



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY  
AND POLLUTION PREVENTION

March 1, 2023

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

Subject: Notification per PRN 98-10 – Correcting the misspelling of one heading, superscripts, and adding the missing signal word on the base labels  
Product Name: Liberty X-PENDI 3.3 EC  
EPA Registration Number: 89168-147  
Application Date: January 23, 2023  
Decision Number: 589721

Dear Ms. Endres:

The Agency is in receipt of your Application for Pesticide Notification under Pesticide Registration Notice (PRN) 98-10 for the above referenced product. The Registration Division (RD) has conducted a review of this request for its applicability under PRN 98-10 and finds that the action requested falls within the scope of PRN 98-10.

The label submitted with the application has been stamped “NOTIFICATION” and placed in our records.

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 (FIFRA) and is subject to review by the Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 CFR 156.10(a)(5) lists examples of statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product’s label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the Agency find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA approved registration, the website will be referred to the EPA’s Office of Enforcement and Compliance.

If you have any questions, please contact Jamie Harrington at (202) 566-2726 or by email at [harrington.jamie@epa.gov](mailto:harrington.jamie@epa.gov).

Sincerely,

A handwritten signature in blue ink that reads "Emily Schmid".

Emily Schmid, Product Manager 25  
Herbicide Branch  
Registration Division (7505P)  
Office of Pesticide Programs

**NOTIFICATION**

89168-147

The applicant has certified that no changes, other than those reported to the Agency have been made to the labeling. The Agency acknowledges this notification by letter dated:

3/1/2023

**PENDIMETHALIN** | **GROUP** | **3** | **HERBICIDE**

# LIBERTY X-PENDI 3.3 EC

**HERBICIDE  
FOR USE IN SELECTED CROPS**

<b>ACTIVE INGREDIENT:</b>	<b>% BY WT.</b>
Pendimethalin .....	37.4%
<b>OTHER INGREDIENTS*:</b> .....	<b>62.6%</b>
<b>TOTAL:</b> .....	<b>100.0%</b>

This product contains 3.3 pounds of pendimethalin per gallon.

\*Contains petroleum distillate.

**KEEP OUT OF REACH OF CHILDREN  
CAUTION / PRECAUCIÓN**

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 Chemical Spill, Leak, Fire, or Exposure, Call CHEMTREC (800) 424-9300.**

**[SEE INSIDE BOOKLET FOR ADDITIONAL PRECAUTIONARY STATEMENTS.]**  
**[See inside booklet for additional Precautionary Statements and Directions for Use.]**  
**[See inside label booklet for First Aid, Precautionary Statements and Directions for Use.]**

**EPA Reg. No.: 89168-147**

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

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

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

012323

**FOR USE IN ALFALFA (FORAGE, HAY OR SEED PRODUCTION) BEARING CITRUS FRUIT TREES, BEARING NUT TREES, BEARING POME FRUIT TREES, BEARING STONE FRUIT TREES, CARROTS, CORN (FIELD, POP, SEED, SWEET), COTTON, EDIBLE BEANS, FORAGE LEGUMES, FRUITING VEGETABLES (PEPPER, TOMATO), GARLIC, GRAIN SORGHUM, LEEK, LENTILS AND PEAS, MINT, NONBEARING FRUIT TREE AND NUT TREE CROPS, NONBEARING VINEYARDS, ONIONS AND SHALLOTS (DRY BULB, GREEN), PEANUTS, POTATOES, RICE, SOYBEANS, SUGARCANE, SUNFLOWERS, TOBACCO AND WHEAT.**

<b>FIRST AID</b>	
<b>IF SWALLOWED:</b>	<ul style="list-style-type: none"> <li>• Immediately call a poison control center or doctor for treatment advice.</li> <li>• <b>DO NOT</b> induce vomiting unless told to do so by a poison control center or doctor.</li> <li>• <b>DO NOT</b> give <b>any</b> liquid to the person.</li> <li>• <b>DO NOT</b> give anything by mouth to an unconscious person.</li> </ul>
<b>IF ON SKIN OR CLOTHING:</b>	<ul style="list-style-type: none"> <li>• Take off contaminated clothing.</li> <li>• Rinse skin immediately with plenty of water for 15 to 20 minutes.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
<b>IF IN EYES:</b>	<ul style="list-style-type: none"> <li>• Hold eyes open and rinse slowly and gently with water for 15 to 20 minutes.</li> <li>• Remove contact lenses, if present, after first 5 minutes; then continue rinsing eyes.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
<b>NOTE TO PHYSICIAN</b>	
Contains petroleum distillate. Vomiting may cause aspiration pneumonia.	
<b>HOTLINE NUMBER</b>	
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. For emergencies call the poison control center at <b>1-800-222-1222</b> . For non-emergency resource information concerning this product, call the National Pesticides Information Center (NPIC) at <b>1-800-858-7378</b> Monday – Friday 8 am – Noon Pacific Time, (NPIC Web site: <a href="http://www.npic.orst.edu">www.npic.orst.edu</a> ). For Chemical Spill, Leak, Fire or Exposure, call CHEMTREC <b>800-424-9300</b> .	

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

Harmful if swallowed or absorbed through skin. Causes moderate eye irritation. Avoid contact with eyes, skin or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove and wash contaminated clothing before reuse.

**PERSONAL PROTECTIVE EQUIPMENT (PPE)**

**Applicators and other handlers must wear:**

- Long-sleeved shirt and long pants
- Chemical-resistant gloves made of barrier laminate or viton ≥ 14 mils
- Shoes plus socks

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

**Engineering Controls:**

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.

<b>USER SAFETY RECOMMENDATIONS</b>	
<b>Users should:</b>	<ul style="list-style-type: none"> <li>• Wash hands with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet.</li> </ul>

- Remove clothing/PPE immediately if pesticide gets inside. 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

This product is toxic to fish. **DO NOT** apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean high water mark. Drift and runoff from treated areas may be hazardous to aquatic organisms in adjacent aquatic sites. **DO NOT** contaminate water when disposing of equipment washwaters or rinsate.

### Non-Target Organism Advisory Statement

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.

### Endangered Species Protection

If endangered plant species occur in proximity to the application site, the following mitigation measures are required:

- If applied by ground, leave an untreated buffer zone of 200 feet. The product must be applied using a low boom (20 inches above the ground) and ASAE fine to medium/coarse nozzles.
- If applied by air, leave an untreated buffer zone of 170 feet. Must use straight-stream nozzles (D-6 or larger); wind can be no more than 8 mph; and release height must be 15 feet or less.

To determine whether your county has an endangered species, consult the website <http://www.epa.gov/espp/usa-map.htm>.

Endangered Species Bulletins may also be obtained from extension offices or state pesticide agencies. If the bulletin is not available for your specific area, check with the appropriate local state agency to determine if known populations of endangered species occur in the area to be treated.

### PHYSICAL OR CHEMICAL HAZARDS

**DO NOT** mix or allow contact with oxidizing agents as a hazardous chemical reaction may occur.

### DIRECTIONS FOR USE

It is a violation of federal law to use this product in a manner inconsistent with its labeling. This label must be in the possession of the user at the time of pesticide application. **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 protection.

Observe all cautions and restrictions in this label and the labels of products used in combination with this product. The use of this product not consistent with this label can result in injury to crops, animals, or persons. Keep containers closed to avoid spills and contamination.

**DO NOT** allow spray to drift from the application site and contact people, structures people occupy at any time and the associated property, parks and recreation areas, non-target crops, aquatic and wetland areas, woodlands, pastures, rangelands, or animals.

**DO NOT** enter or allow other people (or pets) to enter the treated area until sprays have dried.

LIBERTY intends that this product may not be used for manufacturing products for application to turf and ornamentals.

LIBERTY does not recommend or authorize the use of this product in manufacturing, processing or preparing custom blends with other products for application to field and row crops or to orchard, grove, and vineyard crops.

### 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 24 hours.**

**Exception:** if the product is soil injected or soil incorporated, the Worker Protection Standard, under certain circumstances, allows workers to enter the treated area if there will be no contact with anything that has been treated.

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: long-sleeved shirt and long pants, chemical-resistant gloves made of barrier laminate or viton  $\geq$  14 mils, and shoes plus socks.

### WEED RESISTANCE MANAGEMENT

For resistance management, this product is a Group 3 herbicide. Any weed population may contain or develop plants naturally resistant to this product and other Group 3 herbicides. The resistant biotypes may dominate the weed population if these herbicides are used repeatedly in the same field. 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 3 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 including hoeing or tillage. Prevent movement of resistant weed seeds to other fields by cleaning harvesting and tillage equipment when moving between fields, and planting clean seed.
- If a weed pest population continues to progress after treatment with this product, discontinue use of this product, and switch to another management strategy or herbicide with a different mode of action, 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 844-425-8488.

## Management of Resistant 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.

## PRODUCT INFORMATION

LIBERTY X-PENDI 3.3 EC is a selective herbicide for controlling most annual grasses and certain broadleaf weeds as they germinate. Refer to **Table 1** for a complete list of controlled weeds. This product will not control established weeds.

**Table 1. Weeds Controlled**

(see crop sections for additional weeds controlled)

<b>Weeds controlled with LIBERTY X-PENDI 3.3 EC applied up to 4.8 pints (2 lb ai) per acre.</b>		
<b>Grass Weeds</b>		
Annual ryegrass	Foxtail, yellow	Panicum, fall
Barnyardgrass	Goosegrass	Panicum, Texas
Canarygrass*, <sup>b</sup>	Hairy chess*, <sup>a</sup>	Sandbur, field
Cheat*, <sup>b</sup>	Itchgrass*	Shattercane*
Crabgrass	Italian ryegrass*	Signalgrass*
Crowfootgrass	Japanese brome*, <sup>a</sup>	Wild proso millet*
Downy brome* (Cheatgrass)	Johnsongrass (seedling)	Witchgrass
Foxtail, giant	Jointed goatgrass*, <sup>a</sup>	Wolly cupgrass*
Foxtail, green	Oat, wild*	
<b>Broadleaf Weeds</b>		
Amaranth, Palmer	Lambsquarters, Common	Sheperdspurse*
Bugloss, small <sup>a</sup>	Lambsquarters, Slimleaf	Smartweed, Pennsylvania*
Carpetweed	London Rocket*	Spurge, Annual
Chickweed, Common*	Mustard, black <sup>b</sup>	Velvetleaf*
Henbit	Pigweed Species	Waterhemp Species
Kochia	Purslane	
Lady's Thumb	Pusley, Florida	
* Suppression, but controlled when this product use rate exceeds 4.8 pints (2 lb ai) per acre.		
a Neither suppressed nor controlled in California.		
b Not controlled in California.		
<b>Weeds controlled with LIBERTY X-PENDI 3.3 EC applied at 4.8 pints (2 lb ai) per acre or greater.</b>		
<b>Grass Weeds</b>		
Annual Bluegrass	Junglerice	Sprangletop, red
Browntop panicum	Lovegrass	Swollen fingergrass

Grass, Guinea <sup>b</sup>	Sprangletop, Mexican	
<b>Broadleaf Weeds</b>		
Dodder†	Morningglory**	Puncturevine
Fiddleneck	Prostrate, knotweed	
† For optimum dodder control, use the highest labeled rate of this product specified in the specific crop. **Suppression <sup>b</sup> Not controlled in California		

### Precautions

- Unusually cold, excessively wet, or hot and dry conditions that delay germination or extend germination over a long period of time can reduce weed control.
- Over application can result in crop-stand loss, crop injury, or soil residues.
- Uneven application or improper soil incorporation can decrease weed control or cause crop injury.
- Soil incorporation deeper than specified can reduce weed control.
- Seedling diseases, cold weather, excessive moisture, shallow or deep planting, low or high soil pH, high soil salt concentration, or drought can weaken seedlings and plants and increase the possibility of crop damage from this product. Under these conditions, crop yields can be reduced.

