



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY  
AND POLLUTION PREVENTION

April 4, 2021

Mary Beth Endres  
Registration Manager  
Liberty Crop Protection, LLC.  
1880 Fall River Drive, Suite 100  
Loveland, CO 80538

Subject: Registration Review Label Mitigation for Sulfentrazone and Imazethapyr  
Product Name: LIBERTY S-I  
EPA Registration Number: 89168-49  
Application Dates: 10/11/2018; 1/21/2020  
Decision Numbers: 572788; 558990

Dear Ms. Endres:

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

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

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

Page 2 of 2  
EPA Reg. No. 89168-49  
Decision No. 572788; 558990

If you have any questions about this letter, please contact Marisa Wright by phone at (703) 347-0463, or via email at [wright.marisa@epa.gov](mailto:wright.marisa@epa.gov).

Sincerely,

A handwritten signature in blue ink, appearing to read 'Linda Arrington', with a stylized flourish at the end.

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

Enclosure

<b>IMAZETHAPYR</b>	<b>GROUP</b>	<b>2</b>	<b>HERBICIDE</b>
<b>SULFENTRAZONE</b>	<b>GROUP</b>	<b>14</b>	<b>HERBICIDE</b>

# LIBERTY S-I

## HERBICIDE

<b>ACTIVE INGREDIENTS:</b>	<b>% BY WT.</b>
Sulfentrazone* .....	33.33%
Imazethapyr* .....	6.67%
<b>OTHER INGREDIENTS:</b> .....	60.00%
<b>TOTAL:</b> .....	<u>100.00%</u>

\*LIBERTY S-I Herbicide contains 4 pounds of active ingredient per gallon of product (3.33 pounds a.i. of sulfentrazone and 0.67 pounds a.i. of imazethapyr)

## KEEP OUT OF REACH OF CHILDREN CAUTION / PRECAUCIÓN

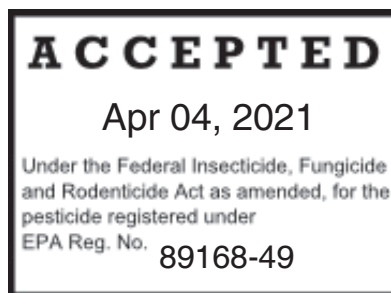
Si usted no entiende esta etiqueta busque a alguien para que se la explique a usted en detalle.  
(If you do not understand this label find someone to explain it to you in detail.)

**SEE INSIDE BOOKLET FOR FIRST AID AND ADDITIONAL PRECAUTIONARY STATEMENTS.**

**EPA Reg. No.: 89168-49**

**EPA Est. No.:** \_\_\_\_\_

**NET CONTENTS:** \_\_\_\_\_ Gal ( \_\_\_\_ L)



**Manufactured for:**  
LIBERTY CROP PROTECTION, LLC  
1880 Fall River Drive, Suite 100  
Loveland, CO 80538

102120

### FIRST AID

**If Inhaled:** Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice

**If on Skin or Clothing:** Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

**If in Eyes:** Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

**If Swallowed:** Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person.

### HOTLINE NUMBER

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. For emergency information concerning this product, call the National Pesticides Information Center (NPIC) at **1-800-858-7378** or your poison control center at **1-800-222-1222**.

For Chemical Spill, Leak, Fire or Exposure, call CHEMTREC **800-424-9300**.

### PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS CAUTION

Causes moderate eye irritation. Harmful if inhaled, swallowed, or absorbed through skin. Avoid breathing vapor or spray mist. Avoid contact with skin, eyes or clothing.

### PERSONAL PROTECTIVE EQUIPMENT (PPE)

Applicators and other handlers must wear: long-sleeved shirt and long pants, socks, shoes and chemical-resistant gloves.

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

### USER SAFETY RECOMMENDATIONS

#### Users should:

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

### ENVIRONMENTAL HAZARDS

This pesticide is toxic to marine/estuarine invertebrates. Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Drift and runoff may be hazardous to terrestrial and aquatic plants in neighboring areas. Do not contaminate water when disposing of equipment wash waters or rinsate.

### Non-Target Organism Advisory

This product is toxic to plants and may adversely impact the forage and habitat of non-target organisms, including pollinators, in areas adjacent to the treated site. Protect the forage and habitat of non-target organisms by following label directions intended to minimize spray drift.

**Groundwater Advisory:** This chemical is known to leach through soil into groundwater under certain conditions as a result of label use. Use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination.

Do not use on coarse soils classified as sand which have less than 1% organic matter.

**Surface Water Advisory:** Sulfentrazone can contaminate surface water through spray drift. Under some conditions, sulfentrazone may also have a high potential for runoff into surface water (primarily via dissolution in runoff water), for several to many months post-application. These include poorly draining or wet soils with readily visible slopes toward adjacent surface waters, frequently flooded areas, areas overlying extremely shallow groundwater, areas with in-field canals or ditches that drain to surface water, areas not separated from adjacent surface waters with vegetated filter strips, and areas overlying tile drainage systems that drain to surface waters.

Imazethapyr may impact surface water quality due to runoff of rain water. This is especially true for poorly draining soils and soils with shallow ground water. Imazethapyr is classified as having high potential for reaching surface water via runoff for several months or more after application. A level, well-maintained vegetative buffer strip between areas to which this product is applied and surface water features such as ponds, streams, and springs will reduce the potential loading of Imazethapyr from runoff water and sediment. Runoff of this product will be reduced by avoiding applications when rainfall or irrigation is expected to occur within 48 hours.

### PHYSICAL/CHEMICAL HAZARDS

Do not use or store near open flame. Do not mix or allow contact with oxidizing agents. Hazardous chemical reaction may occur.

### 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 interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

**Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 12 hours.**

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is: Coveralls over long-sleeved shirt and long pants, chemical resistant gloves, and shoes plus socks.

### RESISTANCE MANAGEMENT RECOMMENDATIONS

For resistance management, this product contains both a Group 2 (Imazethapyr) and Group 14 (Sulfentrazone) herbicide. Any weed population may contain plants naturally resistant to Group 2 and/or Group 14 herbicides. The resistant individual may dominate the weed population if these herbicides are used repeatedly in the same fields. Appropriate resistance-management strategies should be followed.

### Weed Management

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

- Rotate the use of this product or other Group 2 and Group 14 herbicides within a growing season sequence or among growing seasons with different herbicide groups that control the same weeds in the field.
- Use tank mixtures with herbicides from a different group if such use is permitted; where information on resistance in target weed species is available, use the less resistance-prone partner at a rate that will control the target weed(s) equally as well as the more resistance-prone partner. Consult your local extension service or certified crop advisor if you are unsure as to which active ingredient is currently less prone to resistance.
- Adopt an integrated weed-management program for herbicide use that includes scouting and uses historical information related to herbicide use and crop rotation, and that considers tillage (or other mechanical control methods), cultural (e.g., higher crop seeding rates; precision fertilizer application

method and timing to favor the crop and not the weeds), biological (weed-competitive crops or varieties) and other management practices.

