larger droplets than other nozzle types.

Boom Length - Longer booms increase drift potential. Therefore a shorter boom length is advised.

Application Height - Application more than 10 ft. above the canopy increases the potential for spray drift.

#### **BOOM HEIGHT**

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

#### **DRIFT REDUCTION TECHNOLOGY (DRT)**

The EPA Drift Reduction Technology (DRT) Program was developed to encourage the manufacture, marketing, and use of spray technologies scientifically verified to significantly reduce pesticide drift. The use of DRTs may 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.

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## **APPLICATION INSTRUCTIONS AND CROP USE DIRECTIONS**

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The following tables indicate use patterns, rates, minimum spray volumes, preharvest intervals and other precautions, restrictions and comments specific to each crop. Read and follow directions carefully.

LIFELINE Herbicide is a foliar active herbicide with no soil residual activity. For best results, apply to emerged, young, actively growing weeds, targeting weeds less than 3" in height. Warm temperatures, high humidity and bright sunlight improves the performance of LIFELINE Herbicide. Necrosis of leaves and young shoots occurs within 2 to 4 days after application under growing conditions.

Weeds that emerge after application will not be controlled. LIFELINE herbicide will have an effect on these weeds, however, speed of activity and control may be reduced.

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

When applying for control of lambsquarters and velvetleaf, make applications between dawn and 2 hours before sunset to avoid the possibility of reduced control.

The addition of ammonium sulfate at 1.5 lbs to 3.0 lbs/acre may improve weed control. Rates are dependent on tankmix partners, environmental conditions, temperatures and potential for leaf burn.

Spray volume of 15 gallons of water per acre minimum. If dense canopy, large weeds or unfavorable growing conditions are present, increase water volume to 20 gallons of water per acre.

For optimal yield, early season weed removal is important.

**To maximize weed control, DO NOT cultivate from 5 days before an application to 7 days after an application.**

LIFELINE herbicide is rainfast 4 hours after application; therefore rainfall within 4 hours may necessitate retreatment.

Consult your local Cooperative Extension Service for guidelines on optimum application timing for LIFELINE Herbicide in your region.

Crop	Use Pattern	Rate/Acre	Directions	Restrictions
<b>COTTON</b> OPTION 1 (choose one of two use scenarios)	<b>Burndown</b> (Prior to Planting or Prior to Crop Emergence)	<u>1<sup>st</sup> application</u> 29.0 – 43.0 fl oz/A (0.53 – 0.79 lbs ai/A)	Apply to emerged, young, actively growing weeds.  Uniform, thorough spray coverage is necessary to achieve consistent weed control.	In-Season <b>DO NOT</b> apply to cotton in Florida, South of Tampa (Florida Route 60), or in Hawaii, except for test plots or breeding nurseries.  <b>DO NOT</b> apply within 70 days of harvest.  <b>DO NOT</b> apply through any type of irrigation system.  <u>Scenario 1 allows:</u> 1 burndown application at 29 fl oz (0.53 lb ai)/A PLUS 2 In-Season applications each at 29 fl oz (0.53 lb ai)/A, no closer than 10 days apart,  Under Scenario 1 <b>DO NOT</b> apply more than 87 fl oz (1.59 lbs ai)/A per year.  <u>Scenario 2 allows:</u> One In-Season application at 32 – 43 fl oz (0.59 – 0.79 lb ai)/A PLUS  One In-Season application at 29 fl oz (0.53 lb ai)/A, no closer than 10 days apart.  Under Scenario 2 <b>DO NOT</b> apply more than 72 fl oz (1.32 lbs ai)/A per year.
	<b>In-Season</b> (Post Emergent to the Crop)	<u>2<sup>nd</sup> application</u> 22.0 – 29.0 fl oz/A (0.40 – 0.53 lbs ai/A)	When applying In-Season to non glufosinate-resistant cotton, a hooded sprayer must be used. <b>Refer to Application Methods to non glufosinate-resistant cotton.</b>  <b>Post Emergent application:</b> apply from crop emergence to early bloom stage  <b>Severe injury or death may result if the LIFELINE Herbicide contacts the foliage or stems of cotton NOT labeled as glufosinate-resistant.</b>	

Crop	Use Pattern	Rate/Acre	Directions	Restrictions
<p><b>COTTON</b> OPTION 2 Up to 3 applications (choose one of two use scenarios)</p>	<p><b>Burndown</b> (Prior to Planting or Prior to Crop Emergence)  <b>In-Season</b> (Post Emergent to the Crop)</p>	<p><u>1<sup>st</sup> application</u> 22 - 29.0 fl oz/A (0.4 - 0.53 lbs ai/A)  <u>2<sup>nd</sup> application</u> 22.0 – 29.0 fl oz/A (0.40 – 0.53 lbs ai/A)  <u>3<sup>rd</sup> application</u> 22.0 – 29.0 fl oz/A (0.40 – 0.53 lbs ai/A)</p>	<p>If first application is a burndown application, apply at the highest 1<sup>st</sup> application use rate.  Apply to emerged, young, actively growing weeds.  Uniform, thorough spray coverage is necessary to achieve consistent weed control.  When applying In-Season to non glufosinate-resistant cotton, a hooded sprayer must be used. <b>Refer to Application Methods to non glufosinate-resistant cotton.</b>  <b>Post Emergent application:</b> apply from crop emergence to early bloom stage  <b>Severe injury or death may result if the LIFELINE Herbicide contacts the foliage or stems of cotton NOT labeled as glufosinate-resistant.</b></p>	<p>In-Season <b>DO NOT</b> apply to cotton in Florida, South of Tampa (Florida Route 60), or in Hawaii, except for test plots or breeding nurseries.  <u>Scenario 1 allows:</u>  One burndown application at 30-43 fl oz (0.55 – 0.79 lb ai)/A PLUS  One In-Season application at 29 fl oz (0.53 lb ai)/A.  Under Scenario 1 <b>DO NOT</b> apply more than 72 fl oz (1.32 lbs ai)/A per year.  <u>Scenario 2 allows:</u>  Three In-Season applications each at 29 fl oz (0.53 lb ai)/A, no closer than 10 days apart.  Under Scenario 2 <b>DO NOT</b> apply more than 87 fl oz (1.59 lbs ai)/A per year.  <b>DO NOT</b> apply more than 29 fl oz (0.53 lbs ai)/A in any single application.  <b>DO NOT</b> apply within 70 days of harvest.  <b>DO NOT</b> apply through any type of irrigation system.</p>
<p>COTTON: If environmental conditions prevent a timely herbicide application resulting in large weeds or heavy infestations, a single application of up to 43 fl oz (0.79 lb ai) per acre of Lifeline Herbicide may be made to cotton. <b>DO NOT</b> apply more than 43 fl oz (0.79 lb ai) in a single application under this use scenario. If a single application of 43 fl oz (0.79 lb ai) per acre is made, a subsequent application not to exceed 29 fl oz (0.53 lb ai) may be made to cotton. The yearly total under this scenario may not exceed 72 fl oz (1.32 lb ai) per acre including all application timings. Make sequential applications at least 10 days apart.</p> <p>*Apply the higher rate to control larger weeds growing in the crop at the time of harvest.</p> <ul style="list-style-type: none"> <li>- Refer to <b>Weeds Controlled – Row Crop</b> table for proper application rate for specific weeds.</li> <li>- <b>Refer to Application Methods to Non glufosinate-resistant Cotton when making In-Season applications to non glufosinate-resistant cotton.</b></li> </ul>				
<p><b>COTTON</b></p>	<p><b>Post harvest Burndown</b> (After Cotton Harvest)</p>	<p>29.0 – 43.0 fl. oz/A (0.53 – 0.79 lbs ai/A)</p>	<p>Apply to emerged, young, actively growing weeds.  Uniform, thorough spray coverage is necessary to achieve consistent weed control.</p>	<p><b>DO NOT</b> apply through any type of irrigation system.  <b>DO NOT</b> apply more than: 43 fl oz (0.79 lb ai)/A in any single application.  <b>DO NOT</b> apply more than once per acre per year as a post harvest burndown</p>

Crop	Use Pattern	Rate/Acre	Directions	Restrictions
				<p>application.</p> <p><b>DO NOT</b> apply more than 87.0 fl oz (1.59 lbs ai)/A through any combinations of use patterns per year. If any single application is made at more than 29 fl oz (0.53 lb ai)/A, <b>DO NOT</b> apply more than 72 fl oz (1.32 lb ai)/A per year.</p>
<b>CORN</b> Field, Silage, Sweet	<b>Burndown</b> (Prior to Planting or Prior to Crop Emergence)	29.0 – 43.0 fl oz/A  (0.53 – 0.79 lbs ai/A)	<p>Apply to emerged, young, actively growing weeds.</p> <p>Uniform, thorough spray coverage is necessary to achieve consistent weed control.</p>	<p><b>DO NOT</b> apply more than 43 fl oz (0.79 lbs ai)/A in any single application as a burndown treatment.</p> <p><b>DO NOT</b> apply more than once per acre per year under this use pattern.</p>
<b>CORN</b> Field, Silage	<b>In-Season to Glufosinate-resistant Corn Only (Post Emergent to the Crop)</b>	<p>22.0 fl oz/A – 43 fl oz/A  (0.40 – 0.79 lbs ai/A)</p> <p>A second In-Season application may be needed to control weeds that have not yet emerged at time of application.</p>	<p>Apply to emerged, young, actively growing weeds.</p> <p>Uniform, thorough spray coverage is necessary to achieve consistent weed control.</p> <p><b>Post Emergent application:</b> apply from emergence up to V6 stage of growth</p> <p>For corn 24" to 36" tall, only apply using ground application and nozzles and avoid spraying into the whorl or leaf axils of the corn stalks.</p> <p>Must be applied with ammonium sulfate (AMS).</p>	<p><b>DO NOT</b> make more than 2 In-Season applications per acre per year, and <b>DO NOT</b> apply closer than 7 days apart.</p> <p><b>DO NOT</b> apply more than 43 fl oz (0.79 lbs ai)/A in any single application.</p> <p><b>DO NOT</b> apply with 60 days of harvesting corn forage, and within 70 days of harvesting corn grain or corn fodder.</p> <p><b>DO NOT</b> apply through any type of irrigation system.</p> <p><b>DO NOT</b> apply more than 87.0 fl oz (1.59 lbs ai)/A through any combination of use patterns per year.</p> <p><b>DO NOT</b> use nitrogen solutions as spray carriers. A silicone based anti foam agent may be added if needed.</p> <p><b>DO NOT</b> apply if corn shows injury from environmental stress or prior herbicide applications.</p>
<b>CORN</b> Sweet	<b>In-Season to Glufosinate-resistant Sweet Corn Only (Post Emergent to the Crop)</b>	<p>22.0 fl oz/A  (0.40 lbs ai/A)</p> <p>A second In-Season application</p>	<p>Apply to emerged, young, actively growing weeds.</p> <p>Uniform, thorough spray coverage is necessary to achieve consistent weed control.</p>	<p>If used as a burndown application, no In-Season applications may be applied.</p> <p><b>DO NOT</b> make more than 2 In-Season applications per acre per year and <b>DO NOT</b></p>

