

9/27/2012



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF
CHEMICAL SAFETY AND
POLLUTION PREVENTION

Ms. Karen Cain
Bayer CropScience LP
P.O. Box 12014, 2 T.W. Alexander Drive
Research Triangle Park, NC 27709

SEP 27 2012

Subject: Label Amendment to add new uses of Petition No. 9F7655 (citrus fruit crop group, pome fruit crop group, stone fruit crop group and olives) and the IR-4 Petition No. 9E7604 (sweet corn) to the herbicide product labels listed below, containing the active ingredient, Glufosinate ammonium
EPA Reg. Nos: 264-645, 264-646, 264-660, 264-829
Decision Numbers: 418436; 418439; 424392; 424394; 424395; 424397

Dear Ms. Cain:

The labeling referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), as amended, is acceptable.

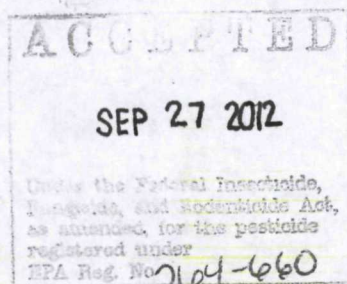
One copy of labeling for these products, stamped "Accepted," is enclosed for your records. Products released for shipment after 18 months from the date on this notice or the next printing of the label, whichever occurs first, must bear the new revised label. Amended labeling will supersede all previously accepted ones.

Per 40 CFR 156.10(6), submit one copy of your final printed labeling before you release the product for shipment. If you have questions or concerns regarding this letter, please contact Beth Benbow at (703) 347-8072 or email at benbow.bethany@epa.gov.

Sincerely,

A handwritten signature in dark ink, appearing to read "Kathryn V. Montague".

Kathryn V. Montague
Product Manager 23
Herbicide Branch
Registration Division (7505P)



GROUP

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Herbicide

Liberty[®] HERBICIDE

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

ACTIVE INGREDIENT:

Glufosinate-ammonium* 18.19%**

OTHER INGREDIENTS: 81.81%

TOTAL: 100.00%

*CAS Number 77182-82-2

**Equivalent to 1.67 pounds of active ingredient per U.S. gallon.

EPA Reg No. 264-660

EPA Est. No. 264-MI-001

EPA Est. No. 407-IA-2

KEEP OUT OF REACH OF CHILDREN WARNING - AVISO

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

For MEDICAL And TRANSPORTATION Emergencies ONLY Call 24 Hours A Day 1-800-334-7577

For PRODUCT USE Information Call 1-866-99BAYER (1-866-992-2937)

FIRST AID

If swallowed	<ul style="list-style-type: none"> Rinse mouth thoroughly with plenty of water. Do not induce vomiting. Get medical attention immediately.
If in Eyes	<ul style="list-style-type: none"> Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Get medical attention if irritation develops or persists.
If on skin or clothing	<ul style="list-style-type: none"> Take off contaminated clothing. Wash skin immediately with plenty of soap and water. Get medical attention.
If inhaled	<ul style="list-style-type: none"> Move person to fresh air. Get medical attention if breathing difficulty develops.
HOT LINE NUMBER	
Have the product container or label with you when calling a poison control center or doctor, or when going for treatment. Call 1-800-334-7577 for emergency medical treatment information.	
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. Additionally, call 1-800-334-7577 immediately for further information.

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS WARNING

May be fatal if absorbed through skin. Causes moderate eye irritation. Harmful if swallowed. Do not get in eyes, on skin, or on clothing. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash clothing before reuse.

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:

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. 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.

Engineering control statement:

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

USER SAFETY RECOMMENDATIONS

Users should:

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

ENVIRONMENTAL HAZARDS

Do not apply directly to water or to areas where surface water is present, except as allowed by the Use Directions for rice on this label. Do not apply to intertidal areas below the mean high water mark. Do not contaminate water by cleaning of equipment or disposal of equipment washwaters.

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

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

DIRECTIONS FOR USE

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

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

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

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

AGRICULTURAL USE REQUIREMENTS

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

Do not enter or allow worker entry into treated areas during the restricted entry-interval (REI) of 12 hours, with the exception of sweet corn irrigation activities, which has a 4-day REI.

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

LIBERTY[®] HERBICIDE may be applied as a **burndown treatment prior to planting or prior to emergence** of any conventional or transgenic variety of canola, sweet corn, corn, cotton, olive, rice, soybean or sugar beet.

Post emergence row crop applications of LIBERTY HERBICIDE may be made only to crops tolerant to the active ingredient in this product. Bayer CropScience does not warrant the use of this product on crops other than those designated as LibertyLink[®] to safely withstand the application of LIBERTY HERBICIDE.

The basis of selectivity of LIBERTY HERBICIDE in crops is the presence of a gene in LibertyLink crops which results in a plant that is tolerant to the active ingredient of LIBERTY HERBICIDE. Crops not containing this gene will not be tolerant to LIBERTY 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 crops tolerant to the active ingredient in this product.

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

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

PRODUCT INFORMATION

LIBERTY HERBICIDE is a water-soluble herbicide for application as a foliar spray for the control of a broad spectrum of emerged annual and perennial grass and broadleaf weeds in LibertyLink[®] canola, LibertyLink[®] corn, LibertyLink[®] cotton, and LibertyLink[®] soybean, and in trees, vines, and berries. LIBERTY HERBICIDE may be applied for potato vine desiccation. LIBERTY HERBICIDE may also be applied as a broadcast burndown application before planting or prior to emergence of any conventional or transgenic variety of canola, sweet corn, corn, cotton, olive, rice, soybean, or sugar beet.

LIBERTY HERBICIDE is only foliar-active with little or no activity in soil. Weeds that emerge after application will not be controlled. Apply LIBERTY HERBICIDE to actively growing weeds as described in the Weed Control Recommendations for Row Crops section to get maximum weed control. Uniform, thorough spray coverage is necessary to achieve consistent weed control. Necrosis of leaves and young shoots occur within 2 to 4 days after application under good growing conditions.

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

ROTATIONAL CROP RESTRICTIONS*

Rotational crop planting intervals following application of LIBERTY 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, and Sugar beets	May be planted at any time
Root and Tuber Vegetables, Leafy Vegetables, Brassica Leafy Vegetables and Small Grains (barley, buckwheat, oats, rye, teosinte, triticale, and wheat).	70 Days
All Other Crops	180 Days

*See *Application Directions for Potato Vine Desiccation* for Rotational Crop Restrictions specifically after LIBERTY HERBICIDE applications to potatoes.

Integrated Weed Management

The active ingredient in LIBERTY HERBICIDE is glufosinate-ammonium, which is a glutamine synthetase inhibitor (Group 10). Integrated weed management guidelines promote an economically viable, environmentally sustainable, and socially acceptable weed control program regardless of the herbicide(s) used. The highlights of a successful integrated weed management include:

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

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

WEED CONTROL FOR ROW CROPS

Rates in fl oz of formulated product per acre for the control of weeds at selected heights are shown in the weed control tables. In weed populations with mixed species, apply at a rate needed for the species that requires the highest rate.

Broadleaf Weed Control					
Weed Species	Maximum Weed Height or Diameter (Inches)		Weed Species	Maximum Weed Height or Diameter (Inches)	
	31 fl oz/A	41 fl oz/A ^{ab}		31 fl oz/A	41 fl oz/A ^{ab}
Amaranth, Palmer ²	NR	4	Morningglory, smallflower ²	4	6
Anoda, spurred	3	5	Morningglory, tall ²	6	8
Beggarweed, Florida	4	5	Mustard, wild	4	6
Black medic	5	7	Nightshade, black	4	6
Blueweed, Texas	5	7	Nightshade, eastern black	6	8
Buckwheat, wild	6	7	Nightshade, hairy	6	8
Buffalobur	6	7	Pennycress (stinkweed)	4	6
Burcucumber	6	10	Pigweed, redroot ²	3	4
Catchweed bedstraw (cleavers)	2	4	Pigweed, prostrate ²	3	4
Carpetweed	4	6	Pigweed, spiny ²	3	4
Chickweed, common	6	8	Pigweed, smooth ²	3	4
Cocklebur, common	6	14	Pigweed, tumble ²	3	4
Copperleaf, hophornbeam	4	6	Puncturevine	4	6
Cotton, volunteer ¹	6	8	Purslane, common	2	4
Croton, tropic	3	5	Pusley, Florida	S	3

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Broadleaf Weed Control

Weed Species	Maximum Weed Height or Diameter (Inches)		Weed Species	Maximum Weed Height or Diameter (Inches)	
	31 fl oz/A	41 fl oz/A ^{ab}		31 fl oz/A	41 fl oz/A ^{ab}
Croton, woolly	2	4	Ragweed, common	6	10
Eclipta	4	6	Ragweed, giant	6	12
Devil's claw	2	4	Senna coffee	4	6
Fleabane, annual	6	8	Sesbania, hemp	6	8
Galinsoga, hairy	6	8	Shepherd's-Purse	6	8
Galinsoga, small flower	6	7	Sicklepod (java bean)	4	6
Groundcherry, cutleaf	4	5	Sida, prickly	4	5
Geranium, cutleaf	4	6	Smartweed, Pennsylvania	6	14
Hempnettle	4	6	Smellmelon	4	6
Horsenettle, Carolina ³	2	4	Sowthistle, annual	6	8
Jimsonweed	6	10	Soybeans, volunteer ¹	6	8
Knotweed	3	5	Spurge, prostrate	2	4
Kochia ²	4	6	Spurge, spotted	2	4
Ladysthumb	6	14	Starbur, bristly	4	6
Lambsquarters, common ²	4	6	Sunflower, common	6	14
Mallow, common	4	6	Sunflower, prairie	3	5
Mallow, Venice	6	8	Sunflower, volunteer	6	10
Marestail	S	6-12	Thistle, Russian ³	S	6-12
Marshelder, annual	4	6	Velvetleaf ²	3	4
Morningglory, entireleaf ²	6	8	Waterhemp, common ²	NR	5
Morningglory, ivyleaf ²	6	8	Waterhemp, tall ²	NR	5
Morningglory, pitted ²	6	8			
Morningglory, sharppod ²	2	4			

^a In cotton, LIBERTY HERBICIDE may be applied at 41 fl oz/A three times per season.

^b Do not apply more than 31 fl oz/A of LIBERTY HERBICIDE post emergence in a single application to canola and corn.

^S Indicates suppression

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

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

³ May require sequential applications for control.

NR Not Recommended

Grass Weed Control

Weed Species	Maximum Weed Height or Diameter (Inches)		Weed Species	Maximum Weed Height or Diameter (Inches)	
	31 fl oz/A	41 fl oz/A ^{ab}		31 fl oz/A	41 fl oz/A ^{ab}
Barley, volunteer ³	3	4	Millet, wild-proso	6	7
Barnyardgrass	3	5	Millet, proso volunteer	6	7
Bluegrass, annual	3	5	Oat, wild ²	3	4
Corn, volunteer ¹	10	12	Panicum, fall	3	5
Crabgrass, large ²	3	5	Panicum, Texas	4	6
Crabgrass, smooth ²	3	5	Rice, red	4	6
Cupgrass, woolly	6	12	Rice, volunteer ¹	4	6
Foxtail, bristly	6	8	Sandbur, field ²	S	2
Foxtail, giant	6	12	Shattercane	6	8
Foxtail, green	6	12	Signalgrass, broadleaf	3	5
Foxtail, robust purple	6	8	Sprangletop	4	6
Foxtail, yellow ²	3	4	Sorghum, volunteer	6	8
Goosegrass ³	2	3	Stinkgrass	4	6
Johnsongrass, seedling	3	5	Wheat, volunteer ²	4	5

Junglerice 3 5 Witchgrass 4 6

- ^a In cotton, LIBERTY HERBICIDE may be applied at 41 fl oz/A three times per season.
^b Do not apply more than 31 fl oz/A of LIBERTY HERBICIDE post emergence in a single application to canola and corn.
 S Indicates suppression
¹ Volunteer LibertyLink crops from the previous season will not be controlled. A timely cultivation 7 to 10 days after an application and/or retreatment 10-21 days after the first application is recommended for controlling dense clumps of volunteer corn or rice.
² For best control of yellow foxtail, field sandbur, crabgrass, and wild oats, treat prior to tiller initiation.
³ A sequential application may be necessary for control.

Biennial and Perennial Weeds**

For control of the biennial and perennial weeds listed below, tank mix partners or sequential applications of LIBERTY HERBICIDE are recommended (31 fl oz/A followed by 31 fl oz/A).

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

*Suppression Only

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

APPLICATION AND MIXING PROCEDURES

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

Ground application: Refer to the *Rate Tables* for proper application rates. DO NOT apply when winds are gusty, or when conditions will favor movement of spray particles off the desired spray target. To avoid drift and insure consistent weed control, apply LIBERTY HERBICIDE with the spray boom as low as possible while maintaining a uniform spray pattern. LIBERTY HERBICIDE should be applied broadcast in a minimum of 10 gallons of water per acre using a minimum spray pressure of 40 psi and a maximum ground speed of 10 mph. The use of 80 degree or 110 degree flat fan nozzles is highly recommended for optimum spray coverage and canopy penetration. Application of the spray at a 45-degree angle forward will result in better spray coverage. **Under dense weed/crop canopies, a broadcast rate of 15-20 gallons of water per acre should be used so that thorough spray coverage will be obtained.** DO NOT use raindrop nozzles. Boom height should be based on nozzle manufacturer recommendations. See the *Spray Drift Management* section of this label for additional information on proper application of LIBERTY HERBICIDE.

Aerial Application: Poor coverage will result in reduced weed control. For optimal weed control, apply LIBERTY HERBICIDE in a minimum of 10 gallons per acre. Apply LIBERTY 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. FINE sprays should also be avoided to minimize spray drift risk. See the *Spray Drift Management* section of this label for additional information on proper application of LIBERTY HERBICIDE.

COMPATIBILITY TESTING

If LIBERTY HERBICIDE is to be mixed with pesticide products not listed on this label, test the compatibility of the intended tank mixture prior to mixing the products in the spray tank. The following procedure assumes a spray volume of 25 gallons per acre. For other spray volumes, adjust the amount of the water used accordingly. Check compatibility as follows:

1. Place 1.0 pint of water from the source that will be used to prepare the spray solution in a clear 1-quart jar.
2. For each pound of 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 LIBERTY 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. Invert 10 times to mix.
6. Let the mixture stand for 15 minutes, and evaluate the solution for uniformity and stability. Look for separation, large flakes, precipitates, gels, heavy oily film on the jar, or other signs of incompatibility. If the tank mix partners are not compatible, do not use the mixture in a spray tank.
7. After compatibility testing is complete, dispose of any pesticide wastes in accordance with the *Storage and Disposal* section of this label.

MIXING INSTRUCTIONS

Tank Mix Instructions: LIBERTY 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. The tank mix partner must be used in accordance with the label limitations and precautions. No label dosage rates may be exceeded. LIBERTY HERBICIDE cannot be mixed with any product containing a label prohibition against such mixing. Refer to the specific crop section for rates and other restrictions.

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

1. Fill the spray tank half full with water.
2. Start agitation.
3. If mixing with a flowable/wettable powder tank mix partner. Prepare a slurry of the proper amount of the product in a small amount of water. Add the slurry to the spray tank.
4. Add the appropriate amount of ammonium sulfate (AMS) to the spray tank.
5. If mixing with a liquid tank mix partner, add the liquid mix partner next.
6. Complete filling the spray tank with water.
7. Add the proper amount of LIBERTY 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 recommended on this label are added, maintain good agitation at all times until contents of the tank are sprayed. If the spray mixture is allowed to settle, thorough agitation is required to resuspend the mixture before spraying is resumed. Keep bypass line on or near bottom of tank to minimize foaming. Screen size in nozzles or line strainers must be 50 mesh or larger.

CLEANING INSTRUCTIONS

Before using LIBERTY 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. Equipment should be thoroughly rinsed using a commercial tank cleaner.

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

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

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

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 should 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. Applications should be avoided below 2 miles per hour due to variable wind direction and high inversion potential. NOTE: Local terrain can influence wind patterns. Every applicator 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 DIRECTIONS FOR BURNDOWN USE

LIBERTY HERBICIDE may be applied as a burndown treatment prior to planting or prior to emergence of any conventional or transgenic variety of canola, corn, cotton, rice, soybean or sugar beet. Apply a minimum of 41 fl oz/A of LIBERTY HERBICIDE for burndown of existing weeds just prior to planting or prior to emergence of canola, corn, cotton, rice, soybean, or sugar beets. For best results, apply to emerged, young, actively growing weeds. Warm temperatures, high humidity, and bright sunlight improve the performance of LIBERTY HERBICIDE. Weed control may be reduced when applications are made to weeds under stress due to drought or cool temperatures.

- In **cotton**, if environmental conditions prevent timely applications, a single application may be made of up to 60 fl oz/A of LIBERTY HERBICIDE. If more than 41 fl oz/A are used in any single application, the season total may not exceed 101 fl oz/A, including all application timings.
- In **soybean**, if environmental conditions prevent timely applications, a single application may be made of up to 50 fl oz/A of LIBERTY HERBICIDE. If 41-50 fl oz/A are used in a single burndown application, one additional in-season application may be made at up to 41 fl oz/A. The season total may not exceed 91 fl oz/A, including all application timings.
- In **canola, corn, rice, and sugar beets**, if environmental conditions prevent timely applications, a single application may be made of up to 50 fl oz/A of LIBERTY HERBICIDE. No additional applications of LIBERTY HERBICIDE may be made post emergence to the crop during the growing season.
- In **Rice**, following a burndown application, there must be a minimum 7-day holding period after flooding of the field.

	Burndown	In-Season Applications (LibertyLink® varieties only)	Season Max
Cotton Use Pattern 1	41 fl oz/A	2 applications at 31-41 fl oz/A*	122 fl oz/A
Cotton Use Pattern 2	42-60 fl oz/A	1 application at 31-41 fl oz/A*	101 fl oz/A
Soybean Use Pattern	41-50 fl oz/A	1 application at 31-41 fl oz/A**	91 fl oz/A
Canola, Corn, Rice, Sugar beets.	41-50 fl oz/A	None	50 fl oz/A

* LibertyLink cotton OR with hooded sprayer for non-LibertyLink varieties (see Cotton use directions)

** LibertyLink soybeans only (See Soybean use directions)

APPLICATION DIRECTIONS FOR USE ON SUGAR BEETS

THOROUGH SPRAY COVERAGE IS VERY IMPORTANT. LIBERTY HERBICIDE works best when weeds are actively growing. A cultivation may be made at least 5 days before a LIBERTY HERBICIDE application or 5 days after a LIBERTY HERBICIDE application.

APPLICATION TIMING

Applications of LIBERTY HERBICIDE on sugar beets may be made from the cotyledon stage up to the 10-leaf stage of the sugar beet. LIBERTY HERBICIDE is a foliar-active material with no soil-residual activity. For best results, apply to emerged, young actively growing weeds. Weeds that emerge after application will not be controlled. LIBERTY 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, and mist/rain are present; or when weeds are under stress due to drought, cool temperatures, or extended periods of cloudiness. LIBERTY HERBICIDE is rainfast 4 hours after application, therefore, rainfall within 4 hours may necessitate retreatment.

For best weed control and sugar beet yield, LIBERTY HERBICIDE applications should begin when weeds are up to 1 inch in height or diameter. Repeat applications should be made when newly germinated weeds again reach 1 inch in height or diameter. Refer to the *Rate Tables for Weed Control In Sugar Beets* for selection of the proper rate dependent upon the weed species present and size. A repeat application of LIBERTY HERBICIDE or a tank mix application with a residual herbicide selected from the tank mix partners listed on this label will be needed to control weeds that have not yet emerged at the time of application.

RESTRICTIONS TO THE DIRECTIONS FOR USE ON SUGAR BEETS

1. **DO NOT** apply more than 42 fl oz/A of LIBERTY HERBICIDE in one application and **DO NOT** apply more than 84 fl oz/A of LIBERTY HERBICIDE on the sugar beet crop per growing season.
2. **DO NOT** apply LIBERTY HERBICIDE within 60 days of harvesting sugar beets.

3. **DO NOT** plant rotation crops in a field treated with LIBERTY 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. Corn, soybeans, canola, and sugar beets tolerant to the active ingredient of LIBERTY HERBICIDE may be planted at any time.
4. **DO NOT** graze the treated crop or cut for hay.
5. **DO NOT** add surfactants. Anti-foams or drift control agents may be added if needed.
6. **DO NOT** apply LIBERTY HERBICIDE if sugar beets show injury from prior herbicide applications or environmental stress (drought, excessive rainfall, etc.).
7. **DO NOT** apply this product through any type of irrigation system.

RATE TABLES FOR WEED CONTROL IN SUGAR BEETS

The rate of LIBERTY HERBICIDE in fl oz (pints) of formulated product per acre to be used for the control of weeds at selected heights are shown in the following tables. In weed populations with mixed species, apply the rate needed for all species present.

Grass Weeds Controlled with LIBERTY HERBICIDE

Weed Species	Growth Stage of Weed* (Maximum Height)		Comments on Weed Growth Stage/ Application Timing/ Number of Applications
	21 fl oz/A (1.25 pt/A)	28 fl oz/A (1.75 pt/A)	
Barley, volunteer	1 - 2 leaf (2")	3 leaf (3")	Multiple applications may be required
Barnyardgrass	1 - 3 leaf (2")	4 - 5 leaf (3")	Maximum of 1 tiller
Corn, volunteer	1 - 2 leaf (3")	3 - 4 leaf (6")	---
Crabgrass, large	1 - 3 leaf (2")	4 - 5 leaf (3")	Maximum of 1 tiller
Crabgrass, smooth	1 - 3 leaf (2")	4 - 5 leaf (3")	Maximum of 1 tiller
Cupgrass, woolly	1 - 5 leaf (4")	(8")	---
Foxtail, giant	1 - 4 leaf (3")	5 - 6 leaf (4")	Maximum of 2 tillers
Foxtail, green	1 - 4 leaf (3")	5 - 6 leaf (4")	Maximum of 2 tillers
Foxtail, yellow	1 - 3 leaf (1")	4 leaf (2")	Apply prior to tillering
Millet, volunteer proso	1 - 3 leaf (2")	4 - 5 leaf (3")	Maximum of 1 tiller
Millet, wild proso	1 - 3 leaf (2")	4 - 5 leaf (3")	Maximum of 1 tiller
Oat, wild	1 - 2 leaf (2")	3 leaf (3")	Maximum of 1 tiller
Panicum, fall	1 - 3 leaf (2")	4 - 5 leaf (3")	Maximum of 1 tiller
Panicum, Texas	1 - 3 leaf (2")	4 - 5 leaf (3")	Maximum of 1 tiller
Sandbur, field	---	1 - 4 leaf (2")	Apply prior to tillering
Wheat, volunteer	1 - 2 leaf (2")	3 leaf (3")	Maximum of 1 tiller

* Apply up to 42 fl oz/A (2.63 pt/A) if weeds exceed the growth stage shown in the table.

For improved control of heavy populations or larger than recommended volunteer wheat, volunteer barley, yellow foxtail, and wild oats, LIBERTY HERBICIDE can be tank mixed with Assure® II Herbicide, Poast® Herbicide, Prism® Herbicide or Select® 2EC Herbicide.

Perennial Weeds Controlled by LIBERTY HERBICIDE

Weed Species	Growth Stage of Weed* (Maximum Height/Diameter)		Comments on Number of Applications
	21 fl oz/A (1.25 pt/A)	28 fl oz/A (1.75 pt/A)	
Quackgrass	---	1 - 3 leaf (3")	Multiple applications required
Sowthistle, perennial	---	1 - 4 leaf (3")	Multiple applications required
Thistle, Canada	---	1 - 4 leaf (3")	Multiple applications required

* Apply up to 42 fl oz/A (2.63 pt/A) if weeds exceed the growth stage shown in the table.

Broadleaf Weeds Controlled by LIBERTY HERBICIDE

Weed Species	Growth Stage of Weed* (Maximum Diameter)	
	21 fl oz/A (1.25 pt/A)	28 fl oz/A (1.75 pt/A)
Buckwheat, wild	1 - 4 leaf (2")	5 - 6 leaf (3")
Buffalobur	1 - 4 leaf (2")	5 - 6 leaf (3")
Carpetweed	---	1 - 4 leaf (2")
Chickweed, common	1 - 4 leaf (2")	5 - 6 leaf (3")
Cocklebur, common	1 - 6 leaf (3")	7 - 8 leaf (5")
Kochia	(1")	(2")
Ladysthumb	1 - 2 leaf (1")	3 - 4 leaf (3")
Lambsquarter, common	1 - 2 leaf (1")	4 - 5 leaf (3")
Mallow, Venice	1 - 4 leaf (2")	5 - 6 leaf (3")
Marshelder	1 - 2 leaf (1")	3 - 4 leaf (2")
Mustard, wild	1 - 4 leaf (2")	5 - 6 leaf (3")
Nightshade, eastern black	1 - 4 leaf (2")	5 - 6 leaf (3")
Pigweed, prostrate	(1")	(3")
Pigweed, redroot	1 - 2 leaf (1")	3 - 4 leaf (3")
Pigweed, smooth	1 - 2 leaf (1")	3 - 4 leaf (3")
Pigweed, spiny	1 - 2 leaf (1")	3 - 4 leaf (3")
Purslane, common	(1")	(2")
Ragweed, common	1 - 6 leaf (3")	7 - 8 leaf (5")
Ragweed, giant	1 - 4 leaf (2")	5 - 6 leaf (3")
Shepard's purse	1 - 4 leaf (2")	5 - 6 leaf (3")
Smartweed, Pennsylvania	1 - 2 leaf (1")	3 - 4 leaf (3")
Sowthistle, annual	1 - 4 leaf (2")	5 - 6 leaf (3")
Sunflower, common	1 - 6 leaf (3")	7 - 8 leaf (5")
Thistle, Russian	(1")	(2")
Velvetleaf	1 - 2 leaf (1")	3 - 4 leaf (3")

*Apply up to 42 fl oz/A (2.63 pt/A) if weeds exceed the growth stage shown in the table.

APPLICATION DIRECTIONS FOR USE ON CANOLA

Apply LIBERTY HERBICIDE only to canola labeled as LibertyLink. Uniform, thorough spray coverage is necessary to achieve consistent weed control.

APPLICATION RATE AND TIMING

For best results, apply to emerged, young, actively growing weeds. Warm temperatures, high humidity, and bright sunlight improve the performance of LIBERTY HERBICIDE. Weed control may be reduced when applications are made to weeds under stress due to drought or cool temperatures. For optimal yield, early season weed removal is important.

Applications of LIBERTY HERBICIDE on canola may be made from the cotyledon stage up to the early bolting stage of the canola. Slight discoloration of the canola may be visible after application. This effect is temporary and will not influence crop growth, maturity, or yield.

Apply LIBERTY HERBICIDE at 31 fl oz/A per application. A second application of LIBERTY HERBICIDE may be needed to control weeds that have not yet emerged at the time of application.

RESTRICTIONS TO THE DIRECTIONS FOR USE ON CANOLA

- **DO NOT** use on canola in the states of Alabama, Delaware, Georgia, Kentucky, Maryland, New Jersey, North Carolina, South Carolina, Tennessee, Virginia and West Virginia.
- **DO NOT** apply more than two applications of LIBERTY HERBICIDE per growing season. Sequential applications should be at least 10 days apart.
- **DO NOT** apply LIBERTY HERBICIDE within 65 days of harvesting canola.
- **DO NOT** apply more than 62 fl oz/A of LIBERTY HERBICIDE per growing season.
- If LIBERTY HERBICIDE was used in a burndown application, no post emergence applications may be applied to the crop.
- **DO NOT** graze the treated crop or cut for hay.
- **DO NOT** apply LIBERTY HERBICIDE if canola shows injury from prior herbicide applications or environmental stress (drought, excessive rainfall, etc.).
- **DO NOT** apply this product through any type of irrigation system.
- Refer to the "**Rotational Crop Restrictions**" section under the "**Information**" heading of this label for the appropriate rotational crop plant back intervals.

SPRAY ADDITIVES

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

CANOLA TANK MIX INSTRUCTIONS

LIBERTY HERBICIDE at 31 fl oz/A plus AMS may be used in tank-mix combination with certain herbicides for improved control of larger than labeled grasses. LIBERTY 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 canola to be treated. The tank mix partner must be used in accordance with the label limitations and precautions. No label dosage rates may be exceeded. LIBERTY HERBICIDE cannot be mixed with any product containing a label prohibition against such mixing. The AMS rate may be reduced to 1.5 lb/A when LIBERTY HERBICIDE is tank mixed with a reduced rate of one of the grass herbicides specified below.

TANKMIX PARTNERS FOR LIBERTY ON INVIGOR LIBERTYLINK CANOLA

Tank Mix Partner	Rate (fl oz/A)
Assure® II	4 - 5 fl oz/A
Poast®	6 - 8 fl oz/A
Select® 2EC	2 - 3 fl oz/A
Select Max™	4 - 6 fl oz/A

APPLICATION DIRECTIONS FOR USE ON SWEET CORN

APPLICATION TIMING FOR SWEET CORN:

Applications for LIBERTY HERBICIDE on sweet corn may be made from emergence until sweet corn is 24" tall or in the V-7 stage of growth, i.e., 7 developed collars, whichever comes first. Apply at a rate of 28 fl oz/A. Liberty Herbicide must be applied with ammonium sulfate (AMS) for use on sweet corn. Two applications of LIBERTY HERBICIDE can be made to sweet corn in a growing season.

RESTRICTIONS TO THE DIRECTIONS FOR USE ON SWEET CORN

- **DO NOT** apply LIBERTY HERBICIDE within 50 days of harvesting sweet corn ears and within 55 days of harvesting stover.
- **DO NOT** apply more than 56 fl oz/A of LIBERTY HERBICIDE on sweet corn per growing season.
- **DO NOT** apply more than two applications of LIBERTY HERBICIDE to the sweet corn crop. Sequential applications should be at least 10 days apart.
- If LIBERTY HERBICIDE was used in a burndown application, no post emergence applications may be applied to the crop.
- **DO NOT** use nitrogen solutions as spray carriers. A silicone-based antifoam agent may be added if needed.
- **DO NOT** apply LIBERTY HERBICIDE if corn shows injury from prior herbicide applications or environmental stress (drought, excessive rainfall, etc.).
- **DO NOT** apply this product through any type of irrigation system.
- Refer to the "*Rotational Crop Restrictions*" section under the "Information" heading of this label for the appropriate rotational crop plant back intervals.

See "Application Directions for Use on Field Corn and Silage Corn" for "Application Methods," "Mixing Instructions," and "Weed control Tables."

Tank Mix Instructions for use on Sweet Corn:

LIBERTY HERBICIDE may be tankmixed with Laudis® Herbicide, Callisto™, Atrazine, or Permit®. When using LIBERTY HERBICIDE in tankmix combinations, carefully follow the "Directions for Use" labeling of the selected partner.

APPLICATION DIRECTIONS FOR USE ON FIELD CORN AND SILAGE CORN

Apply LIBERTY HERBICIDE only to corn labeled as LibertyLink. Uniform, thorough spray coverage is necessary to achieve consistent weed control.

APPLICATION RATE AND TIMING

For best results, apply to emerged, young, actively growing weeds. Warm temperatures, high humidity, and bright sunlight improve the performance of LIBERTY HERBICIDE. Weed control may be reduced when applications are made to weeds under stress due to drought or cool temperatures. For optimal yield, early season weed removal is important.

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

Apply LIBERTY HERBICIDE at 31 fl oz/A per application. A second application of LIBERTY HERBICIDE or a tank mix application with a residual herbicide will be needed to control weeds that have not yet emerged at the time of application.

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

- **DO NOT** apply LIBERTY HERBICIDE within 60 days of harvesting corn forage and within 70 days of harvesting corn grain and corn fodder.
- **DO NOT** apply more than two applications of LIBERTY HERBICIDE to the crop. Sequential applications should be at least 10 days apart.
- **DO NOT** apply more than 62 fl oz/A of LIBERTY HERBICIDE on corn per growing season.
- If LIBERTY HERBICIDE was used in a burndown application, no post emergence applications may be applied to the crop.
- **DO NOT** use nitrogen solutions as spray carriers. A silicone-based antifoam agent may be added if needed.
- **DO NOT** apply LIBERTY HERBICIDE if corn shows injury from prior herbicide applications or environmental stress (drought, excessive rainfall, etc.).
- **DO NOT** apply this product through any type of irrigation system.
- Refer to the "*Rotational Crop Restrictions*" section under the "Information" heading of this label for the appropriate rotational crop plant back intervals.

SPRAY ADDITIVES

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

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

CORN TANK MIX INSTRUCTIONS

Certain herbicide tank mixes may aid in the performance of LIBERTY HERBICIDE. No additional surfactant is needed with any tank mix partner. LIBERTY 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 corn to be treated. The tank mix partner must be used in accordance with the label limitations and precautions. No label dosage rates may be exceeded. LIBERTY HERBICIDE cannot be mixed with any product containing a label prohibition against such mixing.

TANKMIX PARTNERS FOR LIBERTY HERBICIDE ON LIBERTY LINK CORN:

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

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

². It is recommended that these products are tankmixed at half the use rate with Liberty herbicide to reduce risk of crop response. It is recommended that these products are tank mixed at 1/2 the use rate with Liberty Herbicide to reduce risk of crop response.

CORN INSECTICIDE TANK MIX PARTNERS FOR LIBERTY HERBICIDE:

To provide weed and insect control in corn, LIBERTY HERBICIDE may be mixed with the following insecticides:

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

APPLICATION DIRECTIONS FOR USE ON COTTON

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

APPLICATION RATE AND TIMING

For best results, apply to emerged, young, actively growing weeds. Warm temperatures, high humidity, and bright sunlight improve the performance of LIBERTY HERBICIDE. Weed control may be reduced when applications are made to weeds under stress due to drought or cool temperatures. For optimal yield, early season weed removal is important.

Apply LIBERTY HERBICIDE to cotton from emergence up to the early bloom stage at 31 to 41 fl oz/A. Should environmental conditions prevent a timely herbicide application, a single application of up to 60 fl oz/A of LIBERTY HERBICIDE may be made to cotton. If more than 41 fl oz/A are used in any single application, the seasonal total may not exceed 101 fl oz/A, including all application timings. See Restrictions to the Directions for use on Cotton below for additional information.

Refer to the Weed Control Table for Row Crops section of this label for selection of the proper rate dependent upon weed species present and size. In weed populations with mixed species, select the highest rate required to control all the species. Volunteer LibertyLink crop plants (corn, rice, cotton, soybeans, sugar beets) from the previous season will not be controlled by applications of LIBERTY HERBICIDE. A repeat application of LIBERTY HERBICIDE or tank mixes with a residual herbicide will be needed to control

weeds that have not emerged at the time of application. See the Tank Mix Instructions for Use on Cotton to select suitable tank mix partners.

Use Pattern	1 st Application	2 nd Application	3 rd Application	Season Maximum
Option 1	31-41 fl oz/A	31-41 fl oz/A	31-41 fl oz/A	122 fl oz/A
Option 2	42-60 fl oz/A	31-41 fl oz/A	None	101 fl oz/A

RESTRICTIONS TO THE DIRECTIONS FOR USE ON COTTON

- **DO NOT** apply LIBERTY HERBICIDE to cotton in Florida, South of Tampa (Florida Route 60), or in Hawaii, except for test plots or breeding nurseries.
- **DO NOT** apply LIBERTY HERBICIDE within 70 days prior to cotton harvest.
- Up to three applications of LIBERTY HERBICIDE may be made to cotton per season at a maximum application rate of 41 fl oz/A. **DO NOT** apply more than 122 fl oz (including all application timings) to cotton per season under this application scenario. Sequential applications should be at least 10 days apart.
- If environmental conditions prevent timely applications resulting in large weeds or heavy infestations, a single application of LIBERTY HERBICIDE at up to 60 fl oz/A may be made to cotton. **DO NOT** apply more than 60 fl oz of LIBERTY HERBICIDE in a single application under this use scenario. If a single application greater than 41 fl oz is made, a subsequent application not to exceed 41 fl oz may be made to cotton. The seasonal total use rate under this scenario may not exceed 101 fl oz of LIBERTY HERBICIDE. Sequential applications should be at least 10 days apart.
- **DO NOT** apply this product through any type of irrigation system.
- Refer to the "Rotational Crop Restrictions" section under the "Information" heading of this label for the appropriate rotational crop plant back intervals.

APPLICATION METHODS TO LIBERTYLINK COTTON

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

APPLICATION METHODS TO NON-LIBERTYLINK COTTON

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

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

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

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

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

POST-HARVEST

LIBERTY HERBICIDE may be applied as a post-harvest burndown treatment to fields (after cotton harvest). Up to 60 fl oz/A of LIBERTY HERBICIDE may be applied in a single application to control larger weeds growing in the crop at the time of harvest. If more than 41 fl oz/A is used in a single application, the seasonal total may not exceed 101 fl oz/A, including all application timings. Refer to the *Rotational Crop Restrictions* section of this label for appropriate rotational crop information.

COTTON TANK MIX INSTRUCTIONS

Certain tank mixes may aid in the performance of LIBERTY HERBICIDE. No additional surfactant is needed with any tank mix partner. LIBERTY 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 cotton to be treated. The tank mix partner must be used in accordance with the

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label limitations and precautions. No label dosage rates may be exceeded. LIBERTY HERBICIDE cannot be mixed with any product containing a label prohibition against such mixing.

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

All Cotton Types: The following herbicides may be mixed with LIBERTY HERBICIDE for hooded-spray application to enhance weed control and/or provide residual weed control:

POSTEMERGENCE OVER-THE-TOP TANKMIX PARTNERS FOR LIBERTY ON LIBERTYLINK COTTON

Assure II (1*)	metolachlor (15)	clethodim (1)
Poast Plus (1)	Fusilade DX (1)	Select Max (1)
Fusion (1)	Staple (2)	

*Numbers in parentheses denote herbicide MOA as designated by the Weed Science Society of America.

APPLICATION DIRECTIONS FOR USE ON SOYBEANS

Apply LIBERTY HERBICIDE only to soybean designated as LibertyLink. Uniform, thorough spray coverage is necessary to achieve consistent weed control.

APPLICATION RATE AND TIMING

For best results, apply to emerged, young, actively growing weeds. Warm temperatures, high humidity, and bright sunlight improve the performance of LIBERTY HERBICIDE. Weed control may be reduced when applications are made to weeds under stress due to drought or cool temperatures. Adding ammonium sulfate with LIBERTY HERBICIDE may improve weed control if weeds are under stress. For optimal yield, early season weed removal is important.

Applications of LIBERTY HERBICIDE on soybeans may be made from emergence up to but not including the bloom growth stage.

Apply LIBERTY HERBICIDE to LibertyLink soybeans from emergence up to but not including the bloom growth stage at 31 to 41 fl oz/A. See weed chart to determine rate. Should environmental conditions prevent a timely herbicide application, a single application of up to 50 fl oz/A of LIBERTY HERBICIDE may be made to soybeans followed by one additional application at a maximum of 41 fl oz/A with a seasonal maximum of 91 fl oz/A. LIBERTY HERBICIDE may be applied alone, or in a tank mix application with a residual herbicide to control weeds that have not yet emerged at the time of application.

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

Use Pattern Rate Ranges		
1 st Application	2 nd Application	Season Maximum
31-50 fl oz/A	31-41 fl oz/A	91 fl oz/A

RESTRICTIONS TO THE DIRECTIONS FOR USE ON SOYBEANS

- **DO NOT** apply LIBERTY HERBICIDE within 70 days of harvesting soybean seed.
- **DO NOT** apply more than 91 fl oz/A of LIBERTY HERBICIDE on soybeans per growing season.
- **DO NOT** apply more than 50 fl oz/A of LIBERTY HERBICIDE in a single application.
- **DO NOT** graze the treated crop or cut for hay.
- **DO NOT** use nitrogen solutions as spray carriers. A silicone-based antifoam agent may be added if needed.
- **DO NOT** apply LIBERTY HERBICIDE if soybeans show injury from prior herbicide applications or environmental stress (drought, excessive rainfall, etc.).
- **DO NOT** apply this product through any type of irrigation system.
- Refer to the "**Rotational Crop Restrictions**" section under the "Information" heading of this label for the appropriate rotational crop plant back intervals.

- Sequential applications should be at least 5 days apart.

SOYBEAN TANK MIX INSTRUCTIONS

Certain herbicide tank mixes may complement LIBERTY HERBICIDE. No additional surfactant is needed with any tank mix partner. LIBERTY 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 soybean to be treated. The tank mix partner must be used in accordance with the label limitations and precautions. No label dosage rates may be exceeded. LIBERTY HERBICIDE cannot be mixed with any product containing a label prohibition against such mixing.

TANKMIX PARTNERS FOR LIBERTY HERBICIDE IN LIBERTYLINK SOYBEANS

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

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

LIBERTY HERBICIDE may be applied to select out susceptible "segregates," i.e., canola, corn, cotton, and soybean plants that are not tolerant to glufosinate-ammonium during seed propagation.

- **Canola:** LIBERTY HERBICIDE may also be used in canola seed propagation as a foliar spray to selectively eliminate canola plants that do not carry a gene that imparts tolerance to glufosinate-ammonium and as such, can be applied to remove susceptible segregates during canola seed propagation. Breeding material not possessing the glufosinate-ammonium tolerance gene will be severely injured or killed if treated with this herbicide. See *Application Use Directions for Use on Canola* for use rates and application timing.
- **Corn:** Inbred lines, plants not possessing glufosinate-ammonium tolerance, will be severely injured or killed if treated with this herbicide. A hooded sprayer may be used to protect plants from coming into contact with the herbicide application. For the selection of tolerant corn "segregates", LIBERTY HERBICIDE may be applied at 31 fl oz/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. A second treatment of 31 fl oz/A plus AMS at 3 lbs/A may be applied when the corn is in the V-6 to V-7 stage of growth or up to 24" tall. Sequential applications should be at least 10 days apart. When temperatures exceed 85° F, the rate of AMS can be reduced to 1.5 lbs/A (8.5 lbs/100 gallons) to reduce potential leaf burn.
- **Cotton:** LIBERTY HERBICIDE may also be used in cottonseed propagation as a foliar spray to selectively eliminate cotton plants that do not carry a gene that imparts tolerance to glufosinate-ammonium and as such, can be applied to remove susceptible segregates during cottonseed propagation. Breeding material not possessing the glufosinate-ammonium tolerance gene will be severely injured or killed if treated with this herbicide. See *Application Use Directions for Use on Cotton* for use rates and application timing.
- **Soybeans:** For the selection of tolerant soybean "segregates", LIBERTY HERBICIDE may be applied at up to 31 to 50 fl oz/A when soybean is in the third trifoliate stage. A second treatment of 31 to 41 fl oz/A may be applied up to but not including the bloom growth stage of soybean. Sequential applications should be at least 5 days apart.

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

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

REGISTERED CROPS

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

Other Berries: Lingonberry, juneberry, and Salal

Citrus: lemon, orange, grapefruit, lime, mandarin, tangerine, tangelo, calamondin, kumquat, pummelo, citron, citrus hybrids, Tangor, and cultivars, varieties and/or hybrids of these

Olives

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

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

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

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

APPLICATION RATE AND TIMING

For best results, apply to emerged, young, actively growing weeds. Warm temperatures, high humidity, and bright sunlight improve the performance of LIBERTY HERBICIDE. Weed control may be reduced when applications are made to weeds under stress due to drought or cool temperatures. Weeds under stress or in dense populations will require application at the highest specified label use rate. Stressed conditions also include prior treatments of other contact or systemic herbicides. Do not retreat these weeds with LIBERTY HERBICIDE until sufficient regrowth has occurred.

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

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

Application Methods for Broadcast Applications

Apply LIBERTY HERBICIDE at the rates listed below for broadcast applications based on weed size and stage of growth.

Weed Size and Stage	LIBERTY HERBICIDE Rate
Weeds < 3" in height	67 fl oz/A
Weeds < 6" in height pre-tiller grasses	78 fl oz/A
Weeds > 6" in height and/or grasses that have tillered	78-115 fl oz/A

Application Methods for Banded Spray Applications

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

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

Application Methods for Spot or Directed-Spray Applications

For spot or directed spray applications by backpack sprayers only (no mechanically pressured handgun applications allowed): mix LIBERTY 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.

Weeds Controlled in Tree, Vine and Berry crops

Broadleaf Weeds

Alkali sida
 Ammannia, purple
 Arrowhead, California
 Buckwheat, wild
 Buffalobur
 Burclover, California
 Carpetweed
 Chickweed, common
 Chinese thornapple
 Cocklebur, common
 Copperleaf, Virginia
 Cudweed
 Cutleaf eveningprimrose
 Dodder
 Eclipta
 Fiddleneck
 Filaree
 Filaree, redstem

Fleabane, annual
 Goosefoot
 Gromwell, field
 Groundcherry, cutleaf
 Groundsel, common
 Henbit
 Jimsonweed
 Knotweed
 Kochia
 Lambsquarters, common
 Lettuce, miner's
 Lettuce, prickly
 London rocket
 Mallow, common
 Malva (little mallow)
 Maretail
 Mayweed
 Morningglory, entireleaf

Morningglory, ivyleaf
 Morningglory, pitted
 Mullein, turkey
 Mustard, wild
 Nettle
 Nightshade, black
 Nightshade, eastern black
 Nightshade, hairy
 Pennycress
 Pigweed, redroot
 Pineapple weed
 Puncturevine
 Purslane, common
 Radish, wild
 Ragweed, common
 Ragweed, giant
 Redmaids
 Shepherd's-Purse

Smartweed, Pennsylvania
 Sowthistle, annual
 Spurge, prostrate
 Starthistle, yellow
 Sunflower, common
 Sunflower, prairie
 Sunflower, volunteer
 Swinecress
 Thistle, Russian
 Turnip, wild
 Velvetleaf
 Vervain
 Vetch
 Virginia copperleaf
 Willowherb, panicle

Grass Weeds

Barnyardgrass
 Bluegrass, annual
 Brome, ripgut
 Bromegrass, downy
 Canarygrass
 Chess, soft
 Crabgrass, large

Crabgrass, smooth
 Cupgrass, woolly
 Foxtail, giant
 Foxtail, green
 Foxtail, yellow
 Goosegrass
 Johnsongrass, seedling

Junglerice
 Oat, wild
 Panicum, fall
 Panicum, Texas
 Rush, toad**
 Ryegrass, annual*
 Sandbur, field

Shattercane
 Sprangletop
 Stinkgrass
 Wheat, volunteer
 Windgrass
 Witchgrass

Biennial and Perennial Weeds

Aster, white heath
 Bindweed, field
 Bindweed, hedge
 Bluegrass, Kentucky
 Bromegrass, smooth
 Bulrush**
 Burdock
 Canada thistle
 Clover, Alsike
 Clover, red
 Clover, white

Dallisgrass
 Dandelion
 Dock, curly
 dogbank (hemp)
 Fescue
 Goldenrod, gray
 Guineagrass
 Horsetail
 Lovegrass
 Mugwort
 Mullein, common

Mustard, tansy
 Nutsedge, purple
 Nutsedge, yellow
 Onion, wild
 Orchardgrass
 Paragrass
 Plantain
 Poison ivy/oak
 Quackgrass
 Rocket, yellow
 Rose, wild

Rubus spp.
 Spurge, leafy
 Thistle, bull
 Thistle, musk
 Torpedograss
 Vaseygrass
 Woodsorrel
 Yarrow, common

* apply to annual ryegrass prior to 3 inches in height

** indicates suppression

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

1. **DO NOT** apply more than 230 fl oz of LIBERTY HERBICIDE per acre (3 lbs ai/A) to berry bushes and stone fruit in a 12-month period. **DO NOT** make more than 2 applications at a maximum rate of 115 fl oz per acre (1.5 lb ai/A) per application.
2. **DO NOT** apply more than 345 fl oz (4.5 lbs ai/A) of this product per acre to tree nuts, vines, pome fruit, citrus, and olives in any calendar year. **DO NOT** make more than 3 applications at a maximum rate of 115 fl oz per acre (1.5 lb ai/A) per application.
3. **DO NOT** graze, harvest, and/or feed treated orchard cover crops to livestock.
4. **DO NOT** apply this product through any type of irrigation system.
5. **DO NOT** apply this product aerially to tree, berry, or vine crops.
6. **DO NOT** apply this product within 14 days of nut, fruit, berry, or grape harvest.
7. Applications to citrus fruits, pome fruits and olives must be a minimum of 14 days apart.
8. Applications to stone fruit must be a minimum of 28 days apart.
9. **DO NOT** make spot spray applications to suckers, as tree injury may occur.

SUCKER CONTROL WITH LIBERTY HERBICIDE

LIBERTY HERBICIDE will reduce or eliminate sucker growth when applied to suckers that are young, green, and uncalled. For sucker control, apply a split application approximately 4 weeks apart at 78 fl oz of product/A. Coverage of all sucker foliage is necessary for optimum control. Suckers should not exceed 12 inches in length.

TANKMIX PARTNER INSTRUCTIONS

LIBERTY HERBICIDE does not provide residual weed control or control of unexposed plant parts. Certain herbicide tank mixes may aid in the performance of LIBERTY HERBICIDE or be added to provide residual herbicide activity. No additional surfactant is needed with any tank mix partner. LIBERTY 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. The tank mix partner must be used in accordance with the label limitations and precautions. No label dosage rates may be exceeded. LIBERTY HERBICIDE cannot be mixed with any product containing a label prohibition against such mixing.

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

APPLICATION DIRECTIONS FOR POTATO VINE DESICCATION

APPLICATION RATE AND TIMING

Apply LIBERTY HERBICIDE at the beginning of natural senescence of potato vines. Apply 29 fl oz/A. Do not split this application or apply more than one application per harvest. Potato varieties with heavy or dense vines may require an application of another desiccation product to complete vine desiccation.

Thorough coverage of the potato vines to be desiccated is essential. Use a sufficient volume of water (20 to 100 gpa) to obtain a thorough coverage of the potato vines. Vary the gallons of water per acre and the spray pressure as indicated by the density of the potato vines to assure thorough spray coverage. Increase the spray volume to at least 30 gallons of water per acre when the potato vine canopy is dense or under cool and dry conditions. Apply LIBERTY HERBICIDE with the spray boom as low as possible to achieve thorough coverage of the potato vines for best control and to minimize drift potential.

RESTRICTIONS TO THE DIRECTIONS FOR USE IN POTATO VINE DESICCATION

1. **DO NOT** apply more than 29 fl oz/A to potato vines per season.
2. **DO NOT** harvest potatoes until 9 days or more after application of LIBERTY HERBICIDE.
3. **DO NOT** apply to potatoes grown for seed.
4. Canola, corn, cotton, rice, soybean, and sugar beets may be planted at any time after the application of LIBERTY HERBICIDE as a potato vine desiccant.

5. **DO NOT** plant treated areas to wheat, barley, buckwheat, millet, oats, rye, sorghum, and triticale until 30 or more days after an application of LIBERTY HERBICIDE as a potato vine desiccant.
6. **DO NOT** plant treated areas to crops other than those listed in this use precautions section until 120 or more days after an application of LIBERTY HERBICIDE as a potato vine desiccant.

APPLICATION DIRECTIONS FOR USE ON RICE

THOROUGH SPRAY COVERAGE IS VERY IMPORTANT. For best results apply to emerged, young, actively growing weeds. LIBERTY HERBICIDE is a foliar-active material with little or no soil-residual activity. Weeds that emerge after application will not be controlled. Weed control may be reduced if application is made when heavy dew, fog, and mist/rain are present; or when weeds are under stress due to drought, cool temperatures, or extended periods of cloudiness. LIBERTY HERBICIDE is rainfast 4 hours after application to most weed species. Rainfall within 4 hours after application may necessitate retreatment or reduced weed control may result.

RESTRICTIONS TO THE DIRECTIONS FOR USE ON RICE

1. **DO NOT** exceed 67 oz of LIBERTY HERBICIDE per growing season.
2. **DO NOT** apply LIBERTY HERBICIDE within 70 days of harvesting rice.
3. **DO NOT** plant rotation crops in a field treated with LIBERTY 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. The crops listed on this label may be planted at any time.
4. **DO NOT** apply this product through any type of irrigation system.
5. **DO NOT** use paddy water from a rice field treated with LIBERTY HERBICIDE for irrigation, or as a water source for livestock or for raising crayfish.
6. **DO NOT** add surfactants or crop oils. A silicon-based anti-foam agent may be added if needed.

Application Timing for the Southern United States (Arkansas, Louisiana, Mississippi, Missouri, Texas)

Applications of LIBERTY HERBICIDE on rice may be made from the 1-leaf stage through the mid-tillering stage of development. Refer to the *Rate Tables for Weed Control in Rice* to select the proper rate to use to control the weed species present. LIBERTY HERBICIDE will have an effect on weeds that are larger than the recommended leaf stage, however speed of activity and control may be reduced.

Rice fields should be as level as possible and free of large clods to obtain uniform germination of rice and grassy weeds and to ensure uniform flood levels. If necessary, fields may be flushed prior to treatment so that the rice and grass/broadleaf weeds are actively growing at the time of treatment. If the rice field is flushed, allow sufficient time for germination of the weed species to occur prior to treatment.

Apply LIBERTY HERBICIDE prior to the permanent flood when weeds are in the 1-5 leaf stage. A second application is recommended after a new flush of weeds emerge. A second application may be made from 10 days after the first application up to the mid-tillering growth stage of the rice. For optimum weed control, apply LIBERTY HERBICIDE before canopy closure to ensure thorough spray coverage of the weed species.

When applying LIBERTY HERBICIDE post-flood, lower the water level so that 75% of the weed foliage is exposed. The water level may be brought back to normal level 48 hours after the herbicide application.

APPLICATION TIMING FOR CALIFORNIA

1. Water-Seeded Rice

LIBERTY HERBICIDE can be applied when the rice is in the 1-leaf stage to mid-tillering stage of development (but prior to panicle initiation). For optimum weed control apply LIBERTY HERBICIDE when rice is in the 4- to 5-leaf stage. Lower the water in the field in order to expose small broadleaf weeds and sedges. The water level may be brought back to the normal level 24 hours after herbicide application. The water level must be controlled such that the rice is not completely covered. A second application is recommended at the 2 to 3 tiller stage of rice. For optimum weed control, apply LIBERTY HERBICIDE before canopy closure to ensure thorough spray coverage of the weed species.

- Minimum paddy depth of 8 inches
- Do not exceed 34 fl oz (0.44 lbs ai/A) per single application
- Maximum of two applications at 34 fl oz (0.44 lbs ai/A) with a minimum 10-day re-treatment interval
- Do not exceed 67 fl oz (0.89 lbs ai/A) per year
- Minimum 7-day holding period after last application.

2. Drilled or Dry-Seeded Rice

Rice fields should be as level as possible and free of large clods to obtain uniform germination of rice and grassy weeds and to ensure uniform flood levels. If necessary, fields may be flushed prior to treatment so that the rice and grass/broadleaf weeds are actively growing at the time of treatment. If the rice field is flushed, allow sufficient time for germination of the weed species to occur prior to treatment.

Apply LIBERTY HERBICIDE prior to the permanent flood when weeds are in the 1-5 leaf stage. A second application is recommended after a new flush of weeds emerge. A second application may be made from 10 days after the first application up to the mid-tillering growth stage of the rice. For optimum weed control, apply LIBERTY HERBICIDE before canopy closure to ensure thorough spray coverage of the weed species.

- Do not exceed 67 fl oz (0.89 lbs ai/A) per single application
- 2 applications can be made at 34 fl oz (0.44 lbs ai/A) with a minimum 10-day re-treatment interval
- Do not exceed 67 fl oz (0.89 lbs ai/A) per year
- Minimum paddy depth of 4 inches
- Minimum 7-day holding period after flooding of the field

Rate Tables for Weed Control in Rice

Rates in fl oz of formulated product per acre for the control of weeds are shown in the following tables. In weed populations with mixed species, apply the rates needed for all species present.

1. Southern United States (Arkansas, Louisiana, Mississippi, Missouri, Texas)

Grass Weeds Controlled with LIBERTY HERBICIDE in Rice Grown in the Southern United States

Weed Species	Maximum Weed Growth Stage (leaf/tiller)	
	28 fl oz/A	34 fl oz/A
Barnyardgrass	4 leaf	2 tiller
Crabgrass, large	4 leaf	2 tiller
Fall Panicum	4 leaf	2 tiller
Johnsongrass	4 leaf	2 tiller
Rice, red*	2 leaf	2 tiller
Signalgrass, broadleaf	4 leaf	2 tiller
Sprangletop	4 leaf	2 tiller
Watergrass	6 leaf	2 tiller

*For optimum red rice control, make two applications of LIBERTY HERBICIDE. The first application should be made when the red rice is in the 2 – 3 leaf stage. The second application should be made after the newly emerged red rice reaches the 2 – 3 leaf stage, but before the white rice reaches the mid-tillering stage of development.

Broadleaf Weeds Suppressed or Controlled with LIBERTY HERBICIDE in Rice Grown in the Southern United States

Weed Species	Maximum Weed Height or Diameter (Inches)	
	28 fl oz/A	34 fl oz/A
Ammania	2"	4"
California Arrowhead	**	4"
Cocklebur, common	6"	10"
Curly Indigo	2"	8"
Dayflower	2"	4"
Eclipta	4"	6"
Morningglory, ivyleaf	4"	8"
Morningglory, pitted	4"	8"
Northern jointvetch	4"	8"
Pennsylvania smartweed	4"	8"
Sesbania, hemp	4"	10"

** indicates suppression

LIBERTY HERBICIDE applied at 34 fl oz/A may control or suppress the sedges shown in the following table. Control of sedges may be enhanced by using a second application or by a tank mix with other herbicides recommended on this label.

Sedges Suppressed with LIBERTY HERBICIDE in Rice Grown in the Southern United States

Sedges	34 fl oz/A
Bulrushes	**
Flatsedge	**
Nutsedge	**
Smallflower Umbrellaplant	**

** indicates suppression

2. California

**Grass Weeds Controlled with LIBERTY HERBICIDE
at 28 fl oz/A in Rice Grown in California**

Weed Species	Maximum Weed Growth Stage
Barnyardgrass	4 leaf
Sprangletop	4 leaf
Watergrass	4 leaf

**Broadleaf Weeds Suppressed or Controlled
with LIBERTY HERBICIDE in Rice Grown in California**

Weed Species	Maximum Weed Height (Inches)	
	28 fl oz/A	34 fl oz/A
Ammania	2	4
California Arrowhead	2	4
Ducksalad	2	4

LIBERTY HERBICIDE applied at 28 to 34 fl oz/A may control or suppress the sedges shown in the following table. Control of sedges may be enhanced by using a second application or tank mixes with other herbicides.

**Sedges Suppressed or Controlled
With LIBERTY HERBICIDE in Rice Grown in California.**

Weed Species	Maximum Weed Height (Inches)	
	28 fl oz/A	34 fl oz/A
Ricefield bullrush	**	4
Smallflower Umbrellaplant	**	4

** indicates suppression

TANK MIX INSTRUCTIONS FOR USE IN RICE

When using LIBERTY HERBICIDE in tank mix combinations, follow the precautions and directions of the most restrictive label for the appropriate timing, rate, and crop response information.

1. Southern United States (Arkansas, Louisiana, Mississippi, Missouri, Texas)

To enhance weed control and/or provide residual control in rice, LIBERTY HERBICIDE may be mixed with the following herbicides.

Arroso® 3-3E Herbicide

Basagran® Herbicide

Bolero EC® Herbicide

Londax® Herbicide

Prowl® 3.3EC Herbicide

Propanil

Stam® Herbicide

Permit® Herbicide

2. California

To enhance weed control and/or provide residual control in rice, LIBERTY HERBICIDE may be mixed with the following herbicides.

Londax® Herbicide

Stam® Herbicide

Super Wham® Herbicide

APPLICATION DIRECTIONS FOR USE IN RICE SEED PROPAGATION

LIBERTY HERBICIDE is to be applied as a foliar spray to selectively remove susceptible "segregates," i.e., undesirable rice plants which are not tolerant to glufosinate-ammonium and to control of a broad spectrum of emerged grass and broadleaf weeds in rice-seed production fields. Inbred lines or breeding material not possessing the glufosinate-ammonium tolerance gene will be severely injured or killed if treated with this herbicide. Apply LIBERTY HERBICIDE exclusively to rice-seed propagation fields in which the desired plants are glufosinate-ammonium tolerant.

THOROUGH SPRAY COVERAGE IS VERY IMPORTANT. LIBERTY HERBICIDE works best when weeds are small, and the crops and weeds are actively growing. Visual effects and control of rice susceptible "segregates" from LIBERTY HERBICIDE applications occur within 2 to 4 days after application under good growing conditions. The ability of LIBERTY HERBICIDE to eliminate rice plants not tolerant to LIBERTY HERBICIDE may be reduced when heavy dew, fog, or mist/rain is present on the crop; or when the crop is under stress due to drought, cool temperatures, or extended periods of cloudiness.

Rice fields should be as level as possible and free of large clods to obtain uniform germination of rice and grassy weeds and to ensure uniform flood levels. If necessary, fields may be flushed prior to treatment. If fields are flushed prior to treatment, flush in sufficient time so that the rice and grass/broadleaf weeds are actively growing at time of treatment.

Do not allow spray to contact foliage or green tissue of desirable vegetation other than rice lines in which the desired plants are glufosinate-ammonium tolerant. This product will injure any other green vegetation contacted by the spray.

INSTRUCTIONS FOR SEED HANDLING, STORAGE AND USE

Seed from treated plants must be held in secured storage until used for breeding of glufosinate-ammonium tolerant rice seed, or destroyed. Seed from treated plants must be labeled as follows: "Do Not Use for Feed or Food Purposes. Store Away from Feed and Food Stuffs." In addition, label the seed with the "Seed Disposal" statements found in the "Storage and Disposal" section of this label.

RESTRICTIONS TO THE DIRECTIONS FOR USE

1. **DO NOT** use rice, any rice processed commodities or rice straw treated with LIBERTY HERBICIDE for food or feed consumption.
2. **DO NOT** exceed 112 fl oz/A of LIBERTY HERBICIDE per growing season on rice being treated for segregate control in seed production fields.
3. **DO NOT** plant rotation crops in a field treated with LIBERTY HERBICIDE for 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.
4. **DO NOT** apply this product through any type of irrigation system.

Rate Instructions and Timing for Seed Production

For the selection of susceptible rice "segregates", LIBERTY HERBICIDE must be applied at 56 fl oz/A when rice is in the 1 to 3 leaf stage of growth. A second treatment of 56 fl oz/A must be applied 10 days later or up until the rice is in the mid-tillering state of growth.

- Do not exceed 112 fl oz (1.46 lbs ai/A) per single application
- 2 applications can be made at 56 fl oz (0.73 lbs ai/A) with a minimum 10-day re-treatment interval

- Do not exceed 112 fl oz (1.46 lbs ai/A) per year
- Minimum paddy depth of 4 inches
- If 1 application of 112 fl oz is made, the application must be made to a dry field. A minimum 7-day holding period after flooding of the field is required.
- If 2 applications are made, the first application must be made to a dry field.
- The second application may be made to a flooded field with a required 55-day holding period for a 4-inch paddy depth or a 30-day holding period for an 8-inch paddy depth.

WATER MANAGEMENT

A sufficient portion of the target grassy weed plant must be exposed to LIBERTY HERBICIDE for satisfactory control to be achieved. Therefore, if necessary, lower or allow water to recede so that at least 75% of the weed foliage is exposed above the water level. Do not increase the water level for at least 48 hours following the application of LIBERTY HERBICIDE. The water level may be brought back to normal level following this period.

TANK MIX INSTRUCTIONS FOR LIBERTY HERBICIDE USE IN RICE SEED PROPAGATION

When using LIBERTY HERBICIDE in tank mix combinations, follow the precautions and directions of the most restrictive label for the appropriate timing, rate, and crop response information.

1. Southern United States (Arkansas, Louisiana, Mississippi, Missouri, Texas)

To enhance weed control and/or provide residual control in rice, LIBERTY HERBICIDE may be mixed with the following herbicides.

Arroso® 3-3E Herbicide

Basagran® Herbicide

Bolero® 8EC Herbicide

Londax® Herbicide

Prowl® 3.3 EC Herbicide

Stam® Herbicide

Permit® Herbicide

2. California

To enhance weed control and/or provide residual control in rice, LIBERTY HERBICIDE may be mixed with the following herbicides.

Bolero® 8EC Herbicide

Londax® Herbicide

Stam® Herbicide

Super Wham® Herbicide

FALLOW FIELDS OR POST HARVEST

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

Apply LIBERTY HERBICIDE at 31 or 41 fl oz/A to fallow fields to control specific weeds. LIBERTY HERBICIDE must be applied with ammonium sulfate. Tank mixes with 2,4-D, glyphosate or atrazine are recommended with LIBERTY HERBICIDE to enhance total weed control. When using LIBERTY HERBICIDE in tank mix combinations, follow the precautions and directions of use of the most restrictive label. See the **Application and Mixing Procedures** section of this label for additional information on how to apply this product. See the **"Information"** section of this label for rotational crop restrictions.

FARMSTEADS, RECREATIONAL, AND PUBLIC AREAS

When applied as listed, LIBERTY 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 the **Application Directions for use on listed Tree, Vine, and Berry Crops** section of this label for appropriate application broadcast and spot spray application rates and lists of weeds controlled.

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 LIBERTY 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.

[All refillable 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 LIBERTY 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 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 or Bayer CropScience 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 LIBERTY 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: READ BEFORE USE

Read the entire Directions for Use, Conditions, Disclaimer of Warranties and Limitations of Liability before using this product. If terms are not acceptable, return the unopened product container at once.

By using this product, user or buyer accepts the following Conditions, Disclaimer of Warranties and Limitations of Liability.

CONDITIONS: The directions for use of this product are believed to be adequate and must be followed carefully. However, 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 weather conditions, presence of other materials, or the manner of use or application, all of which are beyond the control of Bayer CropScience. All such risks shall be assumed by the user or buyer.

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Net Contents: 2.5 Gallons, 270 Gallons & Bulk

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Produced for



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