GROUP 10 HERBICIDE

LIFELINE™

HERBICIDE

STATE OF HAWAII
Department of Agriculture
ACCEPTED
LICENSE NO.
8026.83

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.

EPA Reg. No. 70506-310 **EPA Est. No. 70815-GA-002**

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.)

FIRST AID	
IF ON SKIN OR CLOTHING:	• Take off contaminated clothing. • Wash skin immediately with plenty of soap and water. • Get medical attention.
IF IN EYES:	• Hold eye open and rinse slowly and gently with water for 15-20 minutes. • Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. • Get medical attention if irritation develops or persists.
IF SWALLOWED:	• Rinse mouth thoroughly with plenty of water. • Do not induce vomiting. • Get medical attention immediately.
Have the product container or label with you when calling a Poison Control Center or doctor or going for treatment. For emergency medical treatment, contact the Rocky Mountain Poison Control Center at 1-866-673-6671.	
NOTE TO PHYSICIAN: If this product is ingested, endotracheal intubation and gastric lavage should be performed as soon as possible, followed by charcoal and sodium sulfate administration. You may also contact the Rocky Mountain Poison Control Center 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.

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HERBICIDE

NET CONTENTS: 2.5 GALLONS

UPI

United Phosphorus, Inc. • 630 Freedom Business Center, Suite 402 • King of Prussia, PA 19406 U.S.A. • 1-800-438-6071

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)

Some materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions for category C on an EPA chemical resistance category selection chart.

Applicators and other handlers must wear:

- Long sleeved shirt and long pants, socks, shoes;
- Chemical-resistant gloves such as 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).
- Wear a chemical-resistant apron when mixing/loading and cleaning equipment.

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

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

USER SAFETY RECOMMENDATIONS

Users should:

Wash 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.

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

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

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. PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is: coveralls worn over short-sleeved shirt and short pants; chemical-resistant gloves such as barrier laminate, butyl rubber ≥ 14 mils, nitrile rubber ≥ 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).

IMPORTANT CROP SAFETY INFORMATION READ BEFORE USING THIS PRODUCT

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 should 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.

PRODUCT INFORMATION

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.

LIFELINE herbicide may also be applied for potato vine desiccation.

It is important to always follow a responsible integrated weed management program. Contact your local agronomic advisor for more specific information on integrated weed management in your area.

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, Rice, 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.

WEEDS CONTROLLED

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

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.

Weed Height in Inches	Use Rate/A
Weeds < 3" in height	48 fl oz/A (0.88 lb 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)

Broadleaf Weed Control		
Alkali sida	Jimsonweed	Pineapple weed
Ammannia purple	Knotweed	Puncturevine
Arrowhead, California	Kochia	Purslane, common
Buckwheat, wild	Lambsquarters, common[1]	Radish, wild
Buffalobur	Lettuce, miner's	Ragweed, common
Burclover, California	Lettuce, prickly	Ragweed, giant
Carpetweed	London rocket	Redmaids
Chickweed, common	Mallow, common	Shepherdspurse
Chinese thornapple	Malva (little mallow)	Smartweed, Pennsylvania
Cockebur, common	Marestail	Sowthistle, annual
Copperleaf, Virginia	Mayweed	Spurge, prostrate
Cudweed	Morningglory, entireleaf	Starthistle, yellow
Cutleaf eveningprimrose	Morningglory, ivyleaf	Sunflower, common
Dodder	Morningglory, pitted	Sunflower, prairie
Eclipta	Mullein, turkey	Sunflower, volunteer
Fiddleneck	Mustard, wild	Swinecress
Filaree	Nettle	Thistle, Russian
Filaree, redstem	Nightshade, black	Turnip, wild
Fleabane, annual	Nightshade, eastern black	Velvetleaf[1]
Goosefoot	Nightshade, hairy	Vervain
Gromwell, field	Pennycress	Vetch
Groundcherry, cutleaf	Pigweed, redroot	Virginia copperleaf
Groundsel, common		Willowherb, panicle
Henbit		

[1] For optimal control, make applications between dawn and 2 hours before sunset.

Grass Weed Control		
Barnyardgrass	Foxtail, giant	Rush, toad**
Bluegrass, annual	Foxtail, green	Ryegrass, annual[1]
Brome, ripgut	Foxtail, yellow	Sandbur, field
Bromegrass, downy	Goosegrass	Shattercane
Canarygrass	Johnsongrass, seedling	Sprangletop
Chess, soft	Junglerice	Stinkgrass
Crabgrass, large	Oat, wild	Wheat, volunteer
Crabgrass, smooth	Panicum, fall	Windgrass
Cupgrass, woolly	Panicum, Texas	Witchgrass

[1] Apply to annual ryegrass prior to 3 inches in height.
**indicates suppression

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

**indicates suppression

APPLICATION AND MIXING PROCEDURES

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

Ground Application: Refer to the **Weeds Controlled** tables or **Applications Instructions and Crop Use Directions** for application rates. DO NOT apply when winds are gusty, or when conditions favor movement of spray particles off the desired spray target. To avoid drift and ensure consistent weed control, apply LIFELINE herbicide with the spray boom as low as possible while maintaining a uniform spray pattern.