Crop	Use Pattern	Rate/Acre	Directions	Restrictions
		<p>may be needed to control weeds that have not yet emerged at time of application.</p>	<p>control.</p> <p><b>Post Emergent application:</b> apply from emergence up to V6 stage of growth.</p> <p>Must be applied with ammonium sulfate (AMS).</p>	<p>apply closer than 7 days apart.</p> <p><b>DO NOT</b> apply more than 22 fl oz (0.40 lbs ai)/A in any single application.</p> <p><b>DO NOT</b> apply within 50 days of harvesting sweet corn ears and within 55 days of harvesting stover.</p> <p><b>DO NOT</b> apply through any type of irrigation system.</p> <p><b>DO NOT</b> apply more than 44.0 fl oz (0.80 lbs ai)/A through any combination of use patterns per year.</p> <p><b>DO NOT</b> use nitrogen solutions as spray carriers. A silicone based anti foam agent may be added if needed.</p> <p><b>DO NOT</b> apply if corn shows injury from environmental stress or prior herbicide applications.</p>
<ul style="list-style-type: none"> <li>- For best results use only fine feed grade or spray grade AMS at 3 lbs/A (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 crops oils may increase risk of crop response.</li> <li>- Refer to <b>Weeds Controlled – Row Crop</b> table for proper application rates for specific weeds.</li> </ul>				
<p><b>CANOLA, GOLD OF PLEASURE (CAMELINA)</b></p>	<p><b>Burndown</b> (Prior to Planting or Prior to Crop Emergence)</p>	<p>29.0 – 43.0 fl oz/A  (0.53 – 0.79 lbs ai/A)</p>	<p>Apply to emerged, young, actively growing weeds.</p> <p>Uniform, thorough spray coverage is necessary to achieve consistent weed control.</p>	<p><b>DO NOT</b> apply more than once as a burndown application.</p> <p>If used as a burndown application, no In-Season applications may be applied.</p>
	<p><b>In-Season</b> to Glufosinate-resistant Canola or Gold of Pleasure (Camelina) (Post Emergent to the Crop)</p>	<p>29.0 fl oz/A (0.53 lbs ai/A)</p> <p>A second In-Season application may be needed to control weeds that have not yet emerged at time of application.</p>	<p><b>Post Emergent application:</b> apply from cotyledon stage up to early bolting stage.</p> <p>Slight discoloration of the canola may be visible after application. This effect is temporary and will not influence crop growth, maturity, or yield.</p> <p>May be applied with feed grade or spray grade ammonium sulfate (AMS) at 3 lbs/A.</p>	<p><b>DO NOT</b> make more than 2 In-Season applications per year, and <b>DO NOT</b> apply closer than 7 days apart.</p> <p>Maximum single application: burndown 43 fl oz (0.79 lbs ai)/A; In-Season 29 fl oz (0.53 lbs ai)/A.</p> <p><b>DO NOT</b> apply In-Season in states of AL, DE, GA, KY, MD, NJ, NC, SC, TN, VA, WV.</p> <p><b>DO NOT</b> apply within 65 days of harvest.</p>

Crop	Use Pattern	Rate/Acre	Directions	Restrictions
			Additional surfactants or crop oils may increase risk of crop response.	<p><b>DO NOT</b> graze the treated crop or cut for hay.</p> <p><b>DO NOT</b> apply through any type of irrigation system.</p> <p><b>DO NOT</b> apply more than 87.0 fl oz (1.59 lbs ai)/A through any combination of use patterns per year.</p> <p><b>DO NOT</b> apply more than 58 fl oz/A per year if no burndown application was used.</p> <p><b>DO NOT</b> apply if canola shows injury from environmental stress or prior herbicide applications.</p>
- Refer to <b>Weeds Controlled – Row Crop</b> table for proper application rate for specific weeds.				
<b>SOYBEAN</b>	<p><b>Burndown</b> (Prior to Planting or Prior to Crop Emergence)</p> <p><b>In-Season</b> to Glufosinate-resistant Soybeans Only (Post Emergent to the Crop)</p>	<p>1<sup>st</sup> application 29.0 -43.0 fl oz/A (0.53 – 0.79 lbs ai/A)</p> <p>2<sup>nd</sup> application 22.0 – 43.0 fl oz/A (0.40 – 0.79 lbs ai/A)</p>	<p>Apply to emerged, young, actively growing weeds.</p> <p>Uniform, thorough spray coverage is necessary to achieve consistent weed control.</p> <p>A silicone-based antifoam agent may be added if needed.</p> <p><b>Post Emergent application:</b> apply from crop emergence up to bloom or R1 growth stage.</p>	<p><b>DO NOT</b> apply more than 43 fl oz (0.79 lbs ai)/A in any single application.</p> <p><b>DO NOT</b> make more than two applications per year through any combination of burndown and In-Season applications, and <b>DO NOT</b> apply closer than 5 days apart.</p> <p><b>DO NOT</b> apply within 70 days of harvesting soybean seed.</p> <p><b>DO NOT</b> graze the treated crop or cut for hay.</p> <p><b>DO NOT</b> apply through any type of irrigation system.</p> <p><b>DO NOT</b> apply more than 87.0 fl oz (1.59 lbs ai) /A through any combination of use patterns per year.</p> <p><b>DO NOT</b> use nitrogen solutions as spray carriers.</p> <p><b>DO NOT</b> apply if soybeans show injury from environmental stress or prior herbicide applications.</p>
- Refer to <b>Weeds Controlled – Row Crop</b> table for proper application rate for specific weeds.				

<b>SUGAR BEETS</b>	<b>Burndown</b> (Prior to Planting or Prior to Crop Emergence)	29.0 – 36.0 fl oz/A  (0.53 – 0.66 lbs ai/A)	Apply to emerged, young, actively growing weeds.  For best control begin application when weeds are up to 1 inch in height or diameter. Repeat applications when newly germinated weeds again	If used as burndown, no In-Season applications may be applied.  <b>DO NOT</b> make more than two In-Season applications per year and <b>DO NOT</b> apply closer than 10 days apart.
	<b>In-Season</b> to Glufosinate-resistant Sugar	29.0 fl oz/A  (0.53 lbs ai/A)		
	Beets Only (Post Emergent to the Crop)	A second In-Season application may be needed to control weeds that have not yet emerged at time of application.	reach 1 inch in height or diameter.  Uniform, thorough spray coverage is necessary to achieve consistent weed control.  <b>Post Emergent application:</b> apply from cotyledon stage up to 10 leaf stage of sugar beet.	<b>DO NOT</b> apply more than: burndown 36 fl oz (0.66 lbs ai)/A; In-Season 30 fl oz (0.55 lbs ai)/A in a single application  <b>DO NOT</b> apply within 60 days of harvesting sugar beets.  <b>DO NOT</b> plant rotation crops in a field treated with LIFELINE herbicide within 120 days after the last application of this product with the exception of wheat, barley, buckwheat, millet, oats, rye, sorghum, and triticale, which may be planted 70 days after the last application of this product. Crops listed on this label may be planted at any time.  <b>DO NOT</b> graze the treated crop or cut for hay.  <b>DO NOT</b> apply product through any type of irrigation system.  <b>DO NOT</b> apply more than 60.0 fl oz (1.10 lbs ai)/A through any combination of use patterns per year.  <b>DO NOT</b> add surfactants. Anti foams or drift control agents may be added if needed.  <b>DO NOT</b> apply if sugar beets show injury from environmental stress or prior herbicide applications.
- Refer to <b>Weeds Controlled – Row Crop</b> table for proper application rate for specific weeds.				

<p><b>HOPS</b></p>	<p><b>Burndown</b> (14 days Prior to Planting)</p> <p>Broadcast</p>	<p><b>Weeds &lt; 3" in height</b> 32 fl oz/A (0.59 lbs ai/A)</p> <p><b>Weeds &lt; 6" in Height and grasses that have tillered</b> 55 fl oz/A (1.00 lbs ai/A)</p>	<p>Only trunks with callused, mature brown bark may be sprayed unless protected from spray contact by nonporous wraps, grow tubes, or waxed containers.</p> <p>Avoid direct spray, drift or mist to green bark, stems, foliage, or fruit as injury may occur</p>	<p><b>DO NOT</b> apply hops that are less than 6 feet tall, and then only apply to the lower 18 inches of hops plants that are over 6 feet tall.</p> <p><b>DO NOT</b> apply to hop suckers prior to training hops on the string/wire and before hop height is 6 feet tall on string/wire.</p> <p><b>DO NOT</b> use this product to burn back existing vines to obtain even emergence of subsequent vines.</p> <p><b>DO NOT</b> apply more than 55 fl ozs/A (1.00 lb ai/A of glufosinate) in a single application.</p> <p><b>DO NOT</b> apply more than a maximum cumulative amount of 165 fl ozs/A (3.00 lbs ai/A of glufosinate) from sequential applications in hops per year.</p> <p>Maximum number of applications per year: 3</p> <p>Separate sequential applications by at least 25 days.</p> <p><b>DO NOT</b> apply this product aerially to hops.</p>
<p><b>POME FRUIT</b> (Crop Group 11-10) Apples, Crabapple, Loquat, Mayhaw, Quince, Pear, Oriental Pear Azarole,</p>	<p>Broadcast</p> <p>Banded</p> <p>Directed Spray</p> <p>Spot Treatments</p> <p>See <b>Application Methods</b> section for</p>	<p><b>Weeds &lt; 3" in height</b> 48 fl oz/A (0.88 lbs ai/A)</p> <p><b>Weeds &lt; 6" in height</b> 56 fl oz/A (1.02 lbs ai/A)</p> <p><b>Weeds &gt; 6" in height and/or</b></p>	<p>Apply to emerged, young, actively growing weeds.</p> <p>Uniform, thorough spray coverage is necessary to achieve consistent weed control.</p> <p>Avoid direct spray, drift or mist to desirable vegetation, green bark, stems or foliage, as injury may occur.</p>	<p><b>DO NOT</b> apply more than 82 fl oz (1.50 lbs ai)/A in a single application.</p> <p><b>DO NOT</b> make more than 3 applications per year at the maximum rate of 82 fl oz (1.50 lb ai)/A, and <b>DO NOT</b> apply closer than 14 days apart.</p> <p><b>DO NOT</b> graze, harvest and/or feed treated orchard</p>