- Scout before and after herbicide application to monitor weed populations for early signs of resistance development. Indicators of possible herbicide resistance include: (1) failure to control a weed species normally controlled by the herbicide at the dose applied, especially if control is achieved on adjacent weeds; (2) a spreading patch of non-controlled plants of a particular weed species; (3) surviving plants mixed with controlled individuals of the same species. If resistance is suspected, prevent weed seed production in the affected area by an alternative herbicide from a different group or by a mechanical method such as hoeing or tillage. Prevent movement of resistant weed seeds to other fields by cleaning harvesting and tillage equipment when moving between fields, and planting clean seed.
- If a weed pest population continues to progress after treatment with this product, discontinue use of this product, and switch to another management strategy or herbicide with a different mode of action, if available.
- Contact your local extension specialist or certified crop advisors for additional pesticide resistance-management and/or integrated weed-management recommendations for specific crops and weed biotypes.
- For further information or to report suspected resistance, contact LIBERTY CROP PROTECTION, LLC at [855-466-8428 or 844-425-8488 or other appropriate telephone number].

### **Management of Resistant Biotypes**

Since the occurrence of resistant weeds cannot be determined until after product use and scientific confirmation, manufacturer is not responsible for any losses that may result from the failure of this product to control resistant weed biotypes.

The following good agronomic practices are recommended to reduce the spread of resistant biotypes:

- If a naturally occurring resistant biotype is present in your application site, this product should be tank-mixed or applied sequentially with an appropriately labeled herbicide with a different mode of action to achieve control.
- Cultural and mechanical control practices (e.g. crop rotation or tillage) may also be used as appropriate.
- Scout treated application site after herbicide applications and control escaping weeds including resistant biotypes before they set seed.
- Thoroughly clean equipment before leaving fields known to contain resistant biotypes.
- Contact your local sales representative, crop advisor, or extension agent to find out if suspected resistant weeds to these Mode of Actions have been found in your region. Do not assume that each listed weed is being controlled by multiple mechanisms of action. Co-formulated active ingredients are intended to broaden the spectrum of weeds that are controlled. Some weeds may be controlled by only one of the active ingredients in this product.

### **Integrated Pest (Weed) Management**

This product may be integrated into an overall weed pest management strategy whenever the use of an herbicide is required. Practices known to reduce weed development (tillage, crop competition) and herbicide use (weed scouting, proper application timing, banding) should be followed wherever possible. Consult local agricultural and weed authorities for additional IPM strategies established for your area.

### **DIRECTIONS FOR USE**

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Read all Directions for Use carefully before applying. 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.

### **PRODUCT INFORMATION**

LIBERTY S-I is a soluble concentrate formulation. This product is to be mixed with water, liquid fertilizer, or mixtures of water and liquid fertilizer and sprayed for selective preemergence or preplant incorporated weed control.

When applied according to the instructions on this label, LIBERTY S-I will control listed broadleaf and sedge weeds and provide grass suppression.

The mode of action of LIBERTY S-I herbicide involves uptake by weed roots and shoots. Preemergence and preplant incorporated applications of this product require rainfall or irrigation to activate the herbicide. The amount of rainfall or irrigation required for activation following application depends on existing soil moisture, organic matter content and soil texture. This product must be activated by 0.5 to 1.0 inch of rainfall or irrigation water or erratic weed control will result. If adequate moisture (1/2 to 1 inch) is not received within 7 to 10 days after the LIBERTY S-I treatment, a shallow cultivation may be needed to aid in activation to obtain desired weed control. When sufficient moisture is received after dry conditions, this product will provide control of susceptible germinating weeds. Soil applications of this product must be made before crop seed germination to prevent injury to the emerging crop seedlings. When applications after planting are delayed, injury may occur if seeds are germinating or if they are located near the soil surface (cracking). LIBERTY S-I herbicide exhibits excellent crop safety. Poor growing conditions, such as excessive moisture, cool temperatures, and soil compaction or the presence of various pathogens may impact seedling vigor. Under these conditions, the active ingredients in this product, like other soil-applied herbicides, can contribute to crop response. However, these early symptoms are short-lived.

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

### **Proper Handling Instructions**

This product may not be mixed or loaded within 50 feet of any wells (including abandoned wells and drainage wells), sink holes, perennial or intermittent streams and rivers, and natural or impounded lakes and reservoirs. This setback does not apply to properly capped or plugged abandoned wells and does not apply to impervious pad or properly diked mixing/loading areas.

Operations that involve mixing, loading rinsing, or washing of this product into or from pesticide handling or application equipment or containers within 50 feet of any well are prohibited unless conducted on an impervious pad constructed to withstand the weight of the heaviest load that may be positioned on or moved across the pad. Such a pad shall be designed and maintained to contain any product spills or equipment leaks, container or equipment rinse or wash water, and rainwater that may fall on the pad. Surface water shall not be allowed to either flow over or from the pad, which means the pad must be self-contained. The pad shall be sloped to facilitate material removal. An unroofed pad shall be of sufficient capacity to contain at a minimum 110% of the capacity of the largest pesticide container or application equipment on the pad. A pad that is covered by a roof of sufficient size to completely exclude precipitation from contact with the pad shall have a minimum containment capacity of 100% of the capacity of the largest pesticide container or application equipment on the pad. Containment capacities as described above shall be maintained at all times. The above specific minimum containment capacities do not apply to vehicles when delivering pesticide shipments to the mixing/loading site. States may have in effect additional requirements regarding wellhead setbacks and operational containment.

This product must be used in a manner which will prevent back siphoning into wells, spills or improper disposal of excess pesticide, spray mixtures or rinsates.

### **Restrictions**

- Do not apply this product through any type of irrigation system.
- Do not use flood irrigation to apply or incorporate this product.

### **CROP ROTATIONAL INTERVALS**

Shown below are the minimum intervals in months from the time of LIBERTY S-I application until LIBERTY S-I treated soil may be replanted with the crops listed. This product is tank mixed with other herbicide(s), refer to all those labels for re-cropping instructions, following the intervals that are the most restrictive. For crops not listed, the interval is 30 months in addition to a successful field bioassay.

## CROP ROTATION INTERVALS

CROP	INTERVAL (Months)
Alfalfa	12
Barley	9 1/2
Cabbage	40 (18 for the states of AL, DE, FL, GA, IN, KY, MD, NJ, NC, PA, SC, VA)
Canola, Crambe	40 with bioassay**
Chickpeas	10
Corn, field	10, 4***
Corn, seed	10
Corn, pop	18, 10 <sup>2</sup>
Corn, Sweet	18, 10 <sup>2</sup>
Cotton	18
Dry Beans	Anytime
Dry Peas	Anytime
Flax	26
Lettuce	18
Lima Beans	4
Oats	18
Pease	10
Potatoes	26
Rice	40
Rye	4 (18 for the states of MN, ND North of Hwy #210)
Safflower	18
Snap Beans	10
Sorghum	18
Soybeans	Anytime
Sugar Beets	40 with bioassay**
Sunflowers	18
Sweet Potatoes	26 (18 for the states of AL, DE, FL, GA, IN, KY, MD, NJ, NC, PA, SC, VA)
Tobacco	9 1/2
Wheat	4

\*\* The field bioassay is a test strip of the intended crop planted across the previously treated field and grown to maturity. The test strip should include low spots, knolls, and soil variations such as pH and type. If injury does not occur in the test strip the crop may be planted the following year.

\*\*\* IR, Clearfield, and IMR corn hybrids may be planted after 4 months where this product was applied at 6 fluid ounces per acre or less.

<sup>1</sup> Hybrid Corn Seed Production, Growers are directed to contact the seed company for information and recommendations regarding the planting of corn grown for seed in field treated with this product the previous year. To the extent consistent with applicable law Liberty will not accept responsibility for any crop injury on field corn grown for seed following an application of this product.

<sup>2</sup> Sweet corn (Processed only) and popcorn may be planted after 10 months where this product was applied at 6 fluid ounces per acre or less.

## REPLANTING INSTRUCTIONS

If the initial planting of soybeans fails to produce a uniform stand, soybeans may be replanted in fields treated with LIBERTY S-I alone. When tank mixing with a labeled product, refer to the replant instructions for that product. Do not replant treated fields with any crop at intervals that are inconsistent with the CROP ROTATION INTERVALS on the LIBERTY S-I label. Where a tank mix is used, refer to the product's labels for any additional replant instructions.



## MIXING AND LOADING INSTRUCTIONS

### LIBERTY S-I Applied Alone

Select the proper labeled application rate of LIBERTY S-I from the appropriate crop section. Fill the spray tank with approximately one-half of the volume of water needed for the acreage being treated. With agitator operating, add the required amount of this product for acreage being treated. Allow the product to fully disperse. Complete the addition of spray water. Maintain agitation during filling, mixing and application. Apply the mixture of this product immediately after mixing.

### LIBERTY S-I Applied in Tank Mix Combination

Select the proper labeled application rate of LIBERTY S-I from the appropriate crop section. Read and follow all applicable use directions, precautions and restrictions on the respective tank mix product labels. To ensure product compatibility, conduct a jar test before large volume mixing. Provided the jar test indicates the mixture is compatible, prepare the tank mixture as follows.

Fill the spray tank with approximately one-half of the volume of water needed for the acreage being treated. With agitator operating, add the required amount of LIBERTY S-I for the acreage being treated by opening the bottle(s) and measuring directly into the spray tank. Allow the product to fully disperse. Next, add the amount(s) of the additional tank mix product(s) in the following order: first dry formulations (e.g., wettable powders, dry flowables), next liquid suspensions (e.g., flowables) and finally liquids (e.g., EC's). Allow time for complete mixing and dispersion after each addition, adding water as necessary. Complete the addition of spray water. Maintain agitation during filling, mixing and application. Use tank mixtures of this product immediately after mixing.

### Fertilizer Spray Mixtures

Applications of LIBERTY S-I alone, or with recommended tank mixtures, in conjunction with fertilizer solutions may be used unless use directions specifically state otherwise. Small quantities should be tested for compatibility by the following procedure before mixing in full spray tank quantities.

1. Add 1 pint of fertilizer solution in a quart jar.
2. Add the appropriate amount of herbicide based on the table below. If more than one product is to be used, add each separately using the following sequence: dry formulations (e.g., wettable powders, dry flowables) first, liquid suspensions (e.g., flowables) next and finally liquids (e.g., EC's).

### MIXTURE COMPATIBILITY TESTING

Herbicide Type	Herbicide Field Use Rate	Amount Herbicide Added Per Pint
Wettable Powder or Dry Flowable	0.5 pounds	0.75 teaspoons
	1.0 pounds	1.5 teaspoons
	2.0 pounds	3.0 teaspoons
	3.0 pounds	4.5 teaspoons
Emulsifiable Concentrates	1.0 Pint	0.5 teaspoons
Liquid Flowables	1.0 Quarts	1.0 teaspoons
	2.0 Quarts	2.0 teaspoons
	3.0 Quarts	3.0 teaspoons

\*Based on a spray volume of 25 gallons per acre. For lower or higher spray volumes, adjust fluid fertilizer quantity accordingly.

3. Close jar and shake well.
4. Watch mixture for several seconds, again after 5 minutes and again after 30 minutes. If herbicide/fertilizer combination remains mixed or can be remixed readily (i.e., does not permanently separate, foam, gel or become lumpy), the mixture is compatible and can be mixed in full volumes and sprayed. If the mixture is compatible, prepare spray by adding fertilizer solution to the tank first, then follow directions noted below.

### LIBERTY S-I Applied Alone with Liquid Fertilizer

When adding LIBERTY S-I to a liquid fertilizer carrier, this product should be premixed in clear water. Fill the spray tank one-half full with fertilizer solution. With agitator operating, add the LIBERTY S-I slurry to the spray tank. Use a minimum of one gallon of water for each container of LIBERTY S-I. Stir until completely

dissolved. Then add slurry to the spray tank through a 20 to 35 mesh screen. Rinse container used for pre-mixing and add rinsate to the spray tank. Complete filling the sprayer tank with fertilizer. Maintain agitation during filling, mixing and application. Use spray mixture of this product immediately after mixing.

### **LIBERTY S-I Applied in Tank Mix Combinations**

Fill the spray tank one-half full with fertilizer solution. With the agitator operating, add a premix of LIBERTY S-I as described in the preceding paragraph. Next, dilute the individual tank mix partners with sufficient water to form a free flowing mixture; then add to the spray tank of fertilizer. While maintaining agitation, add the other products using the following order: slurry of dry formulations (wetable powders, dry flowables) first, diluted liquid formulations (EC's, flowables) second. Complete filling the sprayer tank with fertilizer. Maintain agitation during filling, mixing and application. Use LIBERTY S-I spray mixture immediately after mixing.

## **APPLICATION INFORMATION**

### **Ground Application**

Use a conventional low pressure herbicide boom sprayer equipped with suitable nozzles and screens. Apply uniformly using properly calibrated nozzles (10 to 40 psi) and screens and strainers no finer than 50 mesh. Use 10 to 40 gallons of spray solution per acre. Do not exceed 40 psi spray pressure unless required by the spray nozzle manufacturer.

Water or liquid fertilizer solutions may be used as the carrier for LIBERTY S-I when applied alone or in tank mixtures with other registered soybean herbicides. Conduct a jar test to determine the compatibility of this product and the fertilizer solution.

Apply LIBERTY S-I spray mixture immediately after mixing. Continuous agitation is required until all spray mixture has been applied. Avoid swath overlaps. Shut off spray booms while turning, slowing or stopping, as over application may result. Spray mixtures of this product should not be allowed to sit overnight as settling of product and difficulty of re-suspending may occur.

To avoid injury to sensitive crops, spray equipment used for LIBERTY S-I applications must be drained and thoroughly cleaned with water plus ammonia before being used to apply other products. See SPRAY EQUIPMENT CLEANOUT section of this label.

### **Restrictions**

- Do not allow direct, and/or indirect spray contact with non-target plants.
- Do not apply near desirable vegetation.
- Maintain adequate distance between target area and desirable plants to avoid spray contact.

### **Aerial Application**

Aerial application is allowed only when environmental conditions prohibit ground application. LIBERTY S-I may be applied by air using properly calibrated nozzle types and arrangements that will provide optimum coverage while producing minimal amounts of fine droplets. Apply sufficient spray volume to achieve adequate coverage. When this product is allowed to be applied by air, applicator must use a minimum finished spray volume of 5 gallons per acre. The maximum release height must be 10 feet from the top of the crop canopy, unless a greater application height is required for pilot safety.

### **Restriction**

- Do not apply when wind speed favors drift beyond the area intended for treatment.