### Application Rate

Use rates for LIBERTY X-PENDI 3.3 EC when used alone, in tank mix, or sequential applications are given in **Crop-specific Information**. Use rates of this product vary by soil texture and organic matter. See **Table 2** for soil texture groupings used in this label.

**Table 2. Soil Texture Groups**

COARSE	MEDIUM	FINE
Sands Loamy sands Sandy loams	Sandy clay loams* Sandy clays Loams Silt loams Silt Silts	Silty clay loams* Silty clays Clay loams Clays
* Sometimes considered transitional soils and may be classified as either medium- or fine- textured soils.		
<b>Peat and Muck</b> soils: This product may be used on peat and muck soils, but weed control may be inconsistent and/or reduced. Use maximum labeled use rate allowed in the specific crop.		

### Application Timings

LIBERTY X-PENDI 3.3 EC will provide most effective weed control when applied by ground or aerial equipment and subsequently incorporated into soil within 7 days after application by rainfall, sprinkler irrigation, or mechanical tillage prior to weed seedling emergence from soil. This product can also be applied through chemigation, including flooded basin irrigation systems. This product is labeled for preplant surface, preplant incorporated, surface incorporated, preemergence, early postemergence, postemergence incorporated (CULTI-SPRAY) or layby treatment. See **Crop-specific Information** for specific application directions by crop.

**Preplant Surface Applications:** For use in minimum tillage or no-tillage production systems, apply LIBERTY X-PENDI 3.3 EC alone or in tank mixes up to 45 days before planting. When making early preplant surface applications (15 to 45 days prior to planting), this product should be tank mixed or followed by a postemergence herbicide application. Rainfall or sprinkler irrigation within 7 days after application is required to move this product into the upper soil surface where weed seeds germinate.

**Preplant Incorporated Application:** Apply LIBERTY X-PENDI 3.3 EC and incorporate into the upper (1 to 2 inches) soil surface up to 60 days before planting. Use an implement capable of giving uniform incorporation; two-pass incorporation usually results in a more consistent result.

**Surface Incorporated Application:** Uniformly apply LIBERTY X-PENDI 3.3 EC as broadcast or banded treatment to soil surface underneath established trees and/or in ground areas between trees rows. Within



7 days after application, incorporate into upper (1 to 2 inches) soil surface using either rainfall, sprinkler irrigation, or shallow mechanical incorporation using an implement capable of giving uniform incorporation; two-pass mechanical incorporation usually results in a more consistent result.

**Preemergence Surface Application:** Broadcast treatment uniformly to the soil surface at planting and up to 2 days after planting. Rainfall, sprinkler irrigation, or shallow mechanical incorporation within 7 days after application is required to move this product into the upper soil surface where weed seeds germinate. If adequate rainfall or irrigation does not occur and weed seedling emergence begins, a shallow cultivation or rotary hoeing will improve performance.

**Early Postemergence Application:** LIBERTY X-PENDI 3.3 EC must be applied prior to weed seedling emergence or in a tank mix with products that control the emerged weeds. 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. Refer to **Crop-specific Information** for specific postemergence application specified by crop.

**Postemergence Incorporated Application (CULTI-SPRAY):** Prior to application, crop must be cultivated in such a manner as to throw at least 1 inch of soil over the base of the crop plants. This will prevent direct contact of LIBERTY X-PENDI 3.3 EC and the zone of brace root formation. This product must be applied broadcast with a ground sprayer when crop is at least 4 inches tall up to layby. Use drop nozzles if crop foliage will prevent uniform coverage of the soil surface within the rows. Thoroughly and uniformly incorporate treatments of this product into the soil with:

1. a sweep-type or rolling cultivator set to provide thorough incorporation in the top 1 inch of soil, or
2. adequate overhead irrigation water or rainfall. See **Crop-specific Information (Corn and Grain Sorghum)** for more details on (CULTI-SPRAY) application.

**Layby Application:** Apply LIBERTY X-PENDI 3.3 EC directly to the soil between rows as a directed spray following the last normal cultivation (layby). See **Crop-specific Information** for more details on layby application.

**Split Applications:** LIBERTY X-PENDI 3.3 EC may be applied preplant incorporated up to 60 days prior to planting and followed by a preemergence application at planting or up to 2 days after planting. The total amount of this product applied per acre per season cannot exceed the highest labeled rate for any given soil type. See **Crop-specific Information** for more details on split applications.

**Fall Applications:** LIBERTY X-PENDI 3.3 EC may be used in fall application programs in certain crops. See **Crop-specific Information** for details on fall application timing.

### **Spraying Instructions**

LIBERTY X-PENDI 3.3 EC may be applied using either water or sprayable fluid fertilizer (including straight 32-0-0 or 28-0-0) as the spray carrier. Additionally, this product may be impregnated on dry bulk fertilizer. **DO NOT** use sprayable fluid fertilizer as a carrier after crop emergence unless the typical fertilizer burn symptoms on the crop are acceptable.

### **Aerial Applications**

Uniformly apply in 5 or more gallons of water per acre. Exercise caution to minimize drift. Spray drift can cause injury to sensitive crops. Use a flagman or an automatic mechanical flagging unit on the aircraft to avoid overlapping and possible crop injury. Refer to the **MANDATORY SPRAY DRIFT MANAGEMENT** section of the label for additional information.

### **Ground Applications (Broadcast)**

Uniformly apply with properly calibrated ground equipment in 10 or more gallons of water per acre or 20 or more gallons of liquid fertilizer per acre. Use sprayers equipped with appropriate nozzles that provide uniform and accurate spray distribution and minimize drift. Keep the bypass line on or near the bottom of the tank to minimize foaming. Nozzle and in-line screens must be no finer than 50 mesh. Application of this product during periods of gusty winds may result in uneven applications.



If liquid fertilizer/herbicide(s) mixture separates in the spray tank, clogged equipment and uneven application can result. Always predetermine the compatibility of this product alone or with other herbicides based on the following compatibility “jar test”:

1. Add 1 pint of fertilizer to a quart jar.
2. Add 1 to 4 teaspoon(s) of the Dry Flowable (DF), Wettable Powder (WP), Aqueous Solution (AS), Flowable (F) or Liquid (L) formulation (depending on mixing ratio required) to the liquid fertilizer. The number of teaspoons of the formulation to add can be determined by the following formula:

$$\frac{\text{lbs or pts of product/acre}}{\text{gallons of fertilizer/acre}} \times 11.4 = \text{number of teaspoons of herbicide to add to 1 pint of fertilizer}$$

3. Close the jar and agitate until the herbicide(s) are evenly dispersed in the liquid fertilizer. If the materials do not disperse well, it may be necessary to slurry the chemicals in water before adding to the fertilizer.
4. After dispersing the materials, add appropriate number of teaspoons of this product to the jar and shake well. Add water soluble concentrate herbicides to the mixture last and agitate. Let the mixture stand for 30 minutes and then observe the results. Look for signs of separation: an oily layer or globules, sludge, flakes or other precipitates.
5. Evaluate compatibility.
  - a. If the herbicide(s) and liquid fertilizer mixture does not separate, use this mixture in your spray tank.
  - b. If the mixture separates but mixes readily with shaking, the mixture can be used provided that good agitation is maintained in the spray tank.
  - c. If separation of the mixture occurs and agitation does not correct this problem, a compatibility agent is needed.
6. If the need for a compatibility agent is demonstrated, the following procedure is recommended: Using a clean quart jar, repeat step 1 above and add 1/2 teaspoon of the compatibility agent to the liquid fertilizer. Mix well and repeat steps 2, 3 and 4. If separation or precipitation occurs with the compatibility agent, **DO NOT** use this product with that specific liquid fertilizer.

### Ground Applications (Band)

Uniformly apply the broadcast equivalent rate and volume per acre. To determine these:

$$\frac{\text{Band Width in Inches}}{\text{Row Width in Inches}} \times \text{Broadcast Rate per Acre} = \text{Band Rate per Acre}$$

$$\frac{\text{Band Width in Inches}}{\text{Row Width in Inches}} \times \text{Broadcast Volume per Acre} = \text{Band Volume per Acre}$$

### Ground Applications (Dry Bulk Fertilizer)

Apply this product /dry bulk fertilizer mixtures only with ground equipment. Dry fertilizer blends containing mixtures of ammonium nitrate or limestone may be impregnated with this product. A minimum of 200 pounds of impregnated dry bulk fertilizer, excluding the weight of ammonium nitrate or limestone, must be applied per acre.

Use the following formula to determine the amount (in pints) of this product to be impregnated on a ton of dry bulk fertilizer based on the rate of fertilizer to be applied per acre:

$$\frac{2000}{\text{Pounds of Dry Fertilizer per Acre}} \times \text{Pints of LIBERTY X-PENDI 3.3 EC (Specified Rate per Acre)} = \text{Pints of LIBERTY X-PENDI 3.3 EC per Ton of Fertilizer}$$

To impregnate this product on bulk fertilizer, use a closed rotary-drum mixer or other commonly used dry bulk fertilizer blender equipped with suitable spray equipment. Spray nozzles must be placed to provide uniform coverage of this product onto the fertilizer during mixing.

Apply this product/dry bulk fertilizer mixture with an accurately calibrated dry fertilizer spreader. The LIBERTY X-PENDI 3.3 EC /dry bulk fertilizer mixture must be spread uniformly on the soil surface.

#### **Restrictions – Ground Applications**

- **DO NOT** apply this product postemergence in liquid fertilizers.
- **DO NOT** impregnate this product onto coated ammonium nitrate or limestone because these materials will not absorb the herbicide.

#### **Chemigation Applications via Sprinkler Irrigation Systems**

This product may be applied as a chemigation treatment through sprinkler irrigation systems. Refer to **Crop-specific Information** sections for individual crops.

Apply this product only through a sprinkler irrigation system of the following type: center pivot, lateral move, end tow, side (wheel) roll, traveler, big gun, solid set, or hand move.

Uniform distribution of irrigation water treated with this product is the sole responsibility of the applicator and is required to avoid crop injury, lack of herbicide effectiveness or illegal pesticide residues in the crop. If you have any questions about calibration, you should contact state extension service specialists, equipment manufacturers, or other experts.

The system must be properly calibrated (with water only) to ensure that the amount of this product applied corresponds to the specified rate. Apply this product in 1/2 to 3/4 inches of water during the first sprinkler set (use at least 1 inch of water in the states of Texas, New Mexico and Oklahoma). Maintain agitation in the injection nurse tank to keep a uniform herbicide suspension during application. When application is complete, flush the system with water.

#### **Chemigation Instructions (for low volume micro sprinklers)**

Output of low volume sprinkler equals 4 to 50 gallons per hour (gph) per emitter. Point of application must be above ground.

Irrigation system should run a sufficient amount of time prior to injection of this product to have all emitters functioning properly. After system is operating properly, length of injection should be such that at one period of time during the injection, the first and last emitters in the system contain water treated with this product. Add this product to the supply tank already filled with the volume of water required for the injection period. Maintain proper agitation in injection tank. This product should be mixed in clean water and injected down-line from filters. Following injection of this product, system should be flushed for a period of time sufficient to clear the line of this product. (If application of this product is made during a normal irrigation cycle, injection should be made during the last stage.)