Crop	Use Pattern	Rate/Acre	Directions	Restrictions
<p>Medlar, Tejocote, cultivars, varieties and/or hybrids of these</p>	<p>additional information on Banded, Directed Spray and Spot Treatments</p>	<p><b>grasses that have tillered</b> 56 fl oz – 82 fl oz/A (1.02 – 1.50 lbs ai/A)</p>	<p>Only trunks with callused, mature brown bark may be sprayed unless protected from spray contact by nonporous wraps, grow tubes, or waxed containers.</p> <p>When tankmixing with a residual herbicide no additional surfactant is needed.</p>	<p>cover crops to livestock.</p> <p><b>DO NOT</b> aerially apply.</p> <p><b>DO NOT</b> apply through any type of irrigation system.</p> <p><b>DO NOT</b> make spot spray applications to suckers as tree injury may occur.</p> <p><b>DO NOT</b> apply within 14 days of harvest.</p> <p><b>DO NOT</b> apply more than 246 fl oz (4.5 lbs ai)/A through any combination of use patterns per year.</p>
<p><b>CITRUS (Crop Group 10-10)</b> Calamondin, Citrus citron, Citrus hybrids (chironja, tangelo, tangor), Grapefruit, Kumquat, Lemon, Lime, Mandarin (tangerine), Orange (sour, sweet), Pummelo, Satsuma mandarin cultivars, varieties and/or hybrids of these</p>	<p>Broadcast Banded Directed Spray Spot Treatments</p> <p>See <b>Application Methods</b> section for additional information on Banded, Directed Spray and Spot Treatments</p>	<p><b>Weeds &lt; 3” in height</b> 48 fl oz/A (0.88 lbs ai/A)</p> <p><b>Weeds &lt; 6” in height</b> 56 fl oz/A (1.02 lbs ai/A)</p> <p><b>Weeds &gt; 6” in height and/or grasses that have tillered</b> 56 fl oz – 82 fl oz/A (1.02 – 1.50 lbs ai/A)</p>	<p>Apply to emerged, young, actively growing weeds.</p> <p>Uniform, thorough spray coverage is necessary to achieve consistent weed control.</p> <p>Avoid direct spray, drift or mist to desirable vegetation, green bark, stems or foliage, as injury may occur.</p> <p>Only trunks with callused, mature brown bark may be sprayed unless protected from spray contact by nonporous wraps, grow tubes, or waxed containers.</p>	<p><b>DO NOT</b> apply more than 82 fl oz (1.50 lbs ai)/A in a single application.</p> <p><b>DO NOT</b> make more than 3 applications per year at the maximum rate of 82 fl oz (1.50 lb ai)/A, and <b>DO NOT</b> apply closer than 14 days apart.</p> <p><b>DO NOT</b> graze, harvest and/or feed treated orchard cover crops to livestock.</p> <p><b>DO NOT</b> aerially apply.</p> <p><b>DO NOT</b> apply through any type of irrigation system.</p> <p><b>DO NOT</b> make spot spray applications to suckers as tree injury may occur.</p> <p><b>DO NOT</b> apply within 14 days of harvest.</p> <p><b>DO NOT</b> apply more than 246 fl oz (4.5 lbs ai)/A through any combination of use patterns per year.</p>

Crop	Use Pattern	Rate/Acre	Directions	Restrictions
<b>GRAPES</b> Table, Wine, Raisin	Broadcast Banded Directed Spray Spot Treatments  See <b>Application            Methods</b> section for additional information on Banded, Directed Spray and Spot Treatments	<b>Weeds &lt; 3" in            height</b> 48 fl oz/A (0.88 lbs ai/A)  <b>Weeds &lt; 6" in            height</b> 56 fl oz/A (1.02 lbs ai/A)  <b>Weeds &gt; 6" in            height and/or            grasses that            have tillered</b> 56 fl oz – 82 fl oz/A (1.02 – 1.50 lbs ai/A)	Apply to emerged, young, actively growing weeds.  Uniform, thorough spray coverage is necessary to achieve consistent weed control.  Avoid direct spray, drift or mist to desirable vegetation, green bark, stems, or foliage as injury may occur.  Only trunks with callused, mature brown bark may be sprayed unless protected from spray contact by nonporous wraps, grow tubes, or waxed containers.	<b>DO NOT</b> apply more than 82 fl oz (1.50 lbs ai)/A in a single application.  <b>DO NOT</b> make more than 3 applications per year at the maximum rate of 82 fl oz (1.50 lb ai)/A, and <b>DO NOT</b> apply closer than 14 days apart.  <b>DO NOT</b> aerially apply.  <b>DO NOT</b> apply through any type of irrigation system.  <b>DO NOT</b> make spot spray applications to suckers as tree injury may occur.  <b>DO NOT</b> apply within 14 days of harvest.  <b>DO NOT</b> apply more than 246 fl oz (4.5 lb ai)/A through any combination of use patterns per year.
<b>STONE            FRUIT            (Crop            Group 12-            12)</b> Apricot, Cherry (sweet, tart), Nectarine, Peach, Plum (chickasaw, damson, Japanese), Plumcot, Prune (fresh)	Broadcast Banded Directed Spray Spot Treatments  See <b>Application            Methods</b> section for additional information on Banded, Directed Spray and Spot Treatments	<b>Weeds &lt; 3" in            height</b> 48 fl oz/A (0.88 lbs ai/A)  <b>Weeds &lt; 6" in            height</b> 56 fl oz/A (1.02 lbs ai/A)  <b>Weeds &gt; 6" in            height and/or            grasses that            have tillered</b> 56 fl oz – 82 fl oz/A (1.02-1.50 lbs ai/A)	Apply to emerged, young, actively growing weeds.  Uniform, thorough spray coverage is necessary to achieve consistent weed control.  Avoid direct spray, drift or mist to desirable vegetation, green bark, stems, or foliage as injury may occur.  Only trunks with callused, mature brown bark may be sprayed unless protected from spray contact by nonporous wraps, grow tubes, or waxed containers.	<b>DO NOT</b> apply more than 82 fl oz (1.50 lbs ai)/A in a single application.  <b>DO NOT</b> make more than 2 applications per year at the maximum rate of 82 fl oz (1.50 lb ai)/A, and <b>DO NOT</b> apply closer than 28 days apart.  <b>DO NOT</b> graze, harvest and/or feed treated orchard cover crops to livestock.  <b>DO NOT</b> aerially apply.  <b>DO NOT</b> apply through any type of irrigation system.  <b>DO NOT</b> make spot spray applications to suckers as tree injury may occur.  <b>DO NOT</b> apply within 14 days of harvest.  <b>DO NOT</b> apply more than 164 fl oz (3.0 lb ai)/A through any combination of use patterns per year.

Crop	Use Pattern	Rate/Acre	Directions	Restrictions
<p><b>TREE NUTS (Crop Group 14)</b></p> <p>Almond, Beech nut, Brazil nut, Butternut, Cashew, Chestnut, Chinquapin, Filbert (hazelnut), Hickory nut, Macadamia (bush nut), Pecan, Pistachio, Walnut (black and English (Persian))</p>	<p>Broadcast Banded Directed Spray Spot Treatments</p> <p>See <b>Application Methods</b> section for additional information on Banded, Directed Spray and Spot Treatments</p>	<p><b>Weeds &lt; 3" in height</b> 48 fl oz/A (0.88 lbs ai/A)</p> <p><b>Weeds &lt; 6" in height</b> 56 fl oz/A (1.02 lbs ai/A)</p> <p><b>Weeds &gt; 6" in height and/or grasses that have tillered</b> 56 fl oz – 82 fl oz/A (1.02 – 1.50 lbs ai/A)</p>	<p>Apply to emerged, young, actively growing weeds.</p> <p>Uniform, thorough spray coverage is necessary to achieve consistent weed control.</p> <p>Avoid direct spray, drift or mist to desirable vegetation, green bark, stems, or foliage, as injury may occur.</p> <p>Only trunks with callused, mature brown bark may be sprayed unless protected from spray contact by nonporous wraps, grow tubes, or waxed containers.</p>	<p><b>DO NOT</b> apply more than 82 fl oz (1.50 lbs ai)/A in a single application.</p> <p><b>DO NOT</b> make more than 3 applications per year at the maximum rate of 82 fl oz (1.50 lb ai)/A, and <b>DO NOT</b> apply closer than 14 days apart.</p> <p><b>DO NOT</b> graze, harvest and/or feed treated orchard cover crops to livestock.</p> <p><b>DO NOT</b> aerially apply.</p> <p><b>DO NOT</b> apply through any type of irrigation system.</p> <p><b>DO NOT</b> make spot spray applications to suckers as tree injury may occur.</p> <p><b>DO NOT</b> apply within 14 days of harvest.</p> <p><b>DO NOT</b> apply more than 246 fl oz (4.5 lbs ai)/A through any combination of use patterns per year.</p>
<p><b>BERRIES (Bushberry Subgroup 13b)</b></p> <p>Bushberries, blueberry, currant, elderberry, gooseberry, and huckleberry lingonberry, juneberry, salal</p>	<p>Broadcast Banded Directed Spray Spot Treatments</p> <p>See <b>Application Methods</b> section for additional information on Banded, Directed Spray and Spot Treatments</p>	<p><b>Weeds &lt; 3" in height</b> 48 fl oz/A (0.88 lbs ai/A)</p> <p><b>Weeds &lt; 6" in height</b> 56 fl oz/A (1.02 lbs ai/A)</p> <p><b>Weeds &gt; 6" in height and/or grasses that have tillered</b> 56 fl oz – 82 fl oz/A (1.02 – 1.50 lbs ai/A)</p>	<p>Apply to emerged, young, actively growing weeds.</p> <p>Uniform, thorough spray coverage is necessary to achieve consistent weed control.</p> <p>Avoid direct spray, drift or mist to desirable vegetation, green bark, stems, or foliage, as injury may occur.</p> <p>Only trunks with callused, mature brown bark may be sprayed unless protected from spray contact by nonporous wraps, grow tubes, or waxed containers.</p>	<p><b>DO NOT</b> apply more than 82 fl oz (1.50 lbs ai)/A in a single application.</p> <p><b>DO NOT</b> make more than 2 applications per year at the maximum rate of 82 fl oz (1.50 lb ai)/A, and <b>DO NOT</b> apply closer than 14 days apart.</p> <p><b>DO NOT</b> aerially apply.</p> <p><b>DO NOT</b> apply through any type of irrigation system.</p> <p><b>DO NOT</b> make spot spray applications to suckers as tree injury may occur.</p> <p><b>DO NOT</b> apply within 14 days of harvest.</p> <p><b>DO NOT</b> apply more than 164 fl oz (3.0 lb ai)/A through any combination of use patterns per year.</p>

Crop	Use Pattern	Rate/Acre	Directions	Restrictions
<b>OLIVES</b>	Broadcast Banded Directed Spray Spot Treatments  See <b>Application Methods</b> section for additional information on Banded, Directed Spray and Spot Treatments	<b>Weeds &lt; 3" in height</b> 48 fl oz/A (0.88 lbs ai/A) <b>Weeds &lt; 6" in height</b> 56 fl oz/A (1.02 lbs ai/A) <b>Weeds &gt; 6" in height and/or grasses that have tillered</b> 56 fl oz – 82 fl oz/A (1.02 – 1.50 lbs ai/A)	Apply to emerged, young, actively growing weeds.  Uniform, thorough spray coverage is necessary to achieve consistent weed control.  Avoid direct spray, drift or mist to desirable vegetation, green bark, stems, or foliage, as injury may occur.  Only trunks with callused, mature brown bark may be sprayed unless protected from spray contact by nonporous wraps, grow tubes, or waxed containers.	<b>DO NOT</b> apply more than 82 fl oz (1.50 lbs ai)/A in a single application.  <b>DO NOT</b> make more than 3 applications per year at the maximum rate of 82 fl oz (1.50 lb ai), and <b>DO NOT</b> apply closer than 14 days apart.  <b>DO NOT</b> graze, harvest and/or feed treated orchard cover crops to livestock.  <b>DO NOT</b> aerially apply.  <b>DO NOT</b> apply through any type of irrigation system.  <b>DO NOT</b> make spot spray applications to suckers as tree injury may occur.  <b>DO NOT</b> apply within 14 days of harvest.  <b>DO NOT</b> apply more than 246 fl oz (4.50 lbs ai)/A through any combination of use patterns per year.
<b>POTATOES</b>	<b>Vine Desiccation</b>	21.0 fl oz/A (0.38 lbs ai/A)	Apply at the beginning of natural senescence of potato vines.  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 sufficient volume of water (20 to 100 gpa).  Vary the gallons of water per acre and spray pressure as indicated by the density of the potato vines.  Increase spray volume to at least 30 gallons of water per acre when potato canopy is dense or under cool and dry conditions.  Apply with the spray	<b>DO NOT</b> apply to potatoes grown for seed.  <b>DO NOT</b> apply more than 21 fl oz (0.38 lbs ai)/A in a single application.  <b>DO NOT</b> split application or make more than 1 application per year.  <b>DO NOT</b> harvest potatoes until 9 days or more after application.  <b>DO NOT</b> apply more than 21.0 fl oz/(0.38 lbs ai)/A per year.

Crop	Use Pattern	Rate/Acre	Directions	Restrictions
			boom as low as possible to achieve thorough coverage of the potato vines for best control and to minimize drift potential.	
<ul style="list-style-type: none"> <li>- Canola, corn, cotton, soybean and sugar beets may be planted at any time after an application of LIFELINE herbicide as a potato vine desiccant.</li> <li>- Wheat, barley, buckwheat, millet, oats, rye sorghum or triticale may be planted 30 days or more after an application of LIFELINE herbicide as a potato vine desiccant.</li> <li>- All other crops may be planted 120 or more days after an application of LIFELINE herbicide as a potato vine desiccant.</li> </ul>				

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## SUCKER CONTROL

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When applied to suckers that are young, green, and uncalloused, LIFELINE herbicide will reduce or eliminate sucker growth. For sucker control, make a split application approximately 4 weeks apart at 56 fl oz of product/A (1.02 lbs ai/A) in a broadcast application. Thorough coverage of all sucker foliage is necessary for optimum control. Suckers must not exceed 12 inches in length. **DO NOT** make spot applications to trunk as injury may occur.

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## TANK MIX PARTNER INSTRUCTIONS

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Because LIFELINE herbicide does not provide residual weed control or control of unexposed plant parts, certain herbicide tank mixes may aid in the performance of LIFELINE herbicide or be added to provide residual herbicide activity. No additional surfactant is needed with any tank mix partner. LIFELINE herbicide may be applied in tank mix combinations with labeled rates of other products that are labeled for the timing and method of application for the crop to be treated. Always use the tank mix partner in accordance with the label limitations and restrictions. **DO NOT** exceed label dosage rates. LIFELINE herbicide may not be mixed with any product containing a label prohibition against such mixing. It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

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## APPLICATION METHODS

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### COTTON NOT DESIGNATED AS GLUFOSINATE-RESISTANT

Application of LIFELINE herbicide to cotton varieties not designated as glufosinate-resistant 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. 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 as this may cause spray particles to 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:

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

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

## BANDED SPRAY APPLICATIONS – TREE FRUIT, TREE NUTS, VINES AND BERRIES

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

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

## SPOT OR DIRECTED SPRAY APPLICATIONS – TREE FRUIT, TREE NUTS, VINES AND BERRIES

For spot or directed spray applications mix LIFELINE herbicide at 1.7 fl oz of product (0.33 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

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## TANK MIXTURES

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See **Compatibility Testing** section of this label if tankmixing with other pesticide products.

For all crops certain herbicide tank mixes may aid in the performance of LIFELINE herbicide or be added to provide residual herbicide activity. When tank mixing with a residual herbicide no additional surfactant is needed. LIFELINE herbicide may be applied in tank mix combinations with labeled rates of other products 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 restrictions. No label dosage rates may be exceeded. LIFELINE herbicide may not be mixed with any product containing a label prohibition against such mixing.

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

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

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LIFELINE herbicide may be applied during seed propagation to select out susceptible "segregates," i.e., canola, corn, cotton, and soybean plants that are not designated as glufosinate-resistant.

- **Canola:** LIFELINE herbicide may also be used in canola seed propagation as a foliar spray to selectively eliminate canola plants that are not designated as glufosinate-resistant and as such, can be applied to remove susceptible segregates during canola seed propagation. Breeding material not possessing the trait will be severely injured or killed if treated with this herbicide. See **Application Instructions and Crop Use Directions on Canola** for use rates and application timing.
- **Corn:** Inbred lines (plants not designated as glufosinate-resistant) 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 glufosinate-resistant corn "segregates", apply LIFELINE herbicide at 22 fl oz/A (0.40 lbs ai/A) plus AMS at 3 lb/A (17 lb/100 gallons) when corn is in the V-3 to V-4 stage of growth, i.e., 3 to 4 developed collars. Make a second treatment of 22 fl oz/A (0.40 lbs ai/A) plus AMS at 3 lbs/A when the corn is in the V-6 to V-7 stage of growth or up to 24" tall. Make sequential applications 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:** use LIFELINE herbicide in cotton seed propagation as a foliar spray to selectively eliminate cotton plants that are not designated as glufosinate-resistant, removing susceptible segregates during cotton seed propagation. Breeding material not possessing this trait will be severely injured or killed if treated with this herbicide. See **Application Instructions and Crop Use Directions on Cotton** for use rates and application timing.

- **Soybeans:** For the selection of glufosinate-resistant soybean “segregates”, apply LIFELINE herbicide at up to 22 to 43 fl oz/A (0.40 – 0.79 lbs ai/A) when soybean is in the third trifoliolate stage. Make a second treatment of 22 to 43 fl oz/A (0.40 – 0.79 lbs ai/A) up to but not including the bloom growth stage of soybean. Make sequential applications at least 5 days apart.

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## FALLOW FIELDS OR POST HARVEST

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LIFELINE herbicide may be used as a substitute for tillage in fallow fields to control or suppress weeds listed in the **Weed Control Table** section of this label. Applications may be made in fallow fields, post-harvest, before planting or emergence of any crop listed on this label.

Apply LIFELINE herbicide at 22 - 29 fl oz/A (0.40 – 0.53 lbs ai/A) to fallow fields to control specific weeds. LIFELINE herbicide must be applied with ammonium sulfate. Tank mixes with 2,4-D, glyphosate or atrazine and LIFELINE herbicide will enhance total weed control. Always follow the precautions and directions of use of the most restrictive label of products used in tank mix combinations. See the **Application and Mixing Procedures** section of this label for additional information on how to apply this product. See the **Product Information** section of this label for rotational crop restrictions.

### Restrictions

- **DO NOT** apply more than 29 fl oz/A (0.53 lbs ai)/A in a single application.
- **DO NOT** make more than 3 applications per year at a minimum retreatment interval of 14 days.
- **DO NOT** apply more than 87 fl oz (1.59 lb ai)/A per year.

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## FARMSTEAD AREAS

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When applied as listed, LIFELINE herbicide controls undesirable plant vegetation in non-crop areas listed under the header “WHERE TO APPLY”. Refer to **Weeds Controlled Tables** for list of weeds controlled.

Apply as a spot or directed spray treatment application depending on the situation to control weeds. Regrowth may occur due to the weed stage of growth at application, low use rate, or environmental conditions. Repeat applications may be necessary to control plants generating from underground part or seed.

Apply 48 – 82 fl oz (0.88 – 1.50 lbs ai)/A per application.

See the **Application and Mixing Procedures** section of this label for additional information on how to apply this product. See the **Product Information** section of this label for rotational crop restrictions.

### Restrictions

- **DO NOT** apply more than 82 fl oz (1.50 lbs ai)/A in a single application.
- **DO NOT** make more than 3 applications per year at a minimum retreatment interval of 14 days.
- **DO NOT** apply more than 246 fl oz (4.5 lb ai)/A per year.

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## NONCROP USES

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

This product is non-selective and will injure or kill all green vegetation contacted by the spray. Avoid all contact with foliage or green tissue of desirable vegetation. Avoid direct spray or drift onto green, thin, or uncalloused bark of desirable vegetation or plant injury may result. If desirable vegetation is contacted, rinse with sprayed portion with water immediately.

## WHERE TO APPLY

LIFELINE Herbicide may be used on the following military, private, and public lands:

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

\*Not for use in California

### Conservation Reserve Program (CRP)

Not for use in California. LIFELINE Herbicide may be used to suppress competitive growth and seed production of undesirable vegetation when rotating out of CRP acres. Apply 48 to 56 fl oz (0.88 to 1.0 lb ai) per acre of LIFELINE Herbicide in early spring, before CRP grasses break dormancy, for selective applications with broadcast spray



equipment. After desirable perennial grasses have reached dormancy, late fall applications may be made. Some stunting of CRP perennial grasses may occur if applications are made when plants are not dormant.

### **Trimming and Edging**

LIFELINE Herbicide may be used for trimming and edging areas listed under the header "WHERE TO APPLY". For control of weeds emerging from seed, the use of LIFELINE Herbicide in a tank mix with pre-emergence herbicides is advised. If spraying in areas adjacent to desirable plants, use a shield made of cardboard, plywood, or sheet metal while spraying to help prevent spray from contacting foliage of desirable plants.

### **Public and Recreational Areas**

When applied as a spot or directed spray application, this product controls annual and perennial weeds listed on this label, in areas listed under the header "WHERE TO APPLY".

### **Dormant Bermudagrass**

LIFELINE Herbicide may be used to control winter annual weeds in well-established ornamental dormant hybrid or common Bermudagrass. **Apply only when the turf is fully dormant and weather is cool, and prior to spring green-up or severe turfgrass injury or delayed green-up may occur.** For best results, apply LIFELINE Herbicide at a rate of 56 – 82 fl oz (1.0 – 1.5 lbs. ai) per acre after most weeds have germinated and are in an early growth stage. Applications of LIFELINE Herbicide may also be used to suppress or control target biennial or perennial weeds. Avoid high volume and spot applications where spray volume exceeds 80 gallons per acre or injury or delayed green-up may occur.

### **Restrictions for Dormant Bermudagrass**

- **DO NOT** apply more than 82 fl oz (1.5 lbs. ai)/A in a single application
- **DO NOT** apply more than 82 fl oz (1.5 lbs. ai) per acre per year for this use.
- **DO NOT** make more than one application per year.

### **Ornamentals and Christmas Trees**

When applied as advised by this label, this product may be used for the control of undesired vegetation in site preparation prior to planting, around and within shade and greenhouses, and as a directed spray around containers and field-grown established ornamentals and Christmas trees.

#### Ornamental and Christmas Tree Restrictions

- **DO NOT** apply directly to or allow drift to contact desirable green tissue or green, thin, or uncalloused bark of desirable vegetation or injury may result.
- **DO NOT** apply LIFELINE Herbicide as an over-the-top broadcast spray in ornamentals and shade or Christmas trees.

For pre-plant site preparation applications for control of annual and perennial weeds listed on this label, in ornamental and Christmas tree plantings, ornamental and Christmas trees may be planted into the treated area after the restricted entry interval (REI) of 12 hours has elapsed.

LIFELINE Herbicide may be used between and around containers and in site preparation for new plantings, and to control in-row weeds in field-grown wood plants. Apply LIFELINE Herbicide as a directed spray.

**For greenhouse and shade house applications where LIFELINE Herbicide is used to control weeds, air circulation fans must be turned off during application. Apply LIFELINE Herbicide as a directed spray, using large droplet and low-pressure type nozzles. Avoid drift and direct contact with desirable vegetation.**

#### Greenhouse and Shadehouse Restrictions

- **DO NOT** use in greenhouses or shade houses containing edible crops.

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

Prior to planting conifer and hardwood species, LIFELINE Herbicide can be used as a site preparation treatment.

- **DO NOT** apply LIFELINE Herbicide as an over-the-top broadcast spray to desirable conifer or hardwood plantings.

- Restricted Entry Interval (REI) for seedling conifer and hardwood treats to be planted into the treated area: 12 hours.

## WHEN TO APPLY

LIFELINE Herbicide is a foliar-active material and works best when weeds are actively growing. Weed control may be reduced when applications are made to weeds under stress due to drought or cool temperatures.

Weeds under stress or in dense populations will require application of the highest rate indicated. Always apply at the labeled rate. Repeat applications or tank mixes of LIFELINE Herbicide plus one or more appropriate residual herbicides will be needed to control weeds emerging from underground parts or seeds. When tank mixing with other herbicides, follow the label with the most restrictive directions for use and precautions. No label dosage rates may be exceeded.

Regrowth may occur due to the weed stage of growth at application, low use rate, or environmental conditions. Repeat treatments may be necessary to control weeds generating from underground parts or seeds.

## APPLICATION DIRECTIONS

Applications may be made as a broadcast, banded or spot treatment basis depending on the situation.

Application Method	Use Rate	Directions	Restrictions
Spot or Directed Applications	1 to 2 fl oz (0.02 to 0.04 lbs ai) Per gallon of water	Use rate depends on weed species being controlled. Spray undesirable vegetation foliage on a spray-to-wet basis. Ensure uniform and complete coverage. Use a coarse spray. Backpack, pump-up, and hydraulic sprayers may be used. Thoroughly clean the sprayer following use.	<b>DO NOT</b> apply beyond runoff. <b>DO NOT</b> spray during windy conditions. <b>DO NOT</b> exceed single maximum and yearly maximum broadcast use rates.
Broadcast or Boom Applications	48 – 72 fl oz (0.88 to 1.32 lbs ai) per Acre in a minimum of 40 gallons of water	Use rate depends on weed species being controlled. Use 30-psi spray pressure minimum. For smaller weeds 3 inches or less, use the lower rate. For weeds 6 inches or less use the upper end of the rate range.	<b>DO NOT</b> apply more than 72 fl oz (1.32 lb ai)/A in any single application. <b>DO NOT</b> apply more than once per year. <b>DO NOT</b> apply more than 72 fl oz (1.32 lb ai)/A in a single year.
Aerial Applications	48 – 72 fl oz (0.88 to 1.32 lbs ai) per Acre in a minimum of 5 gallons of water	Use rate depends on weed species being controlled. For smaller weeds 3 inches or less, use the lower rate. For weeds 6 inches or less use the upper end of the rate range. See <b>Drift Advisory</b> Section.  Drift control additives may be used. If a drift control additive is used, observe and follow all directions and precautions as specified on the additive label.	<b>DO NOT</b> apply more than 72 fl oz (1.32 lb ai)/A in any single application. <b>DO NOT</b> apply more than once per year. <b>DO NOT</b> apply more than 72 fl oz (1.32 lb ai)/A in a single year.

## WEEDS CONTROLLED

BRUSH* CONTROLLED OR SUPPRESSED			Directions and Restrictions
Blackberry	Maple	Salmonberry	LIFELINE Herbicide will provide control or suppression of these listed perennial wood weed species when applied as directed. Apply 32 to 96 fl oz(0.59 to 1.76 lbs ai) per acre. When conditions are not optimum for good spray penetration, use the higher directed use rate. <b>DONOT</b> exceed 1.9 gallons (4.5 lbs ai) per acre per year.
Deer brush	Multiflora rose	Sweetgum	
Douglas fir	Oak	Sumac	
Gallberry	Poison ivy/oak	Thimbleberry	
Hazel	Pine	Trumpetcreeper	
Honeysuckle	Roundleaf	Vine Maple	
Huckleberry	Greenbrier	Western Red Cedar	

\*Not for use in California

BROADLEAF WEEDS		Spot Application	Broadcast Application
Chickweed	London rocket	Apply 1 – 2 fl oz (0.02 – 0.04 lb ai)/ gallon of water	Apply 48 – 72 fl oz (0.88 – 1.32 lb ai)/A
Clover	Malva (little mallow)		
Common cocklebur	Marestail		
Filaree	Purslane		
Jimsonweed	Shepherdspurse		
Kochia	Smartweed		
GRASSES AND SEDGES		Spot Application	Broadcast Application
Barnyardgrass	Lovegrass	Apply 1 – 2 fl oz (0.02 – 0.04 lb ai)/ gallon of water	Apply 48 – 72 fl oz (0.88 – 1.32 lb ai)
Cupgrass	Shattercane		
Fall panicum	Smallflower Alexandergrass (Signalgrass)		
Giant foxtail	Stinkgrass		
Goosegrass	Windgrass		
Green foxtail	Yellow foxtail		
Johnsongrass (rhizome)			

BROADLEAF WEEDS		Spot Application	Broadcast Application
Annual sowthistle	Pennycress	Apply 1 - 2 fl oz (0.02 – 0.04 lb ai)/ gallon of water	Apply 48 – 72 fl oz (0.88 – 1.32 lb ai)/A
Bindweed	Pigweed, redroot		
Buffalobur	Plantain		
Burdock	Prickly lettuce		
Canada thistle	Ragweed		
Curly dock	Russian thistle		
Dandelion	Tansy mustard		
Dogbane (hemp)	Velvetleaf		

Field gromwell	Vervain		
Fleabane	Virginia copperleaf		
Goldenrod	White heath aster		
Horsetail	Wild buckwheat		
Lambsquarters	Wild mustard		
Leafy spurge	Wild onion		
Mugwort	Wild rose		
Must thistle	Wild turnip		
Nettle	Woodsorrel		
Nightshade	Yellow rocket		
<b>GRASSES AND SEDGES</b>		<b>Spot Application</b>	<b>Broadcast Application</b>
Annual bluegrass	Nutsedge	Apply 1.0 - 2 fl oz (0.02 – 0.04 lb ai)/gallon of water	Apply 48 – 72 fl oz (0.88 – 1.32 lb ai)/A
Bahiagrass	Paragrass		
Barley	Quackgrass		
Bermudagrass	Ryegrass		
Carpetgrass	Sandbur		
Crabgrass	Smooth bromegrass		
Dallisgrass	Torpedograss		
Downy bromegrass	Vaseygrass		
Fescue	Wheat		
Guineagrass	Wild oat		
Kentucky bluegrass			

### Use Notes

1. Use higher rates within the specified rate range for weed sized listen when vegetation cover is sense or when weeds are growing under stressed conditions including drought or when average temperatures are below 50°F.
2. The addition of 8.5 to 17 pounds of ammonium sulfate (spray grade) per 100 gallons of water (1 to 2% by weight) or 2 to 4 pounds of ammonium sulfate per acre may improve the level of weed control.

### MIXING INSTRUCTIONS

LIFELINE Herbicide must be mixed with water to make a finished spray solution. Fill the spray tank 1/2 to 3/4 full with water, start agitation, add the appropriate amount of LIFELINE Herbicide then add remaining water to fill tank. Mix thoroughly.

### RESTRICTIONS

- **DO NOT** apply this product through an irrigation system.
- **DO NOT** apply directly to or allow drift to contact desirable green tissue or green, thin, or uncalloused bark of desirable vegetation.
- **DO NOT** allow grazing of vegetation treated with LIFELINE Herbicide.

### PRECAUTIONS

LIFELINE Herbicide is rainfast in a minimum of one-half hour and an average of 4 hours after application depending upon weed species, environmental conditions, and herbicide application rate.

Plants may be safely planted into LIFELINE Herbicide treated areas after spray has dried.

## TANKMIXING

LIFELINE Herbicide is compatible in tank mixes with many other herbicides. When tank mixing LIFELINE Herbicide with other herbicides, follow the label with the most restrictive directions for use and precautions. No label dosage rates may be exceeded. 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.

A compatibility test must be conducted with any potential tank mix partner. Using a clear glass quart jar, conduct the test as described below:

1. Fill the jar three-quarters full with water.
2. Add the appropriate amount of herbicide in the following order: (a) dry flowable, (b) wettable powder, (c) aqueous suspensions, (d) flowables, (e) liquids and (f) solutions and emulsifiable or liquid concentrates. Shake or gently stir jar after each addition to thoroughly mix.
3. After adding all ingredients, let the mixture stand for 15 minutes and then look for separation, large flakes, precipitates, gels, and heavy oily film on the jar or other signs of incompatibility.
4. If the compatibility test shows signs of incompatibility, **DO NOT** tank mix the product tested with LIFELINE Herbicide.

## 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 must not exceed 125°F. If storage temperature for bulk LIFELINE herbicide is below 32°F, the material must not be pumped until its temperature exceeds 32° 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:

***[Rigid, Non-refillable plastic containers small enough to shake (i.e., with capacities equal to or less than 5gallons)]***

Non-refillable container. **DO NOT** reuse or refill this container. Triple rinse container 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. Once container is rinsed, then offer for recycling if available or reconditioning if appropriate; or puncture and dispose of in a sanitary landfill, or by incineration; or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

***[Rigid, Non-refillable plastic containers (i.e., with capacities greater than 5 gallons)] triple rinse [or pressure rinse] as follows:***

Triple rinse: 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 back 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 and disposal. Repeat this procedure two more times. Then offer for recycling or reconditioning if available, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities. **DO NOT** cut or weld metal containers. Pressure rinse: 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 flow begins to drip. Then offer for recycling if available, or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures allowed by state and local authorities.

***[All refillable plastic container types (containers with capacities greater than 50 lbs)]***

Refillable container. Refill this container with pesticide only. **DO NOT** reuse this container for any other purpose. Cleaning before refilling is the responsibility of the refiller. This is a sealed returnable container to be used only for LIFELINE herbicide. When this container is empty, it must not be opened, cleaned, or discarded. Empty containers must be returned to the original purchase location.

***[Bottom discharge Intermediate Bulk Plastic Container (IBC) (containers with capacities greater than 50 lbs)]***

Refillable container. Refill this container with pesticide only. **DO NOT** reuse this container for any other purpose. Cleaning before refilling is the responsibility of the refiller. Pressure rinsing the container before final disposal is the responsibility of the person disposing of the container. Empty the remaining contents from the Intermediate Bulk container (IBC) into application equipment or mix tank. Raise the bottom of the IBC by 1.5 inch on the side which is opposite of the bottom discharge valve to promote more complete product removal. Completely remove the top lid of the IBC. Use water pressurized to at least 40 PSI to rinse all interior portions. Continuously pump or drain rinsate into application equipment or rinsate collection system while pressure rinsing. Continue pressure rinsing for 2 minutes or until rinsate becomes clear. Replace the lid and close bottom valve. Contact your Ag retailer for container return, disposal, and recycling recommendations.

**SEED DISPOSAL:** To dispose of out-of-date or otherwise unmarketable seed from plants, which have been treated with LIFELINE herbicide, 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.

**IMPORTANT INFORMATION  
READ BEFORE USING PRODUCT**

**CONDITIONS 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 reflect the opinion of experts based on field use and tests, and must be followed carefully. It is impossible to eliminate all risks associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as manner of use or application, weather or crop conditions, presence of other materials or other influencing factors in the use of the product, which are beyond the control of UPL NA INC. or Seller. Handling, storage, and use of the product by Buyer or User are beyond the control of UPL NA INC. and 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 UPL NA INC. and Seller harmless for any claims relating to such factors.

**TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, UPL NA INC. AND SELLER MAKE NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS STATED ON THIS LABEL.**

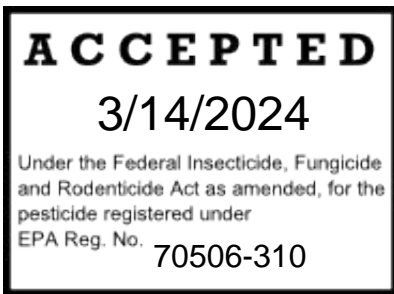
To the extent consistent with applicable law, UPL NA INC. or Seller shall not be liable for any incidental, consequential or special damages resulting from the use or handling of this product and **THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF UPL NA INC. AND SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT OR, AT THE ELECTION OF UPL NA INC. OR SELLER, THE REPLACEMENT OF THE PRODUCT.**

UPL NA INC. and Seller offer this product, and Buyer and User accept it, subject to the foregoing conditions of sale and limitations of warranty and of liability, which may not be modified except by written agreement signed by the duly authorized representative of UPL NA INC.

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Lifeline Herbicide (PENDING) Submitted 02/15/2023, Resubmitted 02/22/24, Resubmitted 03/11/24



# SUPPLEMENTAL LABEL

## LIFELINE<sup>®</sup> herbicide

(EPA Reg. No. 70506-310)

### DIRECTIONS FOR USE ON GOLD OF PLEASURE (CAMELINA)

This Supplemental Label contains new or supplemental instructions for use of this product which do not appear on the package label. Follow the instructions carefully. This label must be in the possession of the user at the time of pesticide application.

This supplemental label expires 03/15/2027 and must not be used or distributed after this date.

**ACTIVE INGREDIENT:**

Glufosinate-ammonium (CAS No. 77182-82-2).....24.5%\*

**OTHER INGREDIENTS:** ..... 75.5%

**TOTAL**..... 100.0%

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

### KEEP OUT OF REACH OF CHILDREN

### CAUTION

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

### PRECAUTIONARY STATEMENTS

**HAZARDS TO HUMANS AND DOMESTIC ANIMALS**

**CAUTION.** Harmful if absorbed through skin. Avoid contact with skin, eyes, or clothing.

### DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.  
Follow all applicable directions, restrictions and precautions on the federally-registered label.

### WEEDS CONTROLLED

The following weeds controlled charts are outlined by crop or crop group.

Volunteer glufosinate-resistant crop plants (i.e. corn, cotton, soybeans) from the previous season will not be controlled by applications of LIFELINE herbicide.

**WEEDS CONTROLLED TABLE – ROW CROPS**

Broadleaf Weeds Controlled (including glyphosate, triazine, PPO, ALS, HPPD and auxin-resistant biotypes)					
Weed Species	22-29 fl oz/A (0.40-0.53 lbs ai/A)	29-43 fl oz/A (0.40-0.79 lbs ai/A) *	Weed Species	22-29 fl oz/A (0.40-0.53 lbs ai/A)	29-43 fl oz/A (0.40-0.79 lbs ai/A) *
Amaranth, Palmer <sup>4</sup>	Not Advised	C	Morningglory, sharppod	C	C



**Broadleaf Weeds Controlled (including glyphosate, triazine, PPO, ALS, HPPD  
and auxin-resistant biotypes)**

<b>Weed Species</b>	<b>22-29 fl oz/A (0.40-0.53 lbs ai/A)</b>	<b>29-43 fl oz/A (0.40-0.79 lbs ai/A) *</b>	<b>Weed Species</b>	<b>22-29 fl oz/A (0.40-0.53 lbs ai/A)</b>	<b>29-43 fl oz/A (0.40-0.79 lbs ai/A) *</b>
Anoda, spurred	C	C	Morningglory, smallflower	C	C
Beggarweed, Florida	C	C	Morningglory, tall	C	C
Black medic	C	C	Mustard, wild	C	C
Blueweed, Texas	C	C	Nightshade, black	C	C
Buckwheat, wild	C	C	Nightshade, eastern black	C	C
Buffalobur	C	C	Nightshade, hairy	C	C
Burcucumber	C	C	Pennycress (stinkweed)	C	C
Catchweed bedstraw (cleavers)	C	C	Pigweed, redroot	C	C
Carpetweed	C	C	Pigweed, prostrate	C	C
Chickweed, common	C	C	Pigweed, spiny	C	C
Cocklebur, common	C	C	Pigweed, smooth	C	C
Copperleaf, hophornbeam	C	C	Pigweed, tumble	C	C
Cotton, volunteer <sup>1</sup>	C	C	Puncturevine	C	C
Croton, tropic	C	C	Purslane, common	C	C
Croton, woolly	C	C	Pusley, Florida	Suppression	C
Eclipta	C	C	Ragweed, common	C	C
Devil's claw	C	C	Ragweed, giant	C	C
Fleabane, annual	C	C	Senna coffee	C	C
Galinsoga, hairy	C	C	Sesbania, hemp	C	C
Galinsoga, small flower	C	C	Shepherd's-Purse	C	C
Groundcherry, cutleaf	C	C	Sicklepod (java bean)	C	C
Geranium, cutleaf	C	C	Sida, prickly	C	C
Hempnettle	C	C	Smartweed, Pennsylvania	C	C
Horsenettle, Carolina <sup>2</sup>	C	C	Smellmelon	C	C
Jimsonweed	C	C	Sowthistle, annual	C	C
Knotweed	C	C	Soybeans, volunteer <sup>1</sup>	C	C
Kochia	C	C	Spurge, prostrate	C	C
Ladysthumb	C	C	Spurge, spotted	C	C
Lambsquarters, common <sup>S</sup>	Suppression	C	Starbur, bristly	C	C
Mallow, common	C	C	Sunflower, common	C	C
Mallow, Venice	C	C	Sunflower, prairie	C	C
Marestail	Suppression	C	Sunflower, volunteer	C	C
Marshelder, annual	C	C	Thistle, Russian <sup>2</sup>	Suppression	C
Morningglory, entireleaf	C	C	Velvetleaf <sup>3</sup>	C	C

<b>Broadleaf Weeds Controlled (including glyphosate, triazine, PPO, ALS, HPPD and auxin-resistant biotypes)</b>					
<b>Weed Species</b>	<b>22-29 fl oz/A (0.40-0.53 lbs ai/A)</b>	<b>29-43 fl oz/A (0.40-0.79 lbs ai/A) *</b>	<b>Weed Species</b>	<b>22-29 fl oz/A (0.40-0.53 lbs ai/A)</b>	<b>29-43 fl oz/A (0.40-0.79 lbs ai/A) *</b>
Morningglory, ivyleaf	C	C	Waterhemp, common <sup>4</sup>	Not Advised	C
Morningglory, pitted	C	C	Waterhemp, tall <sup>4</sup>	Not Advised	C

C = Control

\* Use the higher rate when treating larger/taller weeds.

<sup>1</sup> Volunteer glufosinate-resistant crops from the previous season will not be controlled.

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

<sup>3</sup> For optimal control, make applications between dawn and 2 hours before sunset.

<sup>4</sup> For optimal control, make applications when weeds are on the smaller size.

<b>Grass Weeds Controlled (including glyphosate, triazine, PPO, ALS, HPPD and auxin-resistant biotypes)</b>					
<b>Weed Species</b>	<b>22-29 fl oz/A (0.40-0.53 lbs ai/A)</b>	<b>29-43 fl oz/A (0.53-0.79 lbs ai/A)*</b>	<b>Weed Species</b>	<b>22-29 fl oz/A (0.40-0.53 lbs ai/A)</b>	<b>29-43 fl oz/A (0.53-0.79 lbs ai/A)*</b>
Barley, volunteer <sup>3</sup>	C	C	Millet, proso volunteer	C	C
Barnyardgrass	C	C	Oat, wild <sup>2</sup>	C	C
Bluegrass, annual	C	C	Panicum, fall	C	C
Corn, volunteer <sup>1</sup>	C	C	Panicum, Texas	C	C
Crabgrass, large <sup>2</sup>	C	C	Rice, red	C	C
Crabgrass, smooth <sup>2</sup>	C	C	Rice, volunteer <sup>1</sup>	C	C
Cupgrass, woolly	C	C	Sandbur, field <sup>2</sup>	Suppression	C
Foxtail, bristly	C	C	Shattercane	C	C
Foxtail, giant	C	C	Signalgrass, broadleaf	C	C
Foxtail, green	C	C	Sprangletop	C	C
Foxtail, robust purple	C	C	Sorghum, volunteer	C	C
Foxtail, yellow <sup>2</sup>	C	C	Stinkgrass	C	C
Goosegrass <sup>3</sup>	C	C	Wheat, volunteer <sup>2</sup>	C	C
Johnsongrass, seedling	C	C	Witchgrass	C	C
Junglerice	C	C			

C = Control

\* Use the higher rate when treating larger/taller weeds.

<sup>1</sup> Volunteer glufosinate-resistant crops from the previous season will not be controlled. A timely cultivation 7 to 10 days after an application and/or retreatment 10-21 days after the first application will aid in controlling dense clumps of volunteer corn.

<sup>2</sup> For best control of yellow foxtail, field sandbur, crabgrass, and wild oats, treat prior to tiller initiation.

<sup>3</sup> A sequential application may be necessary for control.

<b>Biennial and Perennial Weed Control (including glyphosate, triazine, PPO, ALS, HPPD and auxin-resistant biotypes)</b>		
For control of the biennial and perennial weeds listed below, use tank mixes or sequential applications of LIFELINE herbicide		
<b>29-43 fl oz/A (0.53-0.79 lbs ai/A) *</b>		
Alfalfa	Clover, Alsike	Nutsedge, purple <sup>s</sup>
Artichoke, Jerusalem	Clover, red	Nutsedge, yellow <sup>s</sup>
Bermudagrass	Dandelion	Orchardgrass
Bindweed, field	Dock, smooth <sup>s</sup>	Poinsettia, wild
Bindweed, hedge	Dogbane, hemp <sup>s</sup>	Pokeweed
Bluegrass, Kentucky	Milkweed, common <sup>s</sup>	Quackgrass <sup>s</sup>
Blueweed, Texas	Johnsongrass, rhizome	Sowthistle, perennial
Bromegrass, smooth	Goldenrod, gray <sup>s</sup>	Thistle, bull
Burdock	Milkweed, honeyvine <sup>s</sup>	Thistle, Canada
Bursage, woolyleaf	Muhly, wirestem <sup>s</sup>	Timothy <sup>s</sup>
Chickweed, Mouse-ear	Nightshade, silverleaf	Wormwood, biennial

\* Use the higher rate when treating larger/taller weeds.

<sup>s</sup> Suppression

## APPLICATION AND MIXING PROCEDURES

**Uniform, thorough spray coverage is important to achieve consistent weed control.** The use of surfactants and the addition of AMS may improve weed control. Please note that addition of MSO may cause antagonism and reduce overall performance.

Refer to the **Weeds Controlled** tables or **Applications Instructions and Crop Use Directions** for application rates.

**Ground application:** Apply early when weeds are small.

Apply in a minimum of 15 gallons of water per acre. Increase to a maximum of 40 gallons of water per acre if dense weed canopy exists or as required by climatic conditions.

**Aerial Application:** Apply early when weeds are small.

Thorough coverage is necessary for best weed control. For optimal weed control, apply LIFELINE herbicide in a minimum of 10 gallons per acre.

See the **Mandatory Spray Drift Mitigation** section for additional information on proper application of LIFELINE herbicide.

**DO NOT use flood jet nozzles, controlled droplet application equipment, or air-assisted spray equipment.**

## APPLICATION INSTRUCTIONS AND CROP USE DIRECTIONS

The following tables indicate use patterns, rates, minimum spray volumes, preharvest intervals and other precautions, restrictions and comments specific to each crop. Read and follow directions carefully.

LIFELINE Herbicide is a foliar active herbicide with no soil residual activity. For best results, apply to emerged, young, actively growing weeds, targeting weeds less than 3" in height. Warm temperatures, high humidity and bright sunlight

improves the performance of LIFELINE Herbicide. Necrosis of leaves and young shoots occurs within 2 to 4 days after application under growing conditions.

Weeds that emerge after application will not be controlled. LIFELINE herbicide will have an effect on these weeds, however, speed of activity and control may be reduced.

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

When applying for control of lambsquarters and velvetleaf, make applications between dawn and 2 hours before sunset to avoid the possibility of reduced control.

The addition of ammonium sulfate at 1.5 lbs to 3.0 lbs/acre may improve weed control. Rates are dependent on tankmix partners, environmental conditions, temperatures and potential for leaf burn.

Spray volume of 15 gallons of water per acre minimum. If dense canopy, large weeds or unfavorable growing conditions are present, increase water volume to 20 gallons of water per acre.

For optimal yield, early season weed removal is important.

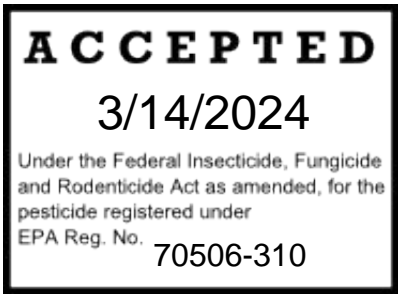
**To maximize weed control, DO NOT cultivate from 5 days before an application to 7 days after an application.**

LIFELINE herbicide is rainfast 4 hours after application; therefore rainfall within 4 hours may necessitate retreatment.

Consult your local Cooperative Extension Service for guidelines on optimum application timing for LIFELINE Herbicide in your region.

Crop	Use Pattern	Rate/Acre	Directions	Restrictions
<b>GOLD OF PLEASURE (CAMELINA)</b>	<b>Burndown</b> (Prior to Planting or Prior to Crop Emergence)	29.0 – 43.0 fl oz/A  (0.53 – 0.79 lbs ai/A)	Apply to emerged, young, actively growing weeds.  Uniform, thorough spray coverage is necessary to achieve consistent weed control.	<b>DO NOT</b> apply more than once as a burndown application.  If used as a burndown application, no In-Season applications may be applied.
	<b>In-Season</b> to Glufosinate-resistant Gold of Pleasure (Camelina) Only (Post Emergent to the Crop)	29.0 fl oz/A  (0.53 lbs ai/A)  A second In-Season application may be needed to control weeds that have not yet emerged at time of application.	<b>Post Emergent application:</b> apply from cotyledon stage up to early bolting stage.  Slight discoloration may be visible after application. This effect is temporary and will not influence crop growth, maturity, or yield.  May be applied with feed grade or spray grade ammonium sulfate (AMS)	<b>DO NOT</b> make more than 2 In-Season applications per year, and <b>DO NOT</b> apply closer than 7 days apart.  Maximum single application: burndown 43 fl oz (0.79 lbs ai)/A; In-Season 29 fl oz (0.53 lbs ai)/A.  <b>DO NOT</b> apply In-Season in states of AL, DE, GA, KY, MD, NJ, NC, SC, TN, VA, WV.  <b>DO NOT</b> apply within 65

Crop	Use Pattern	Rate/Acre	Directions	Restrictions
			<p>at 3 lbs/A.</p> <p>Additional surfactants or crop oils may increase risk of crop response.</p>	<p>days of harvest.</p> <p><b>DO NOT</b> graze the treated crop or cut for hay.</p> <p><b>DO NOT</b> apply through any type of irrigation system.</p> <p><b>DO NOT</b> apply more than 87.0 fl oz (1.59 lbs ai)/A through any combination of use patterns per year.</p> <p><b>DO NOT</b> apply more than 58 fl oz/A per year if no burndown application was used.</p>
<p>- Refer to <b>Weeds Controlled – Row Crop</b> table for proper application rate for specific weeds.</p>				



# SUPPLEMENTAL LABEL

## LIFELINE<sup>®</sup> herbicide

(EPA Reg. No. 70506-310)

### DIRECTIONS FOR USE ON HOPS

This Supplemental Label contains new or supplemental instructions for use of this product which do not appear on the package label. Follow the instructions carefully. This label must be in the possession of the user at the time of pesticide application.

This supplemental label expires 03/15/2027 and must not be used or distributed after this date.

<b>ACTIVE INGREDIENT:</b>	
Glufosinate-ammonium (CAS No. 77182-82-2).....	24.5%*
<b>OTHER INGREDIENTS:</b> .....	<u>75.5%</u>
<b>TOTAL</b> .....	100.0%

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

### KEEP OUT OF REACH OF CHILDREN

### CAUTION

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

### PRECAUTIONARY STATEMENTS

#### HAZARDS TO HUMANS AND DOMESTIC ANIMALS

**CAUTION.** Harmful if absorbed through skin. Avoid contact with skin, eyes, or clothing.

### DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.  
Follow all applicable directions, restrictions and precautions on the federally-registered label.

### WEEDS CONTROLLED

The following weeds controlled charts are outlined by crop or crop group.  
Volunteer glufosinate-resistant crop plants (i.e. corn, cotton, soybeans) from the previous season will not be controlled by applications of LIFELINE herbicide.

#### WEEDS CONTROLLED TABLE – ROW CROPS

Broadleaf Weeds Controlled (including glyphosate, triazine, PPO, ALS, HPPD and auxin-resistant biotypes)					
	22-29 fl oz/A (0.40-0.53 lbs ai/A)	29-43 fl oz/A (0.40-0.79 lbs ai/A) *		22-29 fl oz/A (0.40-0.53 lbs ai/A)	29-43 fl oz/A (0.40-0.79 lbs ai/A) *
Weed Species			Weed Species		
Amaranth, Palmer <sup>4</sup>	Not Advised	C	Morningglory, sharppod	C	C

**Broadleaf Weeds Controlled (including glyphosate, triazine, PPO, ALS, HPPD  
and auxin-resistant biotypes)**

<b>Weed Species</b>	<b>22-29 fl oz/A (0.40-0.53 lbs ai/A)</b>	<b>29-43 fl oz/A (0.40-0.79 lbs ai/A) *</b>	<b>Weed Species</b>	<b>22-29 fl oz/A (0.40-0.53 lbs ai/A)</b>	<b>29-43 fl oz/A (0.40-0.79 lbs ai/A) *</b>
Anoda, spurred	C	C	Morningglory, smallflower	C	C
Beggarweed, Florida	C	C	Morningglory, tall	C	C
Black medic	C	C	Mustard, wild	C	C
Blueweed, Texas	C	C	Nightshade, black	C	C
Buckwheat, wild	C	C	Nightshade, eastern black	C	C
Buffalobur	C	C	Nightshade, hairy	C	C
Burcucumber	C	C	Pennycress (stinkweed)	C	C
Catchweed bedstraw (cleavers)	C	C	Pigweed, redroot	C	C
Carpetweed	C	C	Pigweed, prostrate	C	C
Chickweed, common	C	C	Pigweed, spiny	C	C
Cocklebur, common	C	C	Pigweed, smooth	C	C
Copperleaf, hophornbeam	C	C	Pigweed, tumble	C	C
Cotton, volunteer <sup>1</sup>	C	C	Puncturevine	C	C
Croton, tropic	C	C	Purslane, common	C	C
Croton, woolly	C	C	Pusley, Florida	Suppression	C
Eclipta	C	C	Ragweed, common	C	C
Devil's claw	C	C	Ragweed, giant	C	C
Fleabane, annual	C	C	Senna coffee	C	C
Galinsoga, hairy	C	C	Sesbania, hemp	C	C
Galinsoga, small flower	C	C	Shepherd's-Purse	C	C
Groundcherry, cutleaf	C	C	Sicklepod (java bean)	C	C
Geranium, cutleaf	C	C	Sida, prickly	C	C
Hempnettle	C	C	Smartweed, Pennsylvania	C	C
Horsenettle, Carolina <sup>2</sup>	C	C	Smellmelon	C	C
Jimsonweed	C	C	Sowthistle, annual	C	C
Knotweed	C	C	Soybeans, volunteer <sup>1</sup>	C	C
Kochia	C	C	Spurge, prostrate	C	C
Ladysthumb	C	C	Spurge, spotted	C	C
Lambsquarters, common <sup>S</sup>	Suppression	C	Starbur, bristly	C	C
Mallow, common	C	C	Sunflower, common	C	C
Mallow, Venice	C	C	Sunflower, prairie	C	C
Marestail	Suppression	C	Sunflower, volunteer	C	C
Marshelder, annual	C	C	Thistle, Russian <sup>2</sup>	Suppression	C
Morningglory, entireleaf	C	C	Velvetleaf <sup>3</sup>	C	C

<b>Broadleaf Weeds Controlled (including glyphosate, triazine, PPO, ALS, HPPD and auxin-resistant biotypes)</b>					
<b>Weed Species</b>	<b>22-29 fl oz/A (0.40-0.53 lbs ai/A)</b>	<b>29-43 fl oz/A (0.40-0.79 lbs ai/A) *</b>	<b>Weed Species</b>	<b>22-29 fl oz/A (0.40-0.53 lbs ai/A)</b>	<b>29-43 fl oz/A (0.40-0.79 lbs ai/A) *</b>
Morningglory, ivyleaf	C	C	Waterhemp, common <sup>4</sup>	Not Advised	C
Morningglory, pitted	C	C	Waterhemp, tall <sup>4</sup>	Not Advised	C

C = Control

\* Use the higher rate when treating larger/taller weeds.

<sup>1</sup> Volunteer glufosinate-resistant crops from the previous season will not be controlled.

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

<sup>3</sup> For optimal control, make applications between dawn and 2 hours before sunset.

<sup>4</sup> For optimal control, make applications when weeds are on the smaller size.

<b>Grass Weeds Controlled (including glyphosate, triazine, PPO, ALS, HPPD and auxin-resistant biotypes)</b>					
<b>Weed Species</b>	<b>22-29 fl oz/A (0.40-0.53 lbs ai/A)</b>	<b>29-43 fl oz/A (0.53-0.79 lbs ai/A)*</b>	<b>Weed Species</b>	<b>22-29 fl oz/A (0.40-0.53 lbs ai/A)</b>	<b>29-43 fl oz/A (0.53-0.79 lbs ai/A)*</b>
Barley, volunteer <sup>3</sup>	C	C	Millet, proso volunteer	C	C
Barnyardgrass	C	C	Oat, wild <sup>2</sup>	C	C
Bluegrass, annual	C	C	Panicum, fall	C	C
Corn, volunteer <sup>1</sup>	C	C	Panicum, Texas	C	C
Crabgrass, large <sup>2</sup>	C	C	Rice, red	C	C
Crabgrass, smooth <sup>2</sup>	C	C	Rice, volunteer <sup>1</sup>	C	C
Cupgrass, woolly	C	C	Sandbur, field <sup>2</sup>	Suppression	C
Foxtail, bristly	C	C	Shattercane	C	C
Foxtail, giant	C	C	Signalgrass, broadleaf	C	C
Foxtail, green	C	C	Sprangletop	C	C
Foxtail, robust purple	C	C	Sorghum, volunteer	C	C
Foxtail, yellow <sup>2</sup>	C	C	Stinkgrass	C	C
Goosegrass <sup>3</sup>	C	C	Wheat, volunteer <sup>2</sup>	C	C
Johnsongrass, seedling	C	C	Witchgrass	C	C
Junglerice	C	C			

C = Control

\* Use the higher rate when treating larger/taller weeds.

<sup>1</sup> Volunteer glufosinate-resistant crops from the previous season will not be controlled. A timely cultivation 7 to 10 days after an application and/or retreatment 10-21 days after the first application will aid in controlling dense clumps of volunteer corn.



<sup>2</sup> For best control of yellow foxtail, field sandbur, crabgrass, and wild oats, treat prior to tiller initiation.

<sup>3</sup> A sequential application may be necessary for control.

<b>Biennial and Perennial Weed Control (including glyphosate, triazine, PPO, ALS, HPPD and auxin-resistant biotypes)</b>		
For control of the biennial and perennial weeds listed below, use tank mixes or sequential applications of LIFELINE herbicide		
<b>29-43 fl oz/A (0.53-0.79 lbs ai/A) *</b>		
Alfalfa	Clover, Alsike	Nutsedge, purple <sup>s</sup>
Artichoke, Jerusalem	Clover, red	Nutsedge, yellow <sup>s</sup>
Bermudagrass	Dandelion	Orchardgrass
Bindweed, field	Dock, smooth <sup>s</sup>	Poinsettia, wild
Bindweed, hedge	Dogbane, hemp <sup>s</sup>	Pokeweed
Bluegrass, Kentucky	Milkweed, common <sup>s</sup>	Quackgrass <sup>s</sup>
Blueweed, Texas	Johnsongrass, rhizome	Sowthistle, perennial
Bromegrass, smooth	Goldenrod, gray <sup>s</sup>	Thistle, bull
Burdock	Milkweed, honeyvine <sup>s</sup>	Thistle, Canada
Bursage, woolyleaf	Muhly, wirestem <sup>s</sup>	Timothy <sup>s</sup>
Chickweed, Mouse-ear	Nightshade, silverleaf	Wormwood, biennial

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<sup>s</sup> Suppression

## APPLICATION AND MIXING PROCEDURES

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Refer to the **Weeds Controlled** tables or **Applications Instructions and Crop Use Directions** for application rates.

**Ground application:** Apply early when weeds are small.

Apply in a minimum of 15 gallons of water per acre. Increase to a maximum of 40 gallons of water per acre if dense weed canopy exists or as required by climatic conditions.

**Aerial Application:** Apply early when weeds are small.

Thorough coverage is necessary for best weed control. For optimal weed control, apply LIFELINE herbicide in a minimum of 10 gallons per acre.

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

When applying for control of lambsquarters and velvetleaf, make applications between dawn and 2 hours before sunset to avoid the possibility of reduced control.

The addition of ammonium sulfate at 1.5 lbs to 3.0 lbs/acre may improve weed control. Rates are dependent on tankmix partners, environmental conditions, temperatures and potential for leaf burn.

Spray volume of 15 gallons of water per acre minimum. If dense canopy, large weeds or unfavorable growing conditions are present, increase water volume to 20 gallons of water per acre.

For optimal yield, early season weed removal is important.

**To maximize weed control, DO NOT cultivate from 5 days before an application to 7 days after an application.**

LIFELINE herbicide is rainfast 4 hours after application; therefore rainfall within 4 hours may necessitate retreatment.

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Crop	Use Pattern	Rate/Acre	Directions	Restrictions
<b>HOPS</b>	<p><b>Burndown</b> (14 days Prior to Planting)</p> <p>Broadcast</p>	<p><b>Weeds &lt; 3" in height</b> 32 fl oz/A (0.59 lbs ai/A)</p> <p><b>Weeds &lt; 6" in Height and grasses that have tillered</b> 55 fl oz/A (1.00 lbs ai/A)</p>	<p>Only trunks with callused, mature brown bark may be sprayed unless protected from spray contact by nonporous wraps, grow tubes, or waxed containers.</p> <p>Avoid direct spray, drift or mist to green bark, stems, foliage, or fruit as injury may occur</p>	<p><b>DO NOT</b> apply hops that are less than 6 feet tall, and then only apply to the lower 18 inches of hops plants that are over 6 feet tall.</p> <p><b>DO NOT</b> apply to hop suckers prior to training hops on the string/wire and before hop height is 6 feet tall on string/wire.</p> <p><b>DO NOT</b> use this product to burn back existing vines to obtain even emergence of subsequent vines.</p> <p><b>DO NOT</b> apply more than 55 fl ozs/A (1.00 lb ai/A of glufosinate) in a single application.</p> <p><b>DO NOT</b> apply more than a maximum cumulative amount of 165 fl ozs/A (3.00 lbs ai/A of glufosinate) from sequential applications in hops per year.</p> <p>Maximum number of applications per year: 3</p> <p>Separate sequential applications by at least 25 days.</p> <p><b>DO NOT</b> apply this product aerially to hops.</p>