## **RUNOFF AND WIND EROSION PRECAUTIONS**

- Do not apply under conditions which favor runoff or wind erosion of soil containing this product to non-target areas.
- To prevent off-site movement due to runoff or wind erosion:
- Avoid treating powdery dry or light sandy soils when conditions are favorable for wind erosion. Under these conditions, allow the soil surface to be settled by rainfall or irrigation.
- Do not apply to impervious substrates such as paved or highly compacted surfaces or frozen or snow covered ground.
- Do not apply to soils when saturated with water.

- Do not use tail water from the first flood or furrow irrigation of treated fields to treat non-target crops unless at least 1/2 inch of rainfall has occurred between application and the first irrigation.

## **SPRAY DRIFT**

### **Aerial Applications**

- Do not release spray at a height greater than 10 feet above the ground or vegetative canopy, unless a greater application height is necessary for pilot safety.
- For applications prior to the emergence of crops and target weeds, applicators are required to use a coarse or coarser droplet size (ASABE S572.1).
- For all other applications, applicators are required to use a medium or coarser droplet size (ASABE S572.1).
- Applicators must use 1/2 swath displacement upwind at the downwind edge of the field.
- Do not apply when wind speeds exceed 15 mph at the application site. If the windspeed is greater than 10 mph, the boom length must be 65% or less of the wingspan for fixed wing aircraft and 75% or less of the rotor diameter for helicopters. Otherwise, the boom length must be 75% or less of the wingspan for fixed-wing aircraft and 90% or less of the rotor diameter for helicopters.
- Do not apply during temperature inversions.

### **Ground Boom Applications**

- User must only apply with the release height recommended by the manufacturer, but no more than 3 feet above the ground or crop canopy unless making a turf, pasture, or rangeland application, in which case applicators may apply with a nozzle height no more than 4 feet above the ground.
- For applications prior to the emergence of crops and target weeds, applicators are required to use a coarse or coarser droplet size (ASABE S572.1).
- For all other applications, applicators are required to use a medium or coarser droplet size (ASABE S572.1).
- Do not apply when wind speeds exceed 15 miles per hour at the application site.
- Do not apply during temperature inversions.

### **Boomless Ground Applications**

- Applicators are required to use a medium or coarser droplet size (ASABE S572.1) for all applications.
- Do not apply when wind speeds exceed 15 miles per hour at the application site.
- Do not apply during temperature inversions.

## **SPRAY DRIFT ADVISORIES**

THE APPLICATOR IS RESPONSIBLE FOR AVOIDING OFF-SITE SPRAY DRIFT. BE AWARE OF NEARBY NON-TARGET SITES AND ENVIRONMENTAL CONDITIONS.

### **IMPORTANCE OF DROPLET SIZE**

An effective way to reduce spray drift is to apply large droplets. Use the largest droplets that provide target pest control. While applying larger droplets will reduce spray drift, the potential for drift will be greater if applications are made improperly or under unfavorable environmental conditions.

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

- **Volume** - Increasing the spray volume so that larger droplets are produced will reduce spray drift. Use the highest practical spray volume for the application. If a greater spray volume is needed, consider using a nozzle with a higher flow rate. Ground applicators must use a minimum finished spray volume of 10 gallons per acre. When sulfentrazone is tank mixed with a contact burndown herbicide, ground applicators must use a minimum spray volume of 15 gallons per acre.
- **Pressure** - Use the lowest spray pressure recommended for the nozzle to produce the target spray volume and droplet size.
- **Spray Nozzle** - Use a spray nozzle that is designed for the intended application. Consider using nozzles designed to reduce drift.

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

- **Adjust Nozzles** - Follow nozzle manufacturers' recommendations for setting up nozzles. Generally, to reduce fine droplets, nozzles should be oriented parallel with the airflow in flight.

#### **Boom-less Ground Applications**

- Setting nozzles at the lowest effective height will help to reduce the potential for spray

### **Handheld Technology Applications**

- Take precautions to minimize spray drift.

### **NOZZLE TYPE AND DROPLET SIZE**

Select nozzles and application pressure that deliver medium to coarse or larger spray droplets as indicated in the nozzle manufacturer's recommendations and in accordance with ASABE Standard S-572. Select coarse to very coarse droplet size when product is used as a preemergent/preplant application. Select medium to very coarse droplet size when product is used postemergence with a contact burndown herbicide. Applicators may spray only when wind speed is between 3 and 10 mph. **DO NOT** apply as spray droplets smaller than medium to coarse (defined by the ASABE standard).

### **BOOM HEIGHT – Ground Boom**

For ground equipment, the boom should remain level with the crop and have minimal bounce.

### **RELEASE HEIGHT - Aircraft**

Higher release heights increase the potential for spray drift.

### **SHIELDED SPRAYERS**

Shielding the boom or individual nozzles can reduce spray drift. Consider using shielded sprayers. Verify that the shields are not interfering with the uniform deposition of the spray on the target area.

### **TEMPERATURE AND HUMIDITY**

When making applications in hot and dry conditions, use larger droplets to reduce effects of evaporation.

### **TEMPERATURE INVERSIONS**

Drift potential is high during a temperature inversion. Temperature inversions are characterized by increasing temperature with altitude and are common on nights with limited cloud cover and light to no wind. The presence of an inversion can be indicated by ground fog or 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. Avoid applications during temperature inversions.

### **WIND**

Drift potential generally increases with wind speed. **AVOID APPLICATIONS DURING GUSTY WIND CONDITIONS.**

Applicators need to be familiar with local wind patterns and terrain that could affect spray drift.

## **SPRAY EQUIPMENT CLEANOUT**

After spraying this product and before using sprayer equipment for any other applications, the sprayer must be thoroughly cleaned using the following procedure.

1. Drain sprayer tank, hoses, and spray boom and thoroughly rinse the inside of the sprayer tank with clean water to remove sediment and residues. Thoroughly flush sprayer hoses, boom and nozzles with clean water.
2. Fill the tank 1/2 full with clean water, and add appropriate tank mix cleaner or ammonia (follow manufacturer's directions for use). Fill the tank to capacity and operate the sprayer for 15 minutes to flush hoses, boom, and nozzles.
3. Convenient and thorough cleaning of the sprayer can be achieved if the cleaning solution is left in the spray tank, hoses, spray booms and spray nozzles overnight or during storage.
4. Before using the sprayer, drain the spray system. Rinse the tank with clean water and flush through the hoses, boom, and nozzles. Remove and clean spray tips and screens separately with the tank mix cleaner or ammonia solution.
5. Properly dispose of all cleaning solution and rinsate in accordance with Federal, State and local regulations and guidelines.

Should small quantities of this product remain in inadequately cleaned mixing, loading and/or spray equipment, they may be released during subsequent applications potentially causing effects to certain crops and other vegetation. Liberty accepts no liability for any effects due to inadequately cleaned equipment.

### **Restrictions**

- Do not drain or flush equipment on or near desirable trees or plants.
- Do not contaminate any body of water including irrigation water that may be used on other crops.

## WEEDS CONTROLLED

When used as directed, LIBERTY S-I will provide control or suppression of the following broadleaf weeds and grasses.

Common Name	Scientific Name
<b>Broadleaves</b>	
Amaranth, Palmer	<i>Amaranthus, Palmer</i>
Amaranth spiny	<i>Amaranthus, spinosus</i>
Amaranth spleen	<i>Amaranthus dubius</i>
Anoda spurred	<i>Anoda cristata</i>
Beggarweed, Florida	<i>Desmodium tortuosum</i>
Carpetweed	<i>Mullugo verticillata</i>
Catchweed Bedstraw	<i>Galium aparine</i>
Cocklebur common1	<i>Xanthium Pensylvanicum</i>
Copperleaf, Hophornbeam	<i>Acalypha ostryeafolia</i>
Copperleaf Virginia	<i>Acalypha virginica</i>
Daisy, American	<i>Eclipta alba</i>
Eclipta	<i>Eclipta prostrata</i>
Galinsoga, hairy	<i>Galinsoga ciliata</i>
Golden Crownbeard	<i>Verbesina encelioides</i>
Groundcherry clammy (seedling)	<i>Physalis heterophylla</i>
Groundcherry cutleaf	<i>Physalis angulata</i>
Jimsonweed	<i>Datura stramonium</i>
Kochia	<i>Kochia scoparia</i>
Ladysthumb	<i>Polygonum persicaria</i>
Lambsquarters common	<i>Chenopodium album</i>
Marshelder	<i>Iva xanthifolia</i>
Morningglory, entireleaf	<i>Ipomea hederacea integriusc</i>
Morningglory, ivyleaf	<i>Ipomea hederacea hederacea</i>
Morningglory, palmleaf	<i>Ipomea Wrightii</i>
Morningglory, pitted	<i>Ipomea lacunose</i>
Morningglory, purple	<i>Ipomea turbinata</i>
Morningglory, red	<i>Ipomea coccinea</i>
Morningglory, scarlet	<i>Ipomea hederifolia</i>
Morningglory, smallflower	<i>Jacquemontia tamnifolia</i>
Morningglory, tall	<i>Ipomea purpurea</i>
Mustard, black	<i>Brassica nigra</i>
Mustard Tumble	<i>Sisymbrium altissimum</i>
Mustard, wild	<i>Brassica kaber</i>
Nightshade, black	<i>Solanum nigrum</i>
Nightshade, Eastern black	<i>Solanum americanum</i>
Nightshade hairy	<i>Solanum sarrachoides</i>
Pigweed, redroot	<i>Amaranthus retroflexus</i>
Pigweed smooth	<i>Amaranthus hybridus</i>
Poinsettia, wild	<i>Euphorbia heterophylla</i>
Poorjoe	<i>Diodia teres</i>
Purslane, common	<i>Portulaca oleracea</i>
Pusley, Florida	<i>Richardia scabra</i>
Redmaids, Rockpurslane	<i>Calandrinia ciliate</i>
Redstem Filaree	<i>Erodium cicutarium</i>
Redweed	<i>Melochia corchorifolia</i>
Senna, coffee	<i>Cassia occidentalis</i>
Shepherdspurse	<i>Capsella bursa pastoris</i>
Sida, prickly (Teaweed)	<i>Sida spinose</i>

Common Name	Scientific Name
Sida, southern	<i>Sida acuta</i>
Smartweed, PA	<i>Polygonum pensylvanicum</i>
Spurge, prostrate	<i>Euphorbia humistrata</i>
Spurge, spotted	<i>Euphorbia maculate</i>
Starbur, bristly	<i>Acanthospermum hispidum</i>
Thistle, Russian	<i>Salsola kali</i>
Velvetleaf	<i>Abutilon theophrasti</i>
Venice Mallow	<i>Hibiscus trionium</i>
Waterhemp, common	<i>Amaranthus rudis</i>
Waterhemp, tall	<i>Amaranthus tuberculatos</i>
Wild Buckwheat	<i>Polygonum convolvulus</i>

Common Name	Scientific Name
<b>Grasses (suppression only)</b>	
<b>Tank mixing with grass soil applied herbicides, postemergence grass herbicides, or mechanical cultivation will be required for complete grass control</b>	
Foxtail bristly	<i>Setaria verticillata</i>
Foxtail giant	<i>Setaria faberi</i>
Foxtail green	<i>Setaria viridis</i>
Foxtail yellow	<i>Setaria lutescens</i>
Johnsongrass seedling <sup>1</sup>	<i>Sorghum halapense</i>
Shattercane	<i>Sorghum bicolor</i>
Fall Panicum <sup>1</sup>	<i>Panicum dichotomiflorum</i>

Common Name	Scientific Name
<b>Sedges</b>	
Nutsedge purple	<i>Cyperus rotundus</i>
Nutsedge yellow	<i>Cyperus esculentus</i>
Sedge, annual	<i>Cares spp.</i>

<sup>1</sup> Will not control ALS resistant biotypes of these weed species

### SOYBEANS

#### TIMING AND METHOD OF APPLICATION

LIBERTY S-I may be applied alone or in tank mixture combinations for the control of the weeds listed in conventional or GMO soybean varieties. (Roundup Ready®, LibertyLink®, or other glyphosate and/or glufosinate-tolerant varieties).

LIBERTY S-I can be applied from 45 days prior to planting up to 3 days after planting. Do not apply if soybean seedlings are emerging (cracking) or no more than 3 days after planting as plant injury may occur. When applying this product greater than 30 days pre-plant, use the highest application rate within the rate range for the appropriate soil texture and organic matter. This product may be applied preemergence or preplant incorporated. This product may be followed by labeled postemergence soybean herbicides for increased control of grass and broad leaf weeds. Always follow the most restrictive label when tank mixing.

**Table 1:  
LIBERTY S-I USE RATES - For All Soybeans**

LIBERTY S-I Use Rate Table			
Spring Preplant, Preemergence and PPI Applications			
% Organic Matter*	Fluid ounces LIBERTY S-I (lb ai sulfentrazone and lb ai imazethapyr) per acre		
	Soil Texture		
	Coarse*	Medium	Fine
>1.0 – 2.0	6.0 – 8.0 (0.156 – 0.208 and	8.0 – 10.0 (0.208 – 0.26 and	10.0 – 12.0 (0.26 – 0.312 and

	0.03 – 0.04)	0.04 – 0.05)	0.05 – 0.06)
2.0 – 4.0+	8.0 – 10.0 (0.208 – 0.26 and 0.04 – 0.05)	10.0 – 12.0 (0.26 – 0.312 and 0.05 – 0.06)	12.0 (0.312 and 0.06)
<p>Refer to the following chart for information on soil type under the COARSE, MEDIUM, and FINE categories. Use higher rates for soils of pH less than 7.0 and the lowest rate for pH greater than 7.0 within the rate range. * Do not use on coarse soils classified as sand, which have less than 1% organic matter.</p>			

### SOIL CLASSIFICATION CHART

COARSE SOILS	MEDIUM SOILS	FINE SOILS
Sand	Sandy clay loam	Silty clay loam
Loamy sand	Sandy clay	Silty clay
Sandy loam	Loam	Clay loam
	Silt loam	Clay
	Silt	

### Spring Preplant Applications

For applications of LIBERTY S-I greater than 30 days preplant use the highest application rate for the appropriate soil texture and organic matter.

### Preemergence Applications

LIBERTY S-I may be applied at planting time or within 3 days after planting, but before seed germination. This product may be applied alone or in tank mix combinations with other registered soybean herbicides. When applied in tank mix combinations, follow applicable use directions, including application rates, precautions and restrictions of each product in the mixture. Properly closed seed furrows are necessary before applications.

### Preplant Incorporated Applications

LIBERTY S-I may be applied alone or in tank mix combinations with other herbicides registered for PPI application on soybeans. For preplant incorporated applications, incorporation must be uniform and no deeper than 2 inches. Improper soil incorporation may result in erratic weed control and/or crop injury. When this product is applied in tank mix combination with other soybean herbicides, follow the incorporation directions for the tank mix partner(s). Follow applicable use instructions of each product used in the tank mixture.

### Fall Applications

LIBERTY S-I may be applied as a fall treatment to the stubble of harvested crops for the burndown of existing vegetation and preemergence control of labeled weeds the following spring in no-till and conservation tillage production systems. If weeds are emerged at the time of application, utilize a tank mixture with a suitable burndown herbicide at labeled rates. Fall applied burndown treatments should be made with a minimum of 15 gallons per acre to achieve adequate coverage of the weeds being treated. Gallonage should be increased where weed density is high or heavy crop residue levels are present. When making burndown applications to emerged weeds, the addition of adjuvants such as COC or MSO to the spray mixture can be used to enhance the burndown activity of the application. If weeds are present at time of application of this product, apply with appropriate burndown herbicides for improved control of existing weeds. Refer to product labels for use rates and instructions. For application rates of this product refer to either table (Table 1).

### Reduced Rates for GMO Soybeans (Roundup-Ready, Liberty-Link, or other glyphosate and/or glufosinate-tolerant varieties)

LIBERTY S-I may be used at reduced rates in conjunction with planned follow-up weed control applications with glyphosate and glufosinate based herbicide products labeled for use on the appropriate GMO soybean varieties. Follow all application directions for this product.

Apply before planting, at planting time or prior to seed germination. Properly closed seed furrows are necessary when applying at planting time or before seed germination. Recommended postemergence treatments may include any product or combination of products labeled for such use.

**Table 2:  
REDUCED RATE APPLICATIONS**

<b>LIBERTY S-I Use Rate Table for Reduced Rates Fall, Preplant, and Preemergence Applications</b>			
<b>Broadcast Rate</b>	<b>Fluid ounces LIBERTY S-I (lb ai sulfentrazone and lb ai imazethapyr) per acre</b>		
	<b>Soil Texture</b>		
<b>% Organic Matter*</b>	<b>Coarse*</b>	<b>Medium</b>	<b>Fine</b>
<1.0 – 2.0	4.0 (0.104 and 0.02)	4.0 – 5.0 (0.104 – 0.13 and 0.02 – 0.25)	5.0 – 6.0 (0.13 – 0.156 and 0.025 – 0.03)
2.0 – 4.0+	4.0 – 5.0 (0.104 – 0.13 and 0.02 – 0.25)	5.0 – 6.0 (0.13 – 0.156 and 0.025 – 0.03)	6.0 (0.156 and 0.03)
Refer to the following chart for information on soil type under the COARSE, MEDIUM, and FINE categories. Use higher rates for soils of pH less than 7.0 and the lowest rate for pH greater than 7.0 within the rate range. * Do not use on coarse soils classified as sand, which have less than 1% organic matter.			

**Preplant Weed Suppression for GMO Soybeans** (Roundup-Ready, Liberty-Link, or other glyphosate and/or glufosinate-tolerant varieties): Apply LIBERTY S-I alone or in a tank mixture with other registered, soil applied soybean herbicides, to reduce competition from weeds when followed by a planned postemergence application(s). Apply before planting, at plant or within 3 days after planting. Properly closed seed furrow is necessary to avoid potential crop response when applying at plant or after planting. Recommended postemergence treatments include any product or combination of products labeled to control specific weeds remaining in the field, including any glyphosate or glufosinate based herbicide labeled for use on soybean varieties. For applications greater than 30 days preplant use the higher application rate for the appropriate soil texture and organic matter. For herbicide tolerant or resistant weed species, use the highest labeled rate allowed of this product according to soil type, pH, and organic matter parameters.

**Note:** LIBERTY S-I is not for use after crop has emerged.

**Precautions**

Properly closed seed furrows are necessary when applying at planting time of before seed germination. The use directions are based on the interactive effects of LIBERTY S-I and the primary soil and environmental factors, which affect its activity on various weed species and tolerance among crops. The user is required to observe the instructions and recommendations presented under General Application Information, Soybean Application use directions, Product Use Rates, Rotational Guidelines, Weeds Controlled and other sections of this label pertinent to the anticipated use. It is important to note that not all cultivars have been tested with this product. Consult University or Extension specialists for additional information on specific local varieties and any other pertinent local information.

**Restrictions**

- Do not apply this product through any type of irrigation system.
- Do not apply more than 12.0 fluid ounces (0.312 lb ai sulfentrazone and 0.06 lb ai imazethapyr) per acre per application.
- Do not apply more than 12.0 fluid ounces (0.312 lb ai sulfentrazone and 0.06 lb ai imazethapyr) of this product per acre per 12 month period. This period is considered to begin with the initial sulfentrazone application.
- Do not apply to frozen soils.
- Do not feed treated soybean forage, soybean hay or soybean straw to livestock.



- Do not apply this product to soils classified as sand containing less than 1% organic matter.
- Do not drain or flush equipment on or near desirable trees or plants. Do not contaminate any body of water including irrigation water that may be used on other crops.
- Do not incorporate deeper than 2 inches.

If soybeans are furrow irrigated, till the soil prior to planting winter wheat or barley. The beds should be broken up and the soil mixed with tillage equipment set to operate 4 to 6 inches deep.

### DRY SHELLED BEANS AND PEAS

Navy, great northern, red kidney, black turtle, cranberry, pinto, lima, and small white type dry beans, adzuki, lentils, white lupins, chickpeas (garbanzo beans), dry edible peas, English and southern peas.

For use in the states east of and including: ND, SD, WY, CO, and NM (except the states east of and including VT, MA, and CT).

LIBERTY S-I can be used on dry edible peas, lentils, chickpeas, and lima beans in ID, MT, NV, OR, UT, and WA.

LIBERTY S-I can be used on chickpeas in AZ.

**Table 3-  
LIBERTY S-I Use Rate (Dry Shelled Beans and Peas)  
Fall or Spring Early Preplant, Preemergence, and Preplant Incorporated Applications**

Broadcast Rate	Fluid ounces Liberty S-I (lb ai sulfentrazone and lb ai imazethapyr) per acre		
% Organic Matter	Soil Texture		
	Coarse	Medium	Fine
<1.5%	2.75 – 3.6 (0.071 – 0.094 and 0.014 – 0.018)	3.6 – 5.4 (0.094 – 0.132 and 0.018 – 0.027)	3.6 – 5.4 (0.094 – 0.132 and 0.018 – 0.027)
1.5 – 3%	3.6 – 5.4 (0.094 – 0.132 and 0.018 – 0.027)	4.5 – 6.0 (0.117 – 0.156 and 0.022 – 0.03)	6.0 (0.156 and 0.03)
>3%	4.5 – 6.0 (0.117 – 0.156 and 0.022 – 0.03)	6.0 (0.156 and 0.03)	6.0 (0.156 and 0.03)
Refer to the previous information on soil types under the COARSE, MEDIUM, and FINE categories. Use higher rates for soils of pH less than 7.0 and the lowest rate for pH greater than 7.0 within the rate range.			

#### Early Preplant and Fall Applications:

LIBERTY S-I may be applied in the fall as a preplant treatment to control or suppress weeds prior to planting the following spring. This product should be applied to the stubble or soil surface and allow moisture from rainfall or snow to move the product into the soil. Do not mechanically incorporate in the fall or spring as this can destroy the herbicide barrier and weed escapes can occur. Do not apply to frozen soils or to existing snow cover to prevent runoff of this product from rain or snow melt that may occur following application. LIBERTY S-I may be tank mixed with other residual soil herbicides that are labeled for fall use on dry bean and dry peas. If weeds are emerged at the time of application of this product, use a burndown herbicide such as glyphosate or paraquat at the full-labeled rate in combination with this product or split application as needed. Select the appropriate rate from Table 3 above within the correct soil type and organic matter range. When applying this product in the fall, use a mid to high rate within the rate range for the appropriate soil type and organic matter.

#### Early Preplant and Preemergence (Spring Applications)

LIBERTY S-I may be applied preplant on the soil surface in the spring to control weeds in dry bean and dry peas.

LIBERTY S-I can be applied early preplant prior to planting up to 3 days after planting as a preemergence soil application if seedlings have not broken the soil surface and if the seed furrow is completely closed. This product can be tank mixed with other preemergence herbicides labeled for dry bean and dry peas use. If dry conditions persist following preemergence application of this product, a shallow incorporation may be needed to incorporate and activate the herbicide. If weeds are emerged at the time of application of this product, use a burndown herbicide at the full-labeled rate in combination with LIBERTY S-I or sequential application as needed.

### **Preplant Incorporated (PPI)**

LIBERTY S-I may be applied as a Preplant Incorporated treatment in the spring prior to planting in reduced and conventional tillage dry bean and dry pea. Do not incorporate to depths greater than 2 inches. Use rates for PPI applications of this product are similar to those used in preplant and preemergence applications. LIBERTY S-I can be tank mixed with other soil-applied herbicides labeled for use in dry bean or dry pea. It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

### **Weeds Controlled**

When applied according to directions, LIBERTY S-I will provide control of:

- Kochia (ALS and Triazine Resistant)
- Lambsquarters common
- Nightshade, Eastern black
- Pigweed red root
- Pigweed smooth

### **Precautions**

- When applying LIBERTY S-I to coarse textured soils, it is recommended that growers allow a minimum of 7 to 14 days from application to planting to reduce the risk of crop response.
- LIBERTY S-I must be activated by 0.5 to 1.0 inch of rainfall or irrigation water or erratic weed control will result. If adequate moisture (1/2 to 1 inch) is not received within 7 to 10 days after the LIBERTY S-I treatment, a shallow cultivation may be needed to aid in activation to obtain desired weed control. When sufficient moisture is received after dry conditions, this product will provide control of susceptible germinating weeds. Under extended periods of dry weather, adequate weed control may not be achieved.
- Some adverse crop response may occur on coarse textured soils with low organic matter (less than 1.5%) and pH of 7.0 or higher, or on highly eroded soils, hilltops, or in areas of calcareous outcroppings. LIBERTY S-I use rates should be reduced to 2.75 fluid ounces (0.071 lb ai sulfentrazone and 0.014 lb ai imazethapyr) per acre in those areas, or do not use. Inadequate seed furrow closure or shallow planting (less than 1.0 inch) may result in undesirable crop response. As expected, poor growing conditions such as excessive moisture, low temperatures, soil compaction and diseases may also cause undesirable crop response.
- These Crop Specific Use directions are based upon the interactive effects of LIBERTY S-I and the primary soil and environmental factors, which affect its activity on various weed species and tolerance among crops. The user is required to observe the instructions and guidance previously presented under General Application Instructions, General LIBERTY S-I Product Use Rates, Rotational Crop Guidelines, Replanting Instructions, Weed Controlled and any other section of this label pertinent to the anticipated crop use. It is important to note that not all varieties or cultivars of a given crop species have been evaluated under treatment with this product. Consult university or extension weed management specialists for additional information on specific local varieties or cultivars and any other pertinent information on † this product under specific local conditions.

### **Restrictions**

- Do not tank mix this product with other PPO chemistry herbicides.
- Do not apply more than 6 fluid ounces (0.156 lb ai sulfentrazone and 0.03 lb ai imazethapyr) per acre per application.

- Do not apply more than 6.0 fluid ounces (0.156 lb ai sulfentrazone ad 0.03 lb ai imazethapyr) total per twelve-month period. The twelve-month period is considered to begin upon the initial application of this product.
- Do not apply more than one application per year.
- Do not apply after crop emerges, or if the seedling is close to the soil surface. Do not incorporate to depths greater than 2 inches.
- Do not apply to frozen soils or to existing snow cover to prevent runoff of this product from rain or snow melt that may occur following application.
- Do not use on soils classified as sand, which have less than 1% organic matter.

## PEANUTS

### Southeastern United States Only (AL, AR, GA, LA, MS, NC, SC, TN, VA)

Apply LIBERTY S-I alone or in combination with other registered herbicides for the control of key grass and broadleaf weeds in peanut production. Refer to the information below for specific use directions. LIBERTY S-I is registered for use on peanuts only in the following states: AL, AR, GA, LA, MS, NC, SC, TN and VA.

### Application Instructions

LIBERTY S-I may be preplant incorporated (to a depth no greater than 2 inches) up to 14 days prior to planting. Incorporation of this product deeper than 2 inches can result in adverse crop response and/or inconsistent weed control. Alternatively, this product may be applied to the soil surface early preplant, at planting, or within 3 days after planting. Properly closed seed furrows are required when applying at planting time or before seed germination. When planting into soil treated preplant with this product, minimize soil disturbance to maintain the herbicide barrier on the soil surface to achieve maximum weed control. Do not use LIBERTY S-I for "at-crack" type applications or apply to expose peanut tissue. Such use can result in significant adverse crop response. This product is active against many broadleaf and grass weed species. For optimum performance, a combination of this product plus a grass herbicide labeled for peanuts is recommended when heavy grass pressure is anticipated. Under conditions of exceptionally high weed populations or when weeds not controlled by this product are anticipated, the use of suitable post-emergent peanut herbicides is recommended. Broadcast apply the correct use rate of this product from Table 4 below in a minimum of 10 gallons of water per acre of finished spray. Banded application rates of this product must be adjusted in proportion to the broadcast rate. It is the pesticide user's responsibility to ensure that all products in the listed mixtures are registered for the intended use. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

**Table 4-  
LIBERTY S-I Use Rate (Peanut)  
Early Preplant, Preemergence, and Preplant Incorporated Applications**

Broadcast Rate	Fluid ounces Liberty S-I (lb ai sulfentrazone and lb ai imazethapyr) per acre		
% Organic Matter	Soil Texture		
	Coarse	Medium	Fine
<1.5%	2.8 – 3.5 (0.073 – 0.091 and 0.014 – 0.017)	3.5 – 5.5 (0.019 – 0.143 and 0.017 – 0.027)	3.5 – 5.5 (0.019 – 0.143 and 0.017 – 0.027)
1.5 – 3%	3.5 – 5.5 (0.019 – 0.143 and 0.017 – 0.027)	4.5 – 7.3 (0.117 – 0.190 and 0.022 – 0.026)	5.5 – 7.3 (0.143 – 0.190 and 0.027 – 0.026)
>3%	4.5 – 7.3 (0.117 – 0.190 and 0.022 – 0.026)	5.5 – 7.3 (0.143 – 0.190 and 0.027 – 0.026)	6.0 – 9.5 (0.156 – 0.247 and 0.03 – 0.047)
Refer to the previous information on soil types under the COARSE, MEDIUM, and FINE categories. Use higher rates for soils of pH less than 7.0 and the lowest rate for pH greater than 7.0 within the rate range.			

## Precautions

LIBERTY S-I is especially effective against a wide range of economic broadleaf and grass weeds. The same processes that this product affects in these weeds can, under certain conditions, be affected in peanuts. These conditions include high pH (7.0 and above), cool weather, prolonged and excessive moisture, seedling diseases, and any other condition, including poor agronomic practices, that are unfavorable to vigorous crop growth. Such effects in peanuts are often observed as stunting and discoloration. The duration of these effects are somewhat dependent on the duration of the adverse growing conditions. These effects lessen and generally diminish with a return to normal growing conditions. Thorough coverage is essential for postemergence control of small susceptible broadleaf weeds. If thorough coverage is not achieved, postemergence weed control will be poor.

When used as directed, LIBERTY S-I will provide preemergence control of the following weeds refer to the WEEDS CONTROLLED section):

<b>COMMON NAME</b>	<b>SCIENTIFIC NAME</b>
<b>BROADLEAVES</b>	
Amaranth, Palmer	<i>Amaranthus palmeri</i>
Amaranth, spiny	<i>Amaranthus, spinosus</i>
Amaranth, spleen	<i>Amaranthus dubius</i>
Anoda, spurred	<i>Anoda cristata</i>
Cocklebur, common	<i>Xanthium strumarium</i>
Copperleaf, hophornbeam	<i>Acalypha ostryifolia</i>
Morningglory, Entireleaf	<i>Ipomea hederacea integriusc</i>
Morningglory, Ivyleaf	<i>Ipomea hederacea hederacea</i>
Morningglory, Palmleaf	<i>Ipomea Wrightii</i>
Morningglory, purple	<i>Ipomea turbinata</i>
Morningglory, red	<i>Ipomea coccinea</i>
Morningglory, scarlet	<i>Ipomea hederifolia</i>
Morningglory, tall	<i>Ipomea, purpurea</i>
Nightshade, black	<i>Solanum nigrum</i>
Nightshade, Eastern black	<i>Solanum americanum</i>
Pigweed, redroot	<i>Amaranthus retroflexus</i>
Pigweed, smooth	<i>Amaranthus hybridus</i>
Purslane, common	<i>Portulaca oleracea</i>
Side, prickly	<i>Sida spinosa</i>
Smartweed, PA (seedling)	<i>Polygonum pensylvanicum</i>
Spurges, Prostrate	<i>Euphorbia humistrata</i>
Spurges, Spotted	<i>Euphorbia maculata</i>
Waterhemp, common	<i>Amaranthus rudis</i>
Waterhemp, tall	<i>Amaranthus tuberculatos</i>
<b>GRASSES</b>	
Crabgrass, large	<i>Digitaria sanguinalis</i>
Crabgrass, small	
Crabgrass, southern	<i>Digitaria ciliaris</i>
Barnyardgrass	<i>Echinochloa crus-galli</i>
Goosegrass	<i>Eleusine indica</i>
Signalgrass, broadleaf	
Panicum, fall	<i>Panicum dichotomiflorum</i>
Panicum, Texas	<i>Panicum maximum</i>
<b>SEDGES</b>	
Nutsedge, purple	<i>Cyperus rotundus</i>
Nutsedge, yellow	<i>Cyperus esculentus</i>
Sedge, annual	<i>Cares spp.</i>

## Restrictions

- Do not apply this product after crop emergence, at cracking, or if the seedling is close to the soil surface, as undesirable crop response may occur.
- Do not apply more than 9.5 fluid ounces (0.247 lb ai sulfentrazone and 0.049 lb ai imazethapyr) per acre per application.
- Do not apply more than 9.5 fluid ounces (0.247 lb ai sulfentrazone and 0.049 lb ai imazethapyr) per acre of this product per twelve-month period. The twelve-month period is considered to begin upon the initial application of this product.
- Do not use on soils classified as sand, which have less than 1% organic matter.
- Do not apply to frozen soils or existing snow cover to prevent runoff of this product from rain or snowmelt that may occur following application.
- Do not apply after crop seed germination.
- Do not irrigate when peanuts are cracking

## STORAGE AND DISPOSAL

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

**Pesticide storage** - Store product in original container only, away from other pesticides, fertilizer, food or feed. Store in a cool dry place and avoid excess heat. Do not store below 32°F degrees.

**In Case of Spill** - Avoid contact. Isolate areas and keep out animals and unprotected persons.

**To Confine Spills** - Dike surrounding area, sweep up spillage, dispose of in accordance with information given under Pesticide Disposal. Wash spill area with water, absorb with sand, cat litter or commercial clay, sweep up and dispose of in an approved manner. Place damaged container in a large holding container. Identify contents per required hazardous waste labeling regulations.

**Pesticide Disposal** - Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture or rinsate is a violation of Federal law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency or the Hazardous Waste representative of the nearest EPA Regional Office for guidance.

### Container Handling

**NONREFILLABLE CONTAINER (EQUAL TO OR LESS THAN 5 GALLONS):** Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. **Triple rinse as follows:** Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Offer for recycling, if available or reconditioning if appropriate or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

**NONREFILLABLE CONTAINER (GREATER THAN 5 GALLONS):** Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. **Triple rinse as follows:** Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Offer for recycling, if available or reconditioning if appropriate or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

**Pressure rinse as follows:** Empty the remaining contents into application equipment or mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank, or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

**REFILLABLE CONTAINER:** Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump

for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times. After triple rinsing is complete, and the container is not suitable for refilling or reconditioning, offer the container for recycling if available, or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures approved by state and local authorities.

**CONDITION OF SALE AND LIMITATION OF WARRANTY AND LIABILITY**

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

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

To the extent consistent with applicable law, LIBERTY CROP PROTECTION, LLC warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use, subject to the inherent risks referred to above, when used in accordance with directions under normal use conditions. This warranty does not extend to the use of this product contrary to label instructions, or under abnormal conditions or under conditions not reasonably foreseeable to or beyond the control of Seller or LIBERTY CROP PROTECTION, LLC, and Buyer and User assume the risk of any such use. LIBERTY CROP PROTECTION, LLC MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE OR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS STATED ABOVE.

To the extent consistent with applicable law, neither LIBERTY CROP PROTECTION, LLC nor Seller shall be liable for any incidental, consequential or special damages resulting from the use or handling of this product. To the extent consistent with state law, THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF LIBERTY CROP PROTECTION, LLC AND SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT OR, AT THE ELECTION OF LIBERTY CROP PROTECTION, LLC OR SELLER, THE REPLACEMENT OF THE PRODUCT.

LIBERTY CROP PROTECTION, LLC and Seller offer this product, and Buyer and User accept it, subject to the foregoing conditions of Sale and Limitation of Warranty and Liability which may not be modified except by written agreement signed by a duly authorized representative of LIBERTY CROP PROTECTION, LLC.

All trademarks are the property of their respective owners.