#### **Chemigation Calibration (for low volume micro sprinklers)**

Calculation of use rate is based on wetted area around emitters - not on tree acres. To determine correct amount of this product, use the following formula:

1. Treated area per each emitter = A  
 $A = 3.14 \times (\text{radius} \times \text{radius})$
2. The area in square feet wet in each acre = B  
$$B = \frac{A \times \text{emitters/acre}}{144}$$
3. The total area (in square feet) wet by your system = C  
 $C = B \times \text{acres covered by system.}$
4. Rate per treated acre of this product  
(based on length of control desired) = R

Amount of this product to inject = S

$$S = \frac{C}{43,560} \times R = \text{Quarts of this product}$$

**Example:**

If the average distance from emitter to perimeter of wetted area measured one inch below soil surface is 13 inches, then

$$A = 3.14 \times (13'' \times 13''),$$

and  $A = 530.7$  square inches.

If there are 300 emitters per acre, then

$$B = \frac{530.7 \times 300}{144}$$

and  $B = 1105.6$  square feet wetted per acre.

If the system covers 20 acres, then

$$C = 1105.6 \text{ square feet per acre} \times 20 \text{ acres and}$$

$$C = 22,112 \text{ square feet wetted by system.}$$

If the desired application rate per treated acre is 2.4 quarts of this product, then

$$S = \frac{22,112}{43,560} \times 2.4$$

and  $S = 1.2$  quarts of this product should be injected into the system.

**Chemigation Systems Connected to Public Water Systems**

1. Public water system means a system for the provision to the public of piped water for human consumption if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days out of the year.
2. Chemigation systems connected to public water systems must contain a functional, reduced-pressure zone backflow preventer (RPZ) or the functional equivalent in the water supply line upstream from the point of pesticide introduction. As an option to the RPZ, the water from the public water system should be discharged into a reservoir tank prior to pesticide introduction. There shall be a complete physical break (air gap) between the outlet end of the fill pipe and the top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe.
3. All chemigation systems connected to public water systems must also follow restrictions listed in the preceding section titled **Chemigation**.

**Restrictions - Chemigation**

- A person knowledgeable of the chemigation system and responsible for its operation, or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.
- The pesticide injection pipeline must contain a functional, automatic quick-closing check valve to prevent the flow of fluid back toward the injection pump. It must also contain a functional, normally closed solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
- The sprinkler chemigation system must contain a functional check valve, vacuum relief valve, and low-pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow. In addition, systems must use a metering pump, including a positive displacement injection pump (e.g. diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.
- The sprinkler chemigation system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops or in cases where there is no water pump, when the water pressure decreases to the point where pesticide distribution is adversely affected.

- The irrigation line or water pump must include a functional pressure switch that will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.
- **DO NOT** apply this product via chemigation to crops unless specified in **Crop-specific Information** section.
- **DO NOT** apply this product through any other type of sprinkler irrigation system.
- **DO NOT** apply when wind speed favors drift beyond the area intended for treatment.
- **DO NOT** connect an irrigation system used for pesticide application to a public water system unless the pesticide label-prescribed safety devices for public water systems are in place.

### **Applications via Flooded Basin Irrigation Systems**

LIBERTY X-PENDI 3.3 EC may be applied via flooded basin irrigation systems, but only to the following crops: bearing and nonbearing fruit and nut trees, nonbearing vineyards, and alfalfa grown for forage, hay or seed production.

### **Use Instructions for Flooded Basin Irrigation**

1. This product may be applied through a flood basin irrigation system designed to uniformly distribute irrigation water along the soil surface. Solid set systems utilizing tall riser for overhead application are excluded.
2. Follow all label directions for this product regarding rates per acre, timing of application, and crop-specific restrictions.
3. A person knowledgeable of the chemigation system and responsible for its operation, or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.
4. Mix this product with water at a 1:1 ratio in the injection nurse tank to assist with product flowability. Maintain agitation in the injection nurse tank to keep a uniform herbicide suspension during application. When application is complete, flush the system with water.
5. Tail water (runoff water) from flood irrigation that contains this product should be re-circulated and contained in the field of initial application or used only on adjacent tree or vine crops or alfalfa for which this product is registered for this type of application.
6. Systems using a gravity-flow pesticide dispensing system must meter the pesticide in the water at the head of the field downstream of a hydraulic discontinuity, including a drop structure or weir box, to decrease potential for water source contamination from backflow.
7. Systems utilizing a pressurized water and pesticide injection system must meet the following requirements:
  - The system must contain a functional check valve, vacuum-relief valve, and low-pressure drain appropriately located in the irrigation pipe to prevent water source contamination from backflow.
  - The pesticide injection pipeline must contain a functional automatic quick closing check valve to prevent flow of fluids back towards the injection pump.
  - The pesticide injection pipeline must also contain a functional, normally closed solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
  - The system must contain a functional interlocking control to automatically shut off the pesticide injection pump when the water pump stops.
  - The irrigation pipe or water pump must include a functional pressure switch, which will stop the pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.
  - Systems must use a metering pump, including a positive displacement injection pump (e.g. diaphragm pump), of effective design and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.
  - Any alternative to the above safety devices must conform to the list of EPA-approved alternative devices.
8. Be sure to regularly measure the flow in the field to ensure the correct amount of this product is being metered into the irrigation water and also regularly monitor to ensure that treated water is being uniformly distributed across the field. Flow rates through metering devices and distribution of this product can vary with water temperature and speed of water flow across the field.

9. Uniform distribution of irrigation water treated with this product is the sole responsibility of the applicator and is required to avoid crop injury, lack of herbicide effectiveness, or illegal pesticide residues in the crop.
10. If you have questions about calibration, contact State Extension service specialists, equipment manufacturer or other expert.

#### **Restriction - Flooded Basin Irrigation**

- **DO NOT** connect an irrigation system used for pesticide application to a public water system unless the pesticide label-prescribed safety devices for public water systems are in place.

#### **MANDATORY SPRAY DRIFT MANAGEMENT**

##### **Aerial Applications**

- **DO NOT** release spray at a height greater than 10 feet above the crop canopy, unless a greater application height is necessary for pilot safety.
- Applicators are required to use a medium or coarser droplet size (ASABE S572.1).
- **DO NOT** apply when wind speeds exceed 15 mph at the application site. If the wind speed is greater than 10 mph, the boom length must be 65% 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.
- Applicators must use 1/2 swath displacement upwind at the downwind edge of the field.
- Nozzles must be oriented so the spray is directed toward the back of the aircraft.
- **DO NOT** apply during temperature inversions.

##### **Ground Boom Applications**

- Applicators must only apply with the nozzle height recommended by the manufacturer, but no more than 3 feet above the ground or crop canopy.
- Applicators are required to use a medium or coarser droplet size (ASABE S572.1).
- **DO NOT** apply when wind speeds exceed 15 mph at the application site.
- **DO NOT** apply during temperature inversions.

##### **Boom-less 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 mph 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 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.
- **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 drift.

### **Handheld Technology Applications**

- Take precautions to minimize spray drift.

### **BOOM HEIGHT – Ground Boom**

Use the lowest boom height that is compatible with the spray nozzle that will provide uniform coverage. 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, set up equipment to produce 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 OR WINDLESS CONDITIONS.

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

### **ADDITIVES**

Spray adjuvants have little or no influence on performance of LIBERTY X-PENDI 3.3 EC when applications are made prior to weed emergence. However, several tank mixes with this product require adjuvants to improve burndown of emerged weeds. Therefore, surfactants, liquid fertilizer (28%, 30%, or 32% UAN (urea ammonium nitrate) or ammonium sulfate), or crop oil concentrate may be used with this product tank mixes applied preplant, preemergence, or early postemergence to the crop. Follow the adjuvant specifications on the tank mix partner's label.

### **TANK MIXING INFORMATION**

LIBERTY X-PENDI 3.3 EC may be applied in a tank mix or a sequential application with other herbicides registered for use in a given crop. Refer to the companion label for weeds controlled in addition to this product alone. When using tank mixtures or sequential applications with this product, always read the companion product label(s) to determine the specific use rates by soil types, weed species, and weed or crop growth stage. Always perform a mixing test to check the compatibility of this product with all potential tank mix partners.

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.

### **Mixing Instructions**

1. Fill tank 1/2 to 3/4 full with clean water or liquid fertilizer and agitate. Prior to mixing this product or tank mixtures of this product in liquid fertilizer, refer to appropriate label sections for specified uses in liquid fertilizer, application instructions, and compatibility determinations.

**Note:** This product will not mix in high salt formulation fertilizers, such as 10-34-0. When utilizing high salt formulation fertilizers as the spray carrier, use one of the following:

- a. Pre-slurry this product in water prior to adding to tank; use 1:1 ratio of water to this product.
- b. Add water to fertilizer solution prior to adding this product. The amount of water should be equal to or greater than the amount of this product to be used.



## 2. **LIBERTY X-PENDI 3.3 EC Alone**

When using this product alone, add this product to the partially filled tank while agitating and then fill the remainder of the tank with water or liquid fertilizer.

## 3. **LIBERTY X-PENDI 3.3 EC Tank Mixes**

Add the tank mixture ingredients in the order listed below prior to adding this product (for tank mixtures with 2,4-DB, paraquat or glyphosate, see mixing instructions at the end of this section):

- a. **Wettable Powder (WP) formulations** - Make a slurry of the WP in water (1:2 ratio). Add the slurry slowly into the partially filled tank while agitating.
- b. **Dry Flowable (DF)/Water Dispersible Granule (WDG) formulations** - Add the granules to the partially filled tank while agitating. Make a slurry of the granules in water before adding to liquid fertilizer.
- c. **Flowable (F) formulations** - Add the F formulation to the partially filled tank while agitating.
- d. **Water Soluble Concentrate (WSC) formulations** - Add the WSC formulation to the partially filled tank while agitating.
- e. **Emulsifiable Concentrate (EC) formulations** - Add the EC formulation to the partially filled tank while agitating.

After complete mixing, add this product to the tank.

- f. **Note: For tank mixes including 2,4-DB, paraquat or glyphosate:** After complete mixing of this product, continue filling the sprayer with water and add 2,4-DB or paraquat or glyphosate near the end of the filling process.

If **paraquat** is included in the tank mixture, add 8 fluid ounces of non-ionic surfactant per 100 gallons of total spray mixture as the last ingredient in the tank. Fill the remainder of the tank with water or liquid fertilizer while agitating.

4. Thorough and continuous sprayer-tank agitation must be maintained during mixing and spraying of this product. If the spray mixture is allowed to settle for any period of time, thorough agitation is essential to resuspend the mixture before spraying is resumed. Continue agitation while spraying.

## **Cleaning Spray Equipment**

Clean application equipment thoroughly by using a strong detergent or commercial spray cleaner according to the manufacturer's directions, and then triple rinsing the equipment before and after applying this product.

## **Use Precautions:**

- This product is most effective in controlling weeds mechanically incorporated or when incorporated into the weed germination zone by adequate rainfall or overhead irrigation after application.
- This product will not control established weeds. Destroy emerged weeds prior to application.

## **Use Restrictions**

- **DO NOT** apply more than the maximum labeled rate of this product for any soil type listed in specific crop use directions.
- In the event of a crop loss due to adverse weather conditions or other reasons, any crop registered for a preplant incorporated application of this product can be replanted without adverse effects the same year (see **Crop Specific Information** for exceptions). If replanting is necessary, **DO NOT** work the soil deeper than the treated zone.
- Refer to **Crop-specific Information** for crop-specific preharvest intervals and feeding and grazing restrictions.

## **CROP ROTATION RESTRICTIONS**

- Use of this product in accordance with label directions is expected to result in normal growth of rotational crops in most situations; however, various environmental and agronomic factors, including arid conditions, make it impossible to eliminate all risks associated with the use of this product and, therefore, rotational crop injury is always possible. Soil characteristics and environmental conditions which may contribute to crop stress that may be accentuated by the use of this product include: coarse soils, compaction, high salinity, eroded knolls/hilltops, cold and/or wet soils, drought, and heavy rainfall soon after application.
- When this product is used in tank mix or sequential combinations, refer to labels of other herbicides for additional rotational crop restrictions. It is the pesticide user's responsibility to ensure that all products

in the listed mixtures 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.