Apply LIFELINE herbicide broadcast in a minimum of 10 gallons of water per acre using a minimum spray pressure of 40 psi and a maximum ground speed of 10 mph. The use of 80 degree or 110 degree flat fan nozzles will provide optimum spray coverage and canopy penetration. Application of the spray at a 45-degree angle forward will result in better spray coverage. **Under dense weed/crop canopies, use a broadcast rate of 15 to 20 gallons of water per acre so that thorough spray coverage will be obtained.** DO NOT use raindrop nozzles. Boom height should be based on nozzle manufacturer recommendations. See the **Spray Drift Management** section of this label for additional information on proper application of LIFELINE herbicide.

Aerial Application: Thorough coverage is necessary for best weed control. **For optimal weed control, apply LIFELINE herbicide in a minimum of 10 gallons per acre.** Apply LIFELINE herbicide using nozzles and pressures that generate MEDIUM (about 300 to 400 microns) spray droplets category as reported by the nozzle manufacturer and in accordance to ASABE S 572 based upon the selected air speed. Do not use nozzles and pressures that result in COARSE sprays. Avoiding FINE sprays will minimize spray drift risk. See the **Spray Drift Management** section of this label for additional information on proper application of LIFELINE herbicide.

COMPATIBILITY TESTING

If LIFELINE herbicide will be mixed with pesticide products not listed on this label, 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 provided these other products are labeled for the timing and method of application for the crop to be treated. Use the tank mix partner in accordance with label limitations and precautions. Do not exceed label dosage rates. LIFELINE herbicide may not be mixed with any product containing a label prohibition against such mixing. Refer to the specific crop section for rates and other restrictions.

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

CLEANING INSTRUCTIONS

Before using 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. Make sure any rinsate or foam is thoroughly removed from spray tank and boom. Rinsate may be disposed following the pesticide disposal directions on this label.

SPRAY DRIFT MANAGEMENT

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

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

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

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

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

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

Where states have more stringent regulations, they must be observed. The applicator should be familiar with and take into account the information covered in the **Aerial Drift Reduction Advisory Information**.

AERIAL DRIFT REDUCTION ADVISORY INFORMATION

Information on Droplet Size: The most effective way to reduce drift potential is to apply large droplets. The best drift management strategy is to apply the largest droplets that provide sufficient coverage and control. Applying larger droplets reduces drift potential, but will not prevent drift if applications are made improperly, or under unfavorable environmental conditions (see **Wind**, **Temperature and Humidity**, and **Temperature Inversions** below). AVOIDING SPRAY DRIFT AT THE APPLICATION SITE IS THE RESPONSIBILITY OF THE APPLICATOR.

Controlling Droplet Size:

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

Swath Adjustment: When applications are made with a crosswind, the swath will be displaced downward. Therefore, on the up and downwind edges of the field, the applicator must compensate for this displacement by adjusting the path of the aircraft upwind. Swath adjustment distance should increase, with increasing drift potential (higher wind, smaller drops, etc.).

Wind: Drift potential is lowest between wind speeds of 2 - 10 mph. However, many factors, including droplet size and equipment type determine drift potential at any given speed. Avoid applications below 2 miles per hour due to variable wind direction and high inversion potential. NOTE: Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they affect spray drift.

Temperature and Humidity: When making applications in low relative humidity, set up equipment to produce larger droplets to compensate for evaporation. Droplet evaporation is most severe when conditions are both hot and dry. Avoid spraying during conditions of low humidity and/or high temperatures.

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

APPLICATION 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. 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 weeds that are larger than the recommended leaf stage, 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 may improve weed control if weeds are under stress.

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	Precautions and Comments	Restrictions
POME FRUIT (Crop Group 11) Apples, Crabapple, Loquat, Mayhaw, Quince, Pear, Oriental Pear, Azarole, Medlar, Tejocote, cultivars, varieties and/or hybrids of these	Broadcast Banded Directed Spray Spot Treatments See **Application Methods** section for additional information on Banded, Directed Spray and Spot Treatments	**Weeds < 3" in height** 48 fl oz/A (0.88 lb 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)	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 should be sprayed unless protected from spray contact by nonporous wraps, grow tubes, or waxed containers. When tankmixing with a residual herbicide no additional surfactant is needed.	Applications must be a minimum of 14 days apart. Do not make more than 3 applications through any combination of use patterns in one growing season. Do not graze, harvest and/or feed treated orchard cover crops to livestock. Do not aerially apply. Do not apply through any type of irrigation system. Do not make spot spray applications to suckers as tree injury may occur. Do not apply within 14 days of harvest. Do not apply more than 246 fl oz/A (4.5 lbs ai/A) through any combination of use patterns in one growing season.
CITRUS (Crop Group 10) 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	Broadcast Banded Directed Spray Spot Treatments See **Application Methods** section for additional information on Banded, Directed Spray and Spot Treatments	**Weeds < 3" in height** 48 fl oz/A (0.88 lb 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)	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 should be sprayed unless protected from spray contact by nonporous wraps, grow tubes, or waxed containers.	Applications must be a minimum of 14 days apart. Do not make more than 3 applications through any combination of use patterns in one growing season. Do not graze, harvest and/or feed treated orchard cover crops to livestock. Do not aerially apply. Do not apply through any type of irrigation system. Do not make spot spray applications to suckers as tree injury may occur. Do not apply within 14 days of harvest. Do not apply more than 246 fl oz/A (4.5 lbs ai/A) through any combination of use patterns in one growing season.
GRAPES AND OTHER CLIMBING VINE SMALL FRUITS (EXCEPT FUZZY KIWIFRUIT) (Crop Sub-Group 13-07F) Amur river grape; gooseberry, hardy kiwifruit, Maypop, schisandra berry, and cultivars, varieties, and/or hybrids of these	Broadcast Banded Directed Spray Spot Treatments See **Application Methods** section for additional information on Banded, Directed Spray and Spot Treatments	**Weeds < 3" in height** 48 fl oz/A (0.88 lb 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)	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 should be sprayed unless protected from spray contact by nonporous wraps, grow tubes, or waxed containers.	Do not make more than 3 applications through any combination of use patterns in one growing season. Do not aerially apply. Do not apply through any type of irrigation system. Do not make spot spray applications to suckers as tree injury may occur. Do not apply within 14 days of harvest. Do not apply more than 246 fl oz/A (4.5 lbs ai/A) through any combination of use patterns in one growing season.

Crop	Use Pattern	Rate/Acre	Precautions and Comments	Restrictions
STONE FRUIT (Crop Group 12) Apricot, Cherry (sweet, tart), Nectarine, Peach, Plum (chickasaw, damson, Japanese), Plumcot, Prune (fresh)	Broadcast Banded Directed Spray Spot Treatments See **Application Methods** section for additional information on Banded, Directed Spray and Spot Treatments	**Weeds < 3" in height** 48 fl oz/A (0.88 lb 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)	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 should be sprayed unless protected from spray contact by nonporous wraps, grow tubes, or waxed containers.	Applications must be a minimum of 28 days apart. Do not make more than 2 applications through any combination of use patterns in one growing season. Do not graze, harvest and/or feed treated orchard cover crops to livestock. Do not aerially apply. Do not apply through any type of irrigation system. Do not make spot spray applications to suckers as tree injury may occur. Do not apply within 14 days of harvest. Do not apply more than 164 fl oz/A (3.0 lbs ai/A) through any combination of use patterns in one growing season.
TREE NUTS (Crop Group 14) (including Pistachio) Almond, Beech nut, Brazil nut, Butternut, Cashew, Chestnut, Chinquapin, Filbert (hazelnut), Hickory nut, Macadamia (bush nut), Pecan, Pistachio, Walnut (black and English (Persian))	Broadcast Banded Directed Spray Spot Treatments See **Application Methods** section for additional information on Banded, Directed Spray and Spot Treatments	**Weeds < 3" in height** 48 fl oz/A (0.88 lb 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)	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 should be sprayed unless protected from spray contact by nonporous wraps, grow tubes, or waxed containers.	Do not make more than 3 applications through any combination of use patterns in one growing season. Do not graze, harvest and/or feed treated orchard cover crops to livestock. Do not aerially apply. Do not apply through any type of irrigation system. Do not make spot spray applications to suckers as tree injury may occur. Do not apply within 14 days of harvest. Do not apply more than 246 fl oz/A (4.5 lbs ai/A) through any combination of use patterns in one growing season.
BERRIES Bushberries, Blueberry, Currant, Elderberry, Gooseberry, Huckleberry, Lingonberry, Juneberry, Salal	Broadcast Banded Directed Spray Spot Treatments See **Application Methods** section for additional information on Banded, Directed Spray and Spot Treatments	**Weeds < 3" in height** 48 fl oz/A (0.88 lb 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)	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 should be sprayed unless protected from spray contact by nonporous wraps, grow tubes, or waxed containers.	Do not make more than 2 applications through any combination of use patterns in one per growing season. Do not aerially apply. Do not apply through any type of irrigation system. Do not make spot spray applications to suckers as tree injury may occur. Do not apply within 14 days of harvest. Do not apply more than 164 fl oz/A (3.0 lbs ai/A) through any combination of use patterns in one growing season.

Crop	Use Pattern	Rate/Acre	Precautions and Comments	Restrictions
OLIVES	Broadcast Banded Directed Spray Spot Treatments See **Application Methods** section for additional information on Banded, Directed Spray and Spot Treatments	**Weeds < 3" in height** 48 fl oz/A (0.88 lb 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)	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 should be sprayed unless protected from spray contact by nonporous wraps, grow tubes, or waxed containers.	Applications must be a minimum of 14 days apart. Do not make more than 3 applications through any combination of use patterns in one growing season. Do not graze, harvest and/or feed treated orchard cover crops to livestock. Do not aerially apply. Do not apply through any type of irrigation system. Do not make spot spray applications to suckers as tree injury may occur. Do not apply more than 246 fl oz/A (4.50 lbs ai/A) through any combination of use patterns in one growing season.
POTATOES	Vine Desiccation	21.0 fl oz/A (0.38 lb 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 boom as low as possible to achieve thorough coverage of the potato vines for best control and to minimize drift potential.	Do not apply to potatoes grown for seed. Do not split application or apply more than 1 application per harvest. Do not harvest potatoes until 9 days or more after application. Do not apply more than 21.0 fl oz/A (0.38 lb ai/A) per growing season.

- Canola, corn, cotton, rice, soybean and sugar beets may be planted at any time after an application of LIFELINE herbicide as a potato vine desiccant.
- 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.
- All other crops may be planted 120 or more days after an application of LIFELINE herbicide as a potato vine desiccant.

SUCKER CONTROL

When applied to suckers that are young, green, and uncallused, 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). Thorough coverage of all sucker foliage is necessary for optimum control. Suckers should not exceed 12 inches in length.

TANK MIX PARTNER INSTRUCTIONS

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 precautions. Do not exceed label dosage rates. LIFELINE herbicide may not be mixed with any product containing a label prohibition against such mixing.

Chateau	Karmex DF	Simazine 90
Collide	Princep 4L	Sinbar 80W
Devrinol DF-XT	Simazine 4L	Solicam DF
Goal 1.6E	Simazine 80W	Surflan A.S.

RESTRICTIONS

- DO NOT apply more than 246 fl oz/A (4.50 lbs ai/A) of LIFELINE herbicide in any calendar year.
- DO NOT make spot or directed spray applications to vine trunk as injury may occur.
- Avoid contact of LIFELINE herbicide solution, spray, drift or mist with green Bark, stems, or foliage as injury may occur.
- Not for use in Nassau and Suffolk Counties of New York.

APPLICATION METHODS

BANDED SPRAY APPLICATIONS – TREE, NUT, VINE 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, NUT, VINE AND BERRIES

For spot or directed spray applications by backpack sprayers only (no mechanically pressured handgun applications allowed) mix LIFELINE herbicide at 1.7 fl oz of product per gallon of water. Apply to undesirable vegetation foliage until wet but prior to runoff. Ensure uniform and complete coverage. Thoroughly clean the sprayer following use. DO NOT make spot or directed spray applications to tree or vine trunk as injury may occur.

TANK MIXTURES

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 precautions. No label dosage rates may be exceeded. LIFELINE herbicide may not be mixed with any product containing a label prohibition against such mixing.

FARMSTEADS, RECREATIONAL, AND PUBLIC AREAS

When applied as listed, LIFELINE herbicide controls undesirable plant vegetation in non-crop areas around farmstead building foundations, shelter belts, along fences, airports, commercial plants, storage and lumber yards, educational facilities, fence lines, ditch banks, dry ditches, schools, parking lots, tank farms, pumping stations, parks, other public areas and general nonselective farmstead weed control. Refer to **Weeds Controlled Table – Tree Fruit, Tree Nut, Vines, Berries, and Olives** for application broadcast and spot spray application rates and list of weeds controlled.

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.

STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage or disposal.

PESTICIDE STORAGE: Do not use or store near heat or open flame. Keep the container tightly closed and dry in a cool, well-ventilated place. Storage temperature should not exceed 125°F. If storage temperature for bulk LIFELINE herbicide is below 32°F, the material should not be pumped until its temperature exceeds 32°F. Protect against direct sunlight.

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

CONTAINER HANDLING:

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

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 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.

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 United Phosphorus, Inc. or Seller. Handling, storage, and use of the product by Buyer or User are beyond the control of United Phosphorus, 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 United Phosphorus, Inc. and Seller harmless for any claims relating to such factors.

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