- Restrictions for rotational cropping after the use of this product are dependent on the application use rate of this product in the primary crop. Read the following restrictions thoroughly to determine the rotational crops for each specific situation, according to application use rate.

## I. Rotational Crop Restrictions Following Applications of LIBERTY X-PENDI 3.3 EC to Field and Row Crops

### 1. Application Rate less than or equal to 4.8 pints (2.0 lb ai) per acre:

- a. Crops which are labeled for preplant incorporated application may be planted the same season in which this product was applied.

- b. **Sugar beets, Red beets and Spinach**

To avoid crop injury, **DO NOT** plant sugar beets, red beets or spinach for 12 months following a spring application of this product or 14 months following a fall application of this product.

These crops should not be planted for 18 months following a spring application of this product or 20 months following a fall application of this product if rainfall or irrigation was not sufficient to produce a crop.

To ensure thorough mixing of soil prior to planting sugar beets, red beets and spinach, land should be plowed using a moldboard plow to a depth of 12 inches.

- c. **Proso millet, Sorghum (milo), and Annual or Perennial grass crops or mixtures**

Proso millet, sorghum (milo), and annual or perennial grass crops or mixtures should not be planted for 10 months after a spring application of this product or 12 months after a fall application of this product except in the following conditions:

In the states of **Minnesota, North Dakota** and **South Dakota**, these crops should not be planted for 18 months following a spring application of this product or 21 months following a fall application of this product.

To avoid the possibility of crop injury in areas that receive less than 20 inches of rainfall or irrigation to produce a crop, these crops should not be planted for 18 months following a spring application of this product or 20 months following a fall application of this product if rainfall or irrigation was not sufficient to produce a field or row crop.

- d. **Wheat and Barley**

Wheat and barley may be planted 4 months after an application of this product, except under the following conditions:

If less than 12 inches of rainfall or overhead irrigation was received between application and rotational crop planting, wheat should not be planted before 12 months after a spring application of this product or 14 months after a fall application of this product.

In dryland areas and/or areas where irrigation is necessary to produce the crop treated with this product, **DO NOT** plant winter wheat or barley as a follow crop if crop failure/destruction occurs and land is fallowed during the summer.

- e. **All Other Rotational Crops Not Specifically Addressed Above**

Crops, other than those to which this product may be applied as a preplant incorporated treatment, may be planted the year following application of this product, except under the following condition:

If rainfall or irrigation was not sufficient to produce a crop, delay planting for 18 months following a spring application of this product or 20 months following a fall application of this product.

**2. Application Rate greater than 4.8 pints (2.0 lb ai) per acre:**

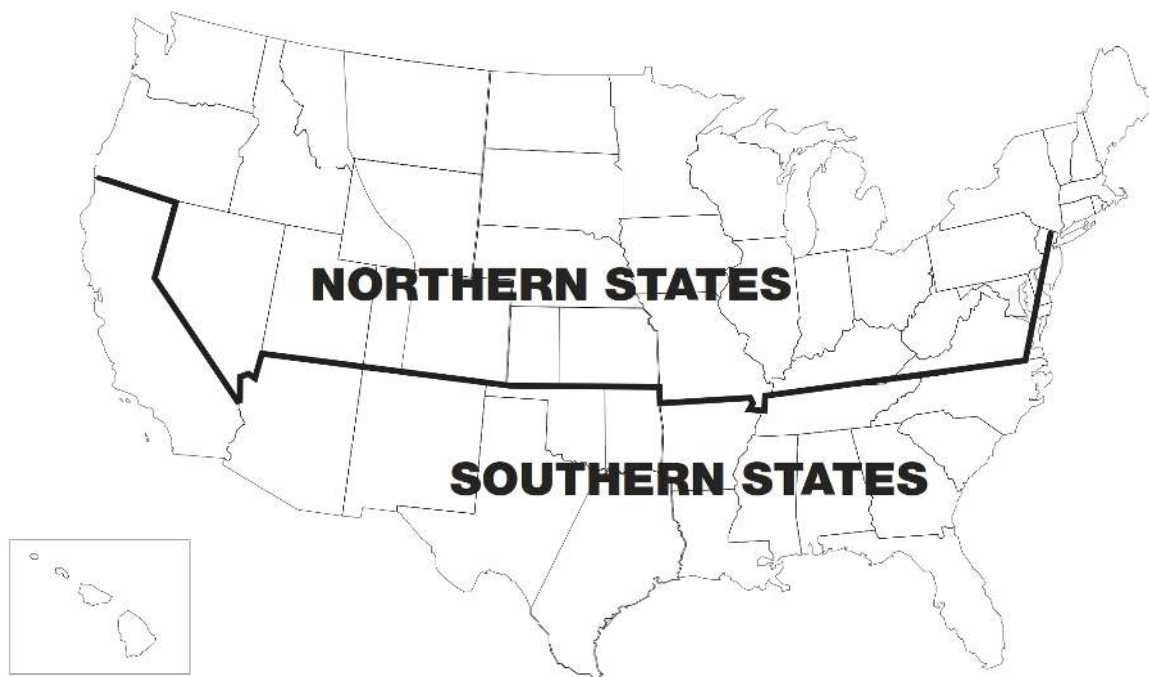
In the growing season following application of this product to field and row crops at greater than 4.8 pints per acre, plant only those crops for which this product is labeled for preplant incorporated treatment or crop injury may occur. **DO NOT** plant other crops for 24 months.

**II. Rotational Crop Restrictions Following Applications of LIBERTY X-PENDI 3.3 EC to Orchard, Grove, and Vineyard Crops**

In the growing season following application of this product to bearing fruit and nut trees, plant only those crops for which this product is labeled for preplant incorporated treatment or crop injury may occur.

**DO NOT** rotate to other crops (except for nut crops, fruit trees, or grapes) for 24 months following an application of this product to fruit or nut trees.

## Use Area



**Note:** Southern States includes Hawaii

### CROP-SPECIFIC INFORMATION

**Crop Injury Disclaimer:** Use of this product may result in crop injury, loss or damage to certain crops under a number of conditions, including but not limited to agronomic, cultural, mechanical, and environmental. Numerous risks of loss or damage to certain crops may be associated with the use of this product even when directions for use are followed completely. The user or grower should take all such risks into consideration before deciding to apply the product. **LIBERTY recommends testing on a small portion of the target crop to determine if damage is likely to occur.** Each grower who is considering the product for such use should test this product in order to determine its suitability. A grower should use this product only to the extent that in his sole opinion the benefit of this product use outweighs the potential injury to the grower's crop.

In addition, many factors can affect crop growth and/or yield, including but not limited to, insects, diseases, weed competition, poor seed quality, improper planting depth, mechanical cultivation, poor weather (including freezing or excessive wind, rain, heat, or cold), lack of or excessive moisture, crusting, fertility, or hardpans. Risk of loss or damage to crops may be associated with the use of this product and contribute to poor stands due to failure of crop to emerge, swelling of roots or other below-ground plant parts, less vigorous plant growth and development, and reduction in yield potential.

This product may also cause injury to sensitive rotational crops.

### **ALFALFA** **(Grown for Forage, Hay or Seed Production)**

LIBERTY X-PENDI 3.3 EC may be applied by ground, air, chemigation, flooded basin irrigation systems, or on dry bulk fertilizer.

#### **Use Directions**

**Established Alfalfa for Forage/Hay (defined as alfalfa planted in the fall or spring that has gone through a first cutting/mowing):** Uniformly apply this product at a broadcast rate of 2.4 to 9.6 pints (1 to 4 lb ai) per acre prior to weed emergence. Applications can be made in the fall after the last mowing/cutting, during winter dormancy, in the spring, or between cuttings. Applications should be made prior to the alfalfa reaching 6 inches in regrowth.

**Established Alfalfa Grown for Seed Production (defined as alfalfa planted in the fall or spring that has gone through a summer season of cutting/mowing):** Uniformly apply this product at a broadcast rate of 2.4 to 9.6 pints (1 to 4 lb ai) per acre prior to weed emergence in one of the following ways:

1. Apply to dormant established alfalfa.
2. Apply before alfalfa exceeds 10 inches in height after first mowing/beating.
3. Once the alfalfa reaches 10 inches in height or if the alfalfa has been mowed/beaten two or more times, **this product must be applied with drop nozzles** directing the spray so that there is little to no contact with the foliage.

**Seedling Alfalfa (defined as alfalfa planted in the fall or spring which has not gone through a cutting/mowing):** Uniformly apply this product at a broadcast rate of 1.2 to 2.4 pints (0.54 to 1.0 lb ai) per acre prior to weed emergence. Applications can be made once the seedling alfalfa has reached the 2<sup>nd</sup> trifoliate stage of growth. Applications should be made prior to the alfalfa reaching 6 inches in growth.

**Alfalfa Stand Establishment:** Apply this product at a broadcast rate of 1.2 to 1.8 pints (0.54 to 0.74 lb ai) per acre as a preplant incorporated or preemergence treatment in direct-seeded alfalfa. Some crop stand reduction and stunting may occur with this use of this product; however, reduced weed competition will allow establishment of a quality stand. Use the lower rates on coarse-texture soil or in lower rainfall areas (receiving less than 20 inches of rainfall and irrigation a year).

**Preplant incorporated:** Uniformly incorporate this product into the top 2 to 3 inches of the final seedbed prior to planting.

**Preemergence:** Apply directly after drill seeding alfalfa. Alfalfa should be planted into a seedbed that is firm and free of clods.

#### **Chemigation Applications**

This product may be applied through sprinkler irrigation systems. Follow all directions, special instructions and precautions in the section covering **Chemigation in Spraying Instructions**.

#### **Flooded Basin Irrigation Systems**

This product may be applied in flooded basin irrigation systems. Follow all directions, special instructions and precautions in the section covering **Flooded Basin Irrigation in Spraying Instructions**.

### Precautions

- Follow all precautions and restrictions on the labels of all products applied in combination with this product. Always follow the most restrictive label.
- Some stunting and chlorosis of the alfalfa may occur with postemergence applications.
- Applications made after the alfalfa exceeds 6 inches in height may result in poor weed control due to possible reduced spray coverage to the soil.

### Restrictions

- **DO NOT** apply more than 9.6 pints (4 lb ai) of this product per acre per application.
- **DO NOT** exceed 9.6 pints (4 lb ai) of this product per acre per year.
- **Preharvest Interval (PHI):**
  - Alfalfa for forage or hay: 50 days.
  - Alfalfa seed: 90 days.

### BEARING FRUIT AND NUT TREES

LIBERTY X-PENDI 3.3 EC may be applied in the following individual crops within the fruit tree and tree nut crop groupings:

**Citrus Fruit Crop Group 10-10:** Australian desert lime; Australian finger-lime; Australian round lime; Brown River finger lime; calamondin; citron; citrus hybrids; grapefruit; Japanese summer grapefruit; kumquat; lemon; lime; Mediterranean mandarin; mount white lime; New Guinea wild lime; orange, sour; orange, sweet; pummelo; Russell River lime; satsuma mandarin; sweet lime; tachibana orange; Tahiti lime; tangelo; tangerine (mandarin); tangor; trifoliate orange; uniq fruit; cultivars, varieties, and/or hybrids of these.

**Tree Nut Crop Group 14-12:** African nut-tree; almond; beechnut; Brazil nut; Brazilian pine; bunya; bur oak; butternut; Cajou nut; candlenut; cashew; chestnut; chinquapin; coconut; coquito nut; dika nut; ginkgo; Guiana chestnut; hazelnut (filbert); heartnut; hickory nut; Japanese horse-chestnut; macadamia nut; mongongo nut; monkey-pot; monkey puzzle nut; Okari nut; Pachira nut; peach palm nut; pecan; pequi; Pili nut; pine nut; pistachio; Sapucaia nut; tropical almond; walnut, black; walnut, English; yellowhorn; cultivars, varieties, and/or hybrids of these.

**Pome Fruits Crop Group 11-10:** Apple; azarole; crabapple; loquat; mayhaw; medlar; pear; pear, Asian; quince; quince, Chinese; quince, Japanese; tejocote; cultivars, varieties, and/or hybrids of these.

**Stone Fruits Crop Group 12-12:** Apricot; apricot, Japanese; capulin; cherry, black; cherry, Nanking; cherry, sweet; cherry, tart; Jujube, Chinese; nectarine; peach; plum; plum, American; plum, beach; plum, Canada; plum, cherry; plum, Chickasaw; plum, Damson; plum, Japanese; plum, Klamath; plum, prune; plumcot; sloe; cultivars, varieties, and/or hybrids of these.

**Other Fruit Trees:** Juneberry and Pomegranate

### Use Directions

LIBERTY X-PENDI 3.3 EC may only be applied by ground, chemigation or flooded basin irrigation systems.

This product may be applied either in a single application or sequentially with an interval of 30 days or more. Apply this product at between 4.8 to 9.6 pints (2 to 4 lb ai) per acre (depending on desired length of control, see chart below) per application.

### Use Rate (Pints per Acre):

Short-term control	4.8 (2 lb ai)
Long-term control	9.6 (4 lb ai)

### Ground Applications

This product may be applied surface incorporated or (surface) preemergence.

Apply this product as a broadcast or banded treatment using ground equipment before weed emergence. Apply the spray directly to the ground beneath the trees and/or in areas between rows.

### **Chemigation Applications**

This product may be applied through sprinkler irrigation systems. Follow all directions, special instructions and precautions in the general section covering **Chemigation in Spray Instructions**.

### **Flood Basin Irrigation Systems**

This product may be applied in flood basin irrigation systems. Follow all directions, special instructions and precautions in the general section **Flood Basin Irrigation in Spraying Instructions**.

### **Restrictions**

- **DO NOT** apply more than 9.6 pints (4 lb ai) of this product per application.
- **DO NOT** apply more than 9.6 pints (4 lb ai) of this product per acre per year in pome, stone and other fruit trees
- **DO NOT** apply more than 14.4 pints (6 lb ai) of this product per acre per year in citrus and nut trees.
- Sequential applications must be made at least 30 days apart.
- **DO NOT** apply by air.
- **DO NOT** feed forage or graze livestock in treated groves or orchards.
- **Preharvest Interval (PHI):**
  - Citrus Fruit: 1 day
  - Pome and stone fruit or other tree fruit: 60 days
  - Nuts, except almonds: 60 days
  - Almonds: 120 days
- **DO NOT** apply to newly seeded nursery stock.
- **DO NOT** apply over the top of trees with leaves or buds or fruit. Contact by the spray mixture with leaves, shoots or buds may cause injury.
- **DO NOT** apply irrigation water treated with this product over top of trees with leaves or buds or fruit. Contact with leaves, shoots or buds by spray mixture may cause injury.

## **CARROTS**

LIBERTY X-PENDI 3.3 EC may be applied by ground, air or chemigation.

### **Use Directions**

**Preemergence:** Make a single broadcast application by ground or by air or by chemigation at 2.4 pints (1 lb ai) per acre of this product as a postplant treatment prior to emergence of the crop and before weed emergence. Apply as a preemergence treatment within 2 days after planting.

**Layby:** This product may be applied only by ground equipment at layby (last mechanical cultivation) at 2.0 pints (0.8 lb ai) per acre as a directed spray to the soil between rows.

### **Layby Precautions**

- This product should be applied prior to weed emergence.
- Emerged weeds will not be controlled by this treatment.

### **Chemigation Applications**

This product may be applied through sprinkler irrigation systems. Follow all directions, special instructions and precautions in the general section covering **Chemigation in Spraying Instructions**.

### **Restrictions**

- **DO NOT** apply more than 2.4 pints (1 lb ai) of this product per acre per application.
- **DO NOT** apply more than 2.4 pints (1 lb ai) of this product per acre per year.
- **Preharvest Interval (PHI):** 60 days.
- **DO NOT** feed forage or graze livestock in treated fields.
- **DO NOT** apply as a broadcast spray over top of carrots or crop injury may result.
- **DO NOT** allow the spray to contact carrot plants or injury may occur.
- **DO NOT** allow irrigation water treated with this product to contact carrot plants.



- **DO NOT** apply layby applications by chemigation or by air.
- **DO NOT** apply tank mixtures through any type of irrigation system unless the label instructions on chemigation of all products are followed.

### **CARROTS GROWN FOR SEED PRODUCTION**

LIBERTY X-PENDI 3.3 EC may be applied only by layby.

#### **Use Directions**

**Last Cultivation (Layby):** Apply this product following the last normal mechanical cultivation (layby) at a rate of 1.2 to 4.8 pints (0.54 to 2 lb ai) per acre (on a broadcast basis). Uniformly apply as a directed spray to the soil between rows.

Layby applications can be applied to carrots previously treated with herbicides registered in/on carrots. Consult the labels of those herbicides for suggested treatments, rates to be used, and precautions or restrictions for use in carrots and for follow crop restrictions.

#### **Precautions**

- Use protective shields to avoid contact with carrot foliage.
- Use properly calibrated and accurate nozzles and equipment.

#### **Restrictions**

- **DO NOT** apply more than 4.8 pints (2 lb ai) per acre per application.
- **DO NOT** apply more than 4.8 pints (2 lb ai) per acre per year.
- **DO NOT** apply as a broadcast spray over top of carrots or crop injury may result.
- **DO NOT** apply layby applications by chemigation or by air.
- **Preharvest Interval (PHI):** 60 days.
- **DO NOT** feed, forage or graze livestock in treated fields.
- **DO NOT** harvest carrots for food or feed use.
- **DO NOT** allow the spray to contact carrot plants or injury may occur.

#### **SPECIAL CROP USE INSTRUCTIONS**

The pesticide applicator, the producer of the crop, and the seed conditioner must be aware that use of this product according to this labeling is deemed a nonfeed/nonfood use. If the applicator of this pesticide is not the producer, the applicator should provide a copy of this labeling to the producer of the crop. Producers of this crop who use this product, or cause the product to be used on a field they operate, should provide a copy of this pesticide label to the seed conditioner.

Consequently, no portion of this carrot seed crop, including but not limited to green chop, hay, pellets, meal, whole seed, cracked seed, roots, bulbs, foliage and seed screenings, may be used or distributed for food or feed purposes.

Processed carrot seed from a field treated with this product must bear a specific tag or conspicuous container labeling, or if shipped in bulk, on the shipment invoice or bill of lading, with the following statement: "Not for human consumption or animal feed." All seed screenings from seed processing shall be disposed of in such a manner that the screenings cannot be distributed or used for human food or animal feed purposes.

The seed conditioner shall keep records of screening disposal for three years from the date of disposal and shall furnish the records immediately upon request. Conditioner disposal records shall consist of documentation of on-farm disposal, disposal at a controlled dumpsite, incinerator, composter or other equivalent disposal site and shall include the lot numbers, amount of material disposed of, the grower(s), and the date of disposal.

**CORN**  
**(Field, Pop, Seed, Sweet)**

LIBERTY X-PENDI 3.3 EC may be applied by ground, air or chemigation.

LIBERTY X-PENDI 3.3 EC may be applied in conventional, minimum, or no-till as a preemergence, postemergence, or postemergence incorporated (CULTI-SPRAY) application in field corn.

LIBERTY X-PENDI 3.3 EC may be applied in conventional tillage as a preemergence or postemergence application in sweet corn, seed corn, or popcorn

**Regardless of tillage system, plant corn at least 1-1/2 inches deep and completely cover with soil.**

This product or this product in tank mix combination treatments are most effective in controlling weeds when adequate rainfall or overhead irrigation is received within 7 days after application. If cultivation is necessary because of soil crusting or weed germination, use shallow tillage and make certain corn seeds are below the tilled area.

**Precautions**

- In conventional tillage systems, plant into a seedbed that is firm and free of clods and trash. Use only where adequate tillage is practiced to provide good soil coverage of the corn seed.
- In no-till systems, utilize a no-till planter that is capable of planting through crop residue. The use of no-till planters under conditions that do not allow good soil coverage of the corn seed can result in reduced crop stand or injury if this product contacts the germinating corn seed. Check equipment to ensure good seed coverage.

**Additional Weeds Controlled:** In addition to the weeds listed in **Table 1**, this product will control the following weeds in corn with CULTI-SPRAY application: wild proso millet and shattercane.

**Use Directions**

**Preemergence:** Apply after planting but before weeds and crop emerge.

**Postemergence:** Apply postemergence until field corn is 30 inches tall (20 to 24 inches tall for pop, seed and sweet corn) or in the V8 growth stage, whichever is more restrictive. If the corn canopy prevents applications from reaching the soil, use drop nozzles and apply as a directed spray.

**CULTI-SPRAY:** Apply this product alone or this product plus atrazine when field corn is at least 4 inches tall until last cultivation (layby). This product plus atrazine must be applied before the field corn reaches 12 inches in height.

Under situations of low rainfall or soil moisture when deep germinating weeds including shattercane or field sandbur are anticipated, mechanical incorporation will provide best results. If cultivation is needed after application and incorporation of this product, the depth of cut should be no deeper than the depth of cut used to incorporate.

**Chemigation Applications**

This product may be applied through sprinkler irrigation systems. Follow all directions, special instructions and precautions in the section covering **Chemigation in Spraying Instructions**.

**Use Rates**

**Preemergence or Postemergence Applications**

Soil Texture	Organic Matter		
	< 1.5% (Pints per Acre)	1.5% to 3.0% (Pints per Acre)	> 3.0% (Pints per Acre)
Coarse	1.8 to 2.4 (0.74 to 1 lb ai)	2.4 to 3.6 (1 to 1.5 lb ai)	3.6 (1.5 lb ai)

Soil Texture	Organic Matter		
	< 1.5% (Pints per Acre)	1.5% to 3.0% (Pints per Acre)	> 3.0% (Pints per Acre)
Medium	2.4 to 3.6 (1 to 1.5 lb ai)	3.6 (1.5 lb ai)	3.6 to 4.8 (1.5 to 2 lb ai)
Fine	2.4 to 3.6 (1 to 1.5 lb ai)	3.6 to 4.8 (1.5 to 2 lb ai)	3.6 to 4.8 (1.5 to 2 lb ai)

#### CULTI-SPRAY Applications - Field Corn ONLY

Soil Texture	Southern States <u>States</u> <sup>1</sup> (Pints per Acre)	Northern States <u>States</u> <sup>1</sup> (Pints per Acre)
Coarse	1.2 to 1.8 (0.54 to 0.74 lb ai)	1.8 to 2.4 (0.74 to 1 lb ai)
Medium	1.8 to 2.4 (0.74 to 1 lb ai)	2.4 to 3.6 (1 to 1.5 lb ai)
Fine	1.8 to 3.6 (0.74 to 1.6 lb ai)	2.4 to 3.6 (1 to 1.5 lb ai)

<sup>1</sup> See **Use Area** map for specific states.

#### Restrictions

- **DO NOT** apply this product in reduced, minimum or no-till sweet corn, seed corn or popcorn.
- **DO NOT** apply this product in no-till in California.
- **DO NOT** apply preplant incorporated.
- **DO NOT** apply postemergence in liquid fertilizer.
- **DO NOT** exceed one application per year at the highest rate per acre for any given soil type and application method.
- **DO NOT** exceed 1.2 lb ai per acre of atrazine, as specified on the atrazine label.
- **DO NOT** allow livestock to graze or feed on treated corn within 21 days of last application.

#### COTTON

LIBERTY X-PENDI 3.3 EC may be applied by ground, air, or chemigation in conventional, minimum, stale seedbed, or no-till as a preplant surface, preplant incorporated, preemergence, or layby application in cotton.

Preplant surface, preemergence, and layby treatments are most effective in controlling weeds when adequate rainfall or overhead irrigation is received within 7 days after application. A shallow cultivation is recommended if soil crusting or soil compaction occurs. If weeds begin to germinate or adequate moisture is not received within 7 days after application, use shallow tillage (rotary hoe or light harrow) and make sure cotton seeds are below tilled area. The use of a postemergence herbicide treatment may be required to control weed escapes at planting or following cotton emergence.

**Additional Weeds Suppressed:** In addition to the weeds listed in **Table 1**, this product will suppress Russian thistle in the state of Arizona.

#### Use Directions

**Preplant Surface** - Apply this product up to 15 days prior to planting. Apply tank mixes of this product and sequential programs as specified under the tank mix section.

**Preplant Incorporated:** Apply this product up to 60 days prior to planting and incorporate within 7 days of application. Apply tank mixes of this product and sequential programs as specified under the tank mix section.

**Preemergence:** Apply this product at planting or up to 2 days after planting. Apply to a seedbed that is firm and free of clods. Apply tank mixes of this product and sequential programs as specified under the tank mix section.

**Preplant Incorporated followed by Preemergence:** Apply this product up to 60 days prior to planting and incorporate within 7 days of application. Apply overlay application of this product at planting or up to 2 days after planting. Total amount of this product applied per acre cannot exceed the highest labeled rate for a given soil type. Preplant incorporated and preemergence applications of this product may be applied with the labeled tank mix herbicide(s).

**Layby Application (at last cultivation) –** Apply this product directly to the soil between rows as a directed spray following the last normal cultivation (layby). Layby applications can be applied in cotton previously treated with this product or any herbicide(s) registered for use in cotton. Consult the labels of those herbicides for suggested treatments, rates to be used, and precautions or restrictions for use in cotton, and for follow-crop restrictions. The total amount of this product applied per acre per year cannot exceed the highest labeled rate for a given soil type.

Glyphosate-containing products may be applied with this product at layby in cotton with the glyphosate-resistant cotton gene.

**Layby Precautions**

- Avoid contact of the spray to the non-woody portion of cotton stems and to cotton foliage or serious crop injury can result.
- To reduce the potential for crop injury caused by herbicide contact with cotton foliage and stems, use protective shields when conditions favoring spray drift occur.

**Layby Restrictions**

- **DO NOT** apply as a broadcast spray over the top of the cotton or serious crop injury can result.
- **DO NOT** apply glyphosate-containing products at layby on non-glyphosate resistant cotton.
- **DO NOT** apply this product and glyphosate tank mix as a broadcast spray over the top of cotton or crop injury may result.

**Chemigation Applications**

This product may be applied through sprinkler irrigation systems. Follow all directions, special instructions and precautions in the section covering **Chemigation in Spraying Instructions**.

**Fall Application:** This product may be applied for weed control in cotton in the fall after October 15 (up to 140 days prior to planting cotton) in Arizona, California, Louisiana, New Mexico, Mississippi, Oklahoma and Texas. Apply this product at the broadcast rate of 2.4 pints (1 lb ai) per acre on coarse or medium soils and 3.6 pints (1.5 lb ai) per acre on fine soils.

**Use Rates**

Soil Texture	Conventional or Minimal Tillage (Pints per Acre)	No-Till <sup>2</sup> (Pints per Acre)
Coarse	1.2 to 2.4 <sup>1</sup> (0.54 to 1 lb ai)	1.8 to 2.4 (0.74 to 1 lb ai)
Medium	1.8 to 2.4 (0.74 to 1 lb ai)	2.4 to 3.6 (1 to 1.5 lbs ai)
Fine	2.4 to 3.6 (1 to 1.5 lb ai)	3.6 to 4.8 (1.5 to 2 lb ai)

<sup>1</sup> **DO NOT** exceed 1.8 pints (0.75 lb ai) per acre on coarse-textured soils in California.  
<sup>2</sup> Not-for use on soils with more than 3% organic matter.

**Restrictions**

- **DO NOT** apply this product in no-till in California.

- **DO NOT** exceed the highest rate per acre listed in the table above for any soil type.
- **Preharvest Interval (PHI):** 60 days.
- **DO NOT** feed forage or graze livestock in treated cotton fields.
- **DO NOT** exceed the highest yearly rate per acre for any given soil type.

### EDIBLE BEANS

**(Dry, Lima, Snap, Chickpeas (Garbanzo Beans), Southern Peas (Cowpeas), and Sweet Lupines)**

LIBERTY X-PENDI 3.3 EC may be applied (fall) preplant surface or preplant incorporated.

#### Use Directions

**Preplant Incorporated:** Apply up to 60 days prior to planting and incorporate within 7 days of application.

**Preemergence:** Apply only to sweet lupines at planting or up to 2 days after planting. Apply to a seedbed that is firm and free of clods.

#### Use Rates

Soil Texture	Southern States <sup>1</sup> (Pints per Acre)	Northern States <sup>1</sup>	
		<3% Organic Matter (Pints per Acre)	> 3% (Pints per Acre)
Coarse	1.8 (0.74 lb ai)	2.4 (1 lb ai)	2.4 (1 lb ai)
Medium	2.4 (1 lb ai)	3.0 (1.24 lb ai)	3.6 (1.5 lb ai)
Fine	3.6 (1.5 lb ai)	3.6 (1.5 lb ai)	3.6 (1.5 lb ai)

<sup>1</sup> See **Use Area** map for specific states.

**Fall Applications:** Fall preplant surface and preplant incorporated applications may be made in North Dakota, South Dakota, Minnesota, Oregon, Washington, Montana, Idaho, and Wyoming only. Rainfall or irrigation is required for incorporation and activation. Unpredictable weed control can be expected since factors including length of time between application and planting as well as uncontrollable weather factors will determine herbicide activity and longevity.

Apply this product and incorporate (rainfall, irrigation or mechanically) in late fall prior to planting edible beans [chickpeas (garbanzo beans)], dry beans (navy, great northern, red kidney, black turtle, cranberry, and small white type), lima beans, snap beans, Southern peas (cowpeas), and sweet lupines the following spring. Apply this product in the late fall when soil temperatures are 45° F or below but before the ground freezes.

#### Preplant Surface and Preplant Incorporated (Fall Application<sup>1</sup>) Use Rates

Soil Texture	Broadcast Rate <3% Organic Matter (Pints per Acre)	Broadcast Rate >3% Organic Matter (Pints per Acre)
Coarse	1.2 to 2.4 (0.54 to 1 lb ai)	2.4 (1 lb ai)
Medium	1.8 to 3.0 (0.74 to 1.24 lb ai)	3.0 to 3.6 (1.24 to 1.5 lb ai)
Fine	2.4 to 3.6 (1 to 1.5 lb ai)	3.6 (1.5 lb ai)

<sup>1</sup> For use in North Dakota, South Dakota, Minnesota, Oregon, Washington, Montana, Idaho and Wyoming ONLY.

**Restrictions**

- **DO NOT** exceed the highest rate per acre listed in the table above for any soil type.
- **DO NOT** feed lupine hay and forage or graze livestock in treated lupine fields.
- **DO NOT** apply this product more than once per year.
- **DO NOT** apply in any type of irrigation system.
- For fall applications, **DO NOT** apply when the air temperature is below 45°F.

**FORAGE LEGUMES**

LIBERTY X-PENDI 3.3 EC may be used in forage legumes used as a cover crop in federal set-aside or conservation reserve program areas.

**Use Directions**

This product may be applied preplant incorporated or preemergence for weed control in legume cover crops.

**Use Rates Preplant Incorporated or Preemergence**

Soil Texture	Broadcast Rate (Pints per Acre)
Coarse	1.2 to 1.8 (0.54 to .74 lb ai)
Medium	1.8 to 2.4 (0.74 to 1 lb ai)
Fine	2.4 to 3.0 (1 to 1.24 lb ai)

**Precautions**

- Some stand reduction of the legume cover crop may occur with this use. Consult local county extension service or the local ASC committee for recommended cover crops.
- If loss of cover crop occurs due to adverse weather conditions, any crop registered for preplant incorporated use of this product can be replanted the same year into soil treated with this product without adverse effects.
- The cover crop residue should ultimately be destroyed by tillage or left on the surface to retard erosion or as directed by the local ASC committee.

**Restrictions**

- **DO NOT** exceed the highest rate per acre listed in the table above for any soil type.
- **DO NOT** feed or graze legume cover crops established following application of this product.
- If replanting is necessary, **DO NOT** rework the soil deeper than the zone treated with this product.

**FRUITING VEGETABLES CROP GROUP 8-10**

African eggplant; bush tomato; bell pepper; cocona; currant tomato; eggplant; garden huckleberry; goji berry; groundcherry; martynia; naranjilla; okra; pea eggplant; pepino; non-bell pepper; roselle; scarlet eggplant; sunberry; tomatillo; tomato; tree tomato; cultivars, varieties, and/or hybrids of these

**Use Directions**

Uniformly apply this product only by ground or air as a broadcast preplant incorporated application, or as a broadcast preplant surface application prior to transplanting fruiting vegetables, or as a post-directed application to transplanted or established direct-seeded fruiting vegetables.

This product can be applied as a post-directed spray on the soil at the base of the plant, beneath plants, and between rows. Following the post-directed spray and when sufficient rainfall or irrigation does not occur to activate the herbicide, mechanically incorporate at the time of blocking and thinning or at "layby." this product should be applied prior to weed emergence.



### Use Rates

Soil Texture	Broadcast Rate (Pints per Acre)
Coarse	1.2 to 1.8 (0.54 to .74 lb ai)
Medium	1.8 to 2.4 (0.74 to 1 lb ai)
Fine	1.8 to 3.6 (0.74 to 1.5 lb ai)

### Precautions

- Avoid direct contact with foliage or stems.
- Be sure roots of transplants are established.
- Emerged weeds will not be controlled by this treatment.

### Restrictions

- **DO NOT** apply more than 3.6 pints (1.5 lb ai) per acre per year.
- **Preharvest Interval (PHI):** 70 days.
- **DO NOT** allow soil treated with this product to come in contact with transplant area.
- **DO NOT** apply if row is to later be covered with plastic.
- **DO NOT** apply prior to direct-seeded fruiting vegetables.
- **DO NOT** apply postemergence over the top of or to foliage of fruiting vegetables as severe injury may occur.

## GARLIC

LIBERTY X-PENDI 3.3 EC may be applied preemergence, postemergence, or split application by ground, air, or chemigation.

### Use Directions

**Preemergence:** After planting but before crop and weeds emerge.

**Postemergence:** 1st to 5th true-leaf growth stage.

**Split Application:** At both preemergence and postemergence timings.

### Chemigation Applications

This product may be applied through sprinkler irrigation systems. Apply between the 2nd and 9th true-leaf stage (2nd to 6th true-leaf stage in California). Follow all directions, special instructions and precautions in the section covering **Chemigation in Spraying Instructions**.

### Use Rates

Soil Texture	Broadcast Rate (Pints per Acre)
Coarse	1.8 (0.74 lb ai)
Medium	2.4 (1 lb ai)
Fine	3.6 (1.5 lb ai)

### Restrictions

- **DO NOT** exceed 3.6 pints (1.5 lb ai) per acre per year (except Idaho, Oregon, and Washington).
- **Preharvest Interval (PHI):** 60 days of harvest in California; 45 days in all other states.
- **DO NOT** feed or graze these crops.
- **DO NOT** irrigate in excess of 1/2 inch of water.

## GRAIN SORGHUM

Uniformly apply this product in water by ground equipment or by aircraft.

LIBERTY X-PENDI 3.3 EC may be applied as a postemergence incorporated (CULTI-SPRAY) application in grain sorghum grown in all states. In addition, this product may be applied early postemergence in grain sorghum grown in states east of the Mississippi River and in Arkansas, eastern Texas, Louisiana, and the Missouri “bootheel.”

**Additional Weeds Controlled:** In addition to the weeds listed in **Table 1**, this product as a CULTI-SPRAY application will control the following weeds in grain sorghum: wild proso millet and shattercane.

### Use Directions

**CULTI-SPRAY:** Treatments of this product can be applied from the 4-inch growth stage to as late as the last cultivation (layby) of grain sorghum. See specific directions for (CULTI-SPRAY) application under **Application Instructions**.

**Early Postemergence:** For use only in states east of the Mississippi River plus Arkansas, eastern Texas, Louisiana, and the “bootheel” of Missouri.

The seedbed should be firm and free of clods and trash. Use only where adequate tillage is practiced to provide good seed coverage. Plant grain sorghum at least 1-1/2 inches deep to ensure good seed coverage.

### Use Rates

#### CULTI-SPRAY Application

Soil Texture	Southern States <sup>1</sup> (Pints per Acre)	Northern States <sup>1</sup> (Pints per Acre)
Coarse	1.8 (0.74 lb ai)	2.4 (1 lb ai)
Medium	2.4 (1 lb ai)	3.6 (1.5 lb ai)
Fine	3.6 (1.5 lb ai)	3.6 (1.5 lb ai)

<sup>1</sup> See **Use Area** map for specific states.

#### Early Postemergence Application

Soil Texture	LIBERTY X-PENDI 3.3 EC (Pints per Acre)
Coarse	<b>DO NOT USE</b>
Medium, Fine	2.4 (1 lb ai)

### Restrictions

- **DO NOT** exceed the highest rate per acre listed in the tables above for any soil type.
- **DO NOT** apply this product preplant incorporated or preemergence.
- **DO NOT** apply this product as a CULTI-SPRAY treatment in grain sorghum planted in double row beds.
- **DO NOT** replant grain sorghum if crop loss occurs.
- **DO NOT** apply in liquid fertilizer.
- **DO NOT** apply this product in grain sorghum more than once per year.
- **DO NOT** Allow livestock to graze or feed on forage within 21 days of last application.

### GREEN ONIONS SUBGROUP 3-07B

Chive, fresh leaves; chive, Chinese, fresh leaves; elegans hosta; fritillaria, leaves; kurrat; lady's leek; leek; leek, wild; onion, Beltsville bunching; onion, fresh; onion, green; onion, macrostem; onion, tree, tops; onion, Welsh, tops; shallot, fresh leaves; cultivars, varieties, and/or hybrids of these

LIBERTY X-PENDI 3.3 EC may be applied preemergence, postemergence, or split application by ground, air, or chemigation.

#### Use Directions

Uniformly apply 2.4 pints (1 lb ai) per acre of this product as a broadcast spray to the soil surface as preemergence spray or as a postemergence spray to the crop at the 2 to 3 true- leaf stage at least 30 days before harvest. If this product is to be applied sequentially as both a preemergence and postemergence spray, the preemergence spray must be applied 30 days prior to the postemergence spray.

#### Chemigation Applications

This product may be applied through sprinkler irrigation systems. Apply at 2 to 3 true-leaf stage at least 30 days before harvest. Follow all directions, special instructions and precautions in the general section covering **Chemigation in Spraying Instructions**.

#### Restrictions

- **DO NOT** apply more than 2.4 pints (1 lb ai) per acre per application.
- **DO NOT** apply more than 4.8 pints (2 lb ai) per acre per year.
- **Preharvest Interval (PHI): DO NOT** apply within 30 days of harvest.
- **DO NOT** feed forage or graze livestock in treated fields.
- **DO NOT** irrigate in excess of 1/2 inch of water.

### LENTILS AND PEAS

(English, Dry, Garden, Dwarf, Green, Pigeon, and Edible Pod)

LIBERTY X-PENDI 3.3 EC may be applied (fall) preplant surface or preplant incorporated for weed control in lentils and peas.

#### Use Directions

**Preplant Incorporated** - This product may be applied 60 days prior to planting up to immediately before planting. After application, rotary hoeing and shallow cultivation/tillage can be practiced without reducing weed control. Avoid tillage that will bring untreated soil to the surface.

#### Use Rates

Soil Texture	Broadcast Rate (Pints per Acre)
Coarse	1.8 (0.74 lb ai)
Medium	2.4 (1 lb ai)
Fine	3.6 (1.5 lb ai)

**Fall Applications:** Fall preplant surface and preplant incorporated applications may be made in North Dakota, South Dakota, Minnesota, Oregon, Washington, Montana, Idaho, and Wyoming only. Rainfall or irrigation is required for incorporation and activation. Unpredictable weed control can be expected since factors including length of time between application and planting as well as uncontrollable weather factors will determine herbicide activity and longevity.

Apply this product and incorporate (via rainfall, irrigation or mechanically) in late fall prior to planting lentils or peas (English, dry, garden, dwarf, green, pigeon, and edible pod) the following spring. Apply this product in the late fall when soil temperatures are 45°F or below but before the ground freezes.

**Preplant Surface and Preplant Incorporated  
(Fall Application<sup>1</sup>) Use Rates**

<b>Soil Texture</b>	<b>Broadcast Rate (Pints per Acre)</b>
Coarse	1.2 to 1.8 (0.54 to 0.74 lb ai)
Medium	1.8 to 2.4 (0.74 to 1 lb ai)
Fine	2.4 to 3.6 (1 to 1.5 lb ai)
<sup>1</sup> For use in Idaho, Minnesota, Montana, North Dakota, Oregon, South Dakota, Washington, and Wyoming only.	

Any crop registered for a preplant incorporated application of this product can be double cropped after peas.

**Restrictions**

- **DO NOT** use in California.
- **DO NOT** apply this product preemergence in peas.
- **DO NOT** exceed the highest rate per acre listed in the tables above for any soil type.
- **DO NOT** apply this product more than once per year.
- **DO NOT** apply to peas, lentils, pea or lentil forage, pea silage, pea hay, or pea straw grown for livestock feed.
- **DO NOT** apply in any type of irrigation system.
- For fall applications, **DO NOT** apply when the air temperature is below 45°F.

**MINT  
(Peppermint and Spearmint)**

LIBERTY X-PENDI 3.3 EC may be applied by ground or air.

**Use Directions**

Make a single broadcast preemergence application of this product to mint at 1.8 to 4.8 pints (0.74 to 2 lb ai) per acre, depending on soil texture (see chart below), to dormant established mint before weed emergence.

**Use Rates**

<b>Soil Texture</b>	<b>Broadcast Rate (Pints per Acre)</b>
Coarse	1.8 to 2.4 (0.74 to 1 lb ai)
Medium	2.4 to 4.8 (1 to 2 lb ai)
Fine	2.4 to 4.8 (1 to 2 lb ai)

**Precautions**

- After an application of this product, some temporary crop injury may be observed early in the growing season as mint breaks dormancy and begins to grow.
- This product will not cause crop injury when applied according to the label under normal growing conditions.
- Non-uniform application may result in injury to crops, poor stands, or soil residues; conversely, uneven application may reduce weed control.
- Diseases, cold weather, excessive moisture, deep planting, low or high pH, salinity, or drought may weaken seedlings and plants and make them more susceptible to herbicidal damage.

### Restrictions

- **DO NOT** apply this product to “baby” mint in the first year of growth and establishment.
- **DO NOT** apply to mint that has broken dormancy or crop injury may result. Application to mint that is near dormancy break can result in crop injury. Risk of crop injury increases the closer application is to mint dormancy break.
- **DO NOT** apply to mint stands that have been weakened by age, disease, cold weather, excessive moisture, or other factors that reduce crop vigor. Mint growing under stress is more susceptible to herbicidal damage.
- **DO NOT** apply more than 4.8 pints (2 lb ai) per acre per year.
- **Preharvest Interval (PHI):** 90 days.
- **DO NOT** allow livestock to graze on treated spent hay or feed treated spent hay to livestock.
- **DO NOT** apply this product on mint through any type of irrigation system.
- **DO NOT** use in California except as directed in supplemental labeling.

### NONBEARING FRUIT AND NUT TREE CROPS and NONBEARING VINEYARDS

**Almond, Apple, Apricot, Cherry, Citrus, Grape, Grapefruit, Lemon, Nectarine, Orange, Peach, Pear, Pecan, Pistachio, Plum, Prune, Tangelo, Tangerine, Walnut, English**

LIBERTY X-PENDI 3.3 EC may be applied for preplant incorporated, preplant surface, surface incorporated or preemergence weed control in listed nonbearing fruit and nut tree crops and nonbearing vineyards. This product may be used before or after transplanting nonbearing crops listed above.

Apply the spray directly to the ground beneath the trees or vines.

This product may be applied by ground, air, chemigation or flooded basin irrigation systems.

### Use Directions

This product may be applied either in a single application or sequentially with an interval of 30 days or more. Apply this product at 4.8 to 9.6 pints (2 to 4 lb ai) per acre (depending on desired length of control, see chart below) per application.

**Preplant Surface:** Prior to transplanting, uniformly apply with ground or aerial equipment.

**Preplant Incorporated:** Uniformly apply this product prior to transplanting but before weeds emerge. Incorporate this product to a depth of 1 to 2 inches.

**Preemergence (postplant):** Applications may be in a band or broadcast.

### Chemigation Applications

This product may be applied through sprinkler irrigation systems. Follow all directions, special instructions and precautions in the section covering **Chemigation in Spraying Instructions**.

### Flooded Basin Irrigation Systems

This product may be applied in flooded basin irrigation systems. Follow all directions, special instructions and precautions in the section covering **Flooded Basin Irrigation in Spraying Instructions**.

### Use Rate (Pints per Acre)

Short-term control	4.8 (2 lb ai)
Long-term control	9.6 (4 lb ai)

### Precautions

- Avoid root contact with treated soil when placing transplants into the hole or injury may occur.
- Application and incorporation must be made prior to transplanting to avoid mechanical injury to the crop.

**Restrictions**

- **DO NOT** feed forage or graze livestock in treated fields.
- **DO NOT** apply more than 9.6 pints (4 lb ai) of this product per acre per year in pome, stone and other fruit trees.
- **DO NOT** apply more than 14.6 pints (6 lb ai) of this product per acre per year in citrus, nut trees and grapevines.
- **DO NOT** apply over the top of trees or vines with leaves or buds. Contacting leaves, shoots, or buds with the spray mixture may cause malformed plant tissue.
- **DO NOT** apply to newly seeded nursery stock.
- **DO NOT** apply irrigation water treated with this product over top of trees or vines with leaves or buds.

**Restrictions for newly transplanted and one-year-old grapevines:**

- Apply only to dormant grapevines.
- **DO NOT** apply if buds have started to swell. Application after buds have started to swell may result in leaf distortion.
- **DO NOT** apply to newly transplanted trees or vines until ground has settled and no cracks are present.

**ONIONS, DRY BULB SUBGROUP 3-07A**

**Daylily, bulb; fritillaria, bulb; garlic, bulb; garlic, great-headed, bulb; garlic, serpent, bulb; lily, bulb; onion, bulb; onion, Chinese, bulb; onion, pearl; onion, potato, bulb; shallot, bulb; cultivars, varieties, and/or hybrids of these**

LIBERTY X-PENDI 3.3 EC may be applied by ground, air or chemigation. Apply to direct-seeded and transplanted dry bulb onions.

**Use Directions****Chemigation Applications**

this product may be applied through sprinkler irrigation systems. Apply between the 2nd and 9th true-leaf stage (2nd to 6th true-leaf stage in California) unless otherwise specified below. Follow all directions, special instructions and precautions in the section covering **Chemigation** in **Spraying Instructions**.

**Restriction for Chemigation Applications**

- **DO NOT** irrigate in excess of 1/2 inch of water.

**Mineral Soils****Use Rates**

Soil Texture	Broadcast Rate (Pints per Acre)
Coarse	1.8 (0.74 lb ai)
Medium	2.4 (1 lb ai)
Fine	3.6 (1.5 lb ai)

**State-Specific Use Directions****In All States Except California:**

Apply this product as a broadcast treatment when onions or shallots have 2 to 9 true leaves.

**Additional Use in Colorado, Kansas, and Nebraska:**

This product may be applied sequentially in seeded onions. Apply first application of this product at loop stage. Apply sequential application of this product early postemergence (2nd to 9th true-leaf stage).

**Restrictions for Additional Use in Colorado, Kansas, and Nebraska**

- **DO NOT** exceed the maximum labeled rate for a given soil texture.
- **DO NOT** apply this product at loop stage through the 9th true-leaf stage if heavy rains are expected, or severe crop injury may result.



**Additional Use in Colorado and the High Plains of Texas:**

For transplanted onions only, apply and shallow incorporate (less than 2 inches deep) this product into preformed beds prior to transplanting.

**Additional Use in Idaho, Oregon, and Washington:**

Apply this product as a broadcast treatment when onions or shallots are between the flag leaf to 9th true-leaf stage.

This product may be used at 3.6 to 4.8 pints (1.5 to 2 lb ai) per acre for dodder control on medium- and fine-textured soils.

This product may be applied in the fall or spring to the furrow area of land bedded in the fall in preparation for planting seed of dry bulb onions the following spring. Apply this product as a banded application at rates based on appropriate soil texture. Band width should be approximately 1/2 the width of the row spacing. Keep this product away from the area where onion seed will be planted. Harrow-off tops of beds following furrow applications of this product prior to planting onions. For selective weed control in the onion row, apply this product as a banded postemergence application to flag leaf onions at the labeled rates based on soil texture. Apply this product only once to the furrow area and once to the onion row as a postemergence application.

**Restriction for Additional Use in Idaho, Oregon, and Washington**

- **DO NOT** apply this product using chemigation at the dodder control rate.

**Additional Use in Michigan:**

For mineral soils containing >10% organic matter, follow the directions for muck soils (see following).

**In California:**

This product may only be applied as a single application when onions or shallots have 2 to 6 true leaves.

**Restrictions (Mineral Soils)**

- **DO NOT** mechanically incorporate except as specified for use on dry bulb onions in Colorado and the Texas High Plains.
- **DO NOT** exceed 3.6 pints (1.5 lb ai) per acre per year (except Idaho, Oregon, and Washington).
- **Preharvest Interval (PHI):** 60 days California; 45 days in all other states.
- **DO NOT** feed or graze these crops.
- **DO NOT** apply this product preemergence through the loop stage if heavy rains are expected or severe crop injury may result. If irrigating immediately after application of this product at the preemergence through loop stage, **DO NOT** irrigate in excess of 1/2 inch of water.

**Muck Soils**

**Use Rates**

LIBERTY X-PENDI 3.3 EC may be applied sequentially on muck soils as follows:

Application Timing and Growth Stage	Rate (Pints per Acre)
Preemergence through Loop Stage	4.8 (2 lb ai)
Early Postemergence (2nd to 6th true-leaf stage)	
Late Postemergence (6th to 9th true-leaf stage)	

**Restrictions (Muck Soils)**

- **DO NOT** apply to muck soils in California.
- **Preharvest Interval (PHI):** 45 days.
- **DO NOT** feed or graze these crops.
- **DO NOT** apply more than 14.4 pints (5.94 lb ai) per acre per year on muck soils. To maximize crop safety, ensure good soil coverage during planting or transplanting and delay preemergence applications to the loop stage, if possible.

- **DO NOT** apply this product preemergence through the loop stage if heavy rains are expected or severe crop injury may result. If irrigating immediately after application of this product at the preemergence through loop stage, **DO NOT** irrigate in excess of 1/2 inch of water.
- **DO NOT** plant sugar beets, red beets, spinach, winter wheat, or winter barley as rotational crops on muck soils for 12 months from the time of last application if more than 3.6 pints (1.5 lb ai) per acre of this product is applied to the onion crop.
- **If loss** of onion crop occurs, **DO NOT** replant any crop other than onions in muck soil during the same cropping year and **DO NOT** work the soil deeper than 2 inches.

## PEANUTS

LIBERTY X-PENDI 3.3 EC may be applied by ground, air, or chemigation.

LIBERTY X-PENDI 3.3 EC may be applied preplant incorporated in peanuts.

LIBERTY X-PENDI 3.3 EC may also be applied preemergence to peanuts grown under overhead irrigation.

### Use Directions

**Preplant Incorporated:** Apply this product up to 60 days prior to planting and incorporate within 7 days after applications.

**Preemergence:** Apply this product at planting or up to 2 days after planting and before crop emergence. To prevent decreased crop pegging, adequate incorporation must be achieved by applying a minimum of 3/4 inch of overhead irrigation or rainfall within 48 hours of application.

### Chemigation Applications

This product may be applied through sprinkler irrigation systems. Follow all directions, special instructions and precautions in the section covering **Chemigation** in **Spraying Instructions**.

### Use Rates

Region	Rate (Pints per Acre)
Texas, Oklahoma and New Mexico	1.2 to 2.4 (0.54 to 1 lb ai)
Other peanut growing states*	2.4 (1 lb ai)
* For heavy weed infestations, especially of Texas panicum, up to 3.6 pints (1.5 lb ai) per acre of this product can be used in Alabama, Georgia or Florida.	

### Restrictions

- **DO NOT** use in California.
- **DO NOT** exceed the highest rate per acre listed in the table above per region.

## POTATOES

LIBERTY X-PENDI 3.3 EC may be applied by ground, air, or chemigation.

LIBERTY X-PENDI 3.3 EC may be applied preemergence, preemergence incorporated, or early postemergence in potatoes.

**Additional Weeds Controlled:** In addition to the weeds listed in **Table 1**, this product will control stinging nettle in potatoes.

### Use Directions

**Preemergence:** Apply this product after planting, but before potatoes and weeds emerge, or after dragoff.

**Preemergence Incorporated:** Apply this product and incorporate after planting but before potatoes and weeds emerge. Where dragoff is practiced, apply this product and incorporate before, at, or after dragoff, but before potatoes and weeds emerge. Incorporate this product within 7 days of application. This product must be thoroughly and uniformly incorporated into the top 1 to 2 inches of soil. Mechanical incorporation is not required if adequate rainfall for good crop and weed emergence occurs or irrigation is received within 7 days after application. Care must be taken so that incorporation equipment does not damage seed pieces or elongating sprouts.

**Early Postemergence:** Apply this product from crop emergence to the 6-inch stage of growth.

**Chemigation Applications**

This product may be applied through sprinkler irrigation systems. Apply this product preemergence after planting, after dragoff, or early postemergence through sprinkler irrigation systems. Follow all directions, special instructions and precautions in the section covering **Chemigation** in **Spraying Instructions**.

**Use Rates**

Soil Texture	< 3% Organic Matter > 3% (Pints per Acre)	
	Coarse	1.8 (0.74 lb ai)
Medium	2.4 (1 lb ai)	3.6 (1.5 lb ai)
Fine	3.6 (1.5 lb ai)	3.6 (1.5 lb ai)

**Precaution**

- Application of this product on White Rose variety potatoes during or followed by cool and/or wet weather conditions may result in crop injury.

**Restrictions**

- **DO NOT** apply to sweet potatoes or yams.
- **DO NOT** apply preplant.
- **DO NOT** exceed the highest rate per acre listed in the table above for any soil type.
- **DO NOT** make more than one application of this product per year.
- **DO NOT** apply this product postemergence if potatoes are under stress from cold/wet or hot/dry conditions or crop injury may occur.

**RICE**

LIBERTY X-PENDI 3.3 EC may be applied as a pre-flood, preemergence application in dry-seeded or drilled rice or as a delayed preemergence application in drilled dry-seeded rice or as an early postemergence application in dry-seeded rice. Treatments may be applied to conventional, reduced or minimum tillage, and no-till (stale seedbed) rice. The seedbed should be firm and free of clods and must be prepared to allow for good seed coverage. The use of a planter under conditions that do not allow good soil coverage of the rice seed can result in reduced stand or stunting if this product contacts germinating rice seed.

**Additional Weeds Controlled:** In addition to the weeds listed in **Table 1**, this product will control the following weeds in rice: junglerice and sprangletop.

**Use Directions**

**Pre-Flood, Preemergence:** This product may be applied for preemergence weed control as a pre-flood, pre-rice germination herbicide in lightly incorporated dry-seeded rice or on drilled rice.

**SEEDING DIRECTIONS:** For all rice seed incorporation methods, seed must be incorporated shallowly or no more than 1 inch below soil surface. Seed left on the surface may be injured or killed by this product. However, to ensure that seed is not covered too deeply, 15 to 20% of seed total must be visible at surface.

Increase seeding rates by a percentage corresponding to the amount of seed left on the surface. Adjust seeding ratios to meet individual practices, incorporation depths and field conditions.

**EXAMPLE:** Target seeding rate is 150 pounds per acre. If approximately 15% of seed is left on soil surface, seeding rate should then be increased 22.5 pounds per acre to 177.5 pounds per acre.

Seeding depths can be affected by soil textures, tillage practices, irrigation, and methods of mechanical incorporation. Seed that is incorporated either mechanically and/or by irrigation flush must remain at a shallow depth of no more than 1 inch below the soil surface. Fields where rice seed is incorporated too deeply will experience reduced crop stands.

Following are examples of typical implements that can be used for rice seed incorporation: rice roller/ridger, ring roller, light harrow, or flat roller. Regardless of the implement or method of incorporation used, seed incorporation must be less than 1 inch below the soil surface.

After rice seed is incorporated, uniformly apply to soil surface as broadcast spray the tank mixture of this product at 2.4 pints (1 lb ai) per acre plus FirstChoice® SafeGuard™ spray adjuvant at the labeled 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. Use of this product without tank mixing with FirstChoice® SafeGuard™ spray adjuvant can result in crop injury and loss of rice stand.

After herbicide application, flush field with irrigation water with method best employed to facilitate a thorough soaking of field and a rapid drain. Tail water (runoff water) from flood irrigation that contains this product should be re-circulated and contained in the field of initial application or used only on adjacent crops for which this product (or other pendimethalin-based products) is registered for use.

Rice seed covered with water for longer than 8 days may result in reduced stand and weed control.

**Delayed Preemergence:** Apply this product alone or with tank mix partner for delayed preemergence weed control in grain-drilled, dry-seeded rice. Apply this product alone or in tank mixture to levees after the levees are pulled and planted. Exposed seeds that come in contact with this product may be injured. Apply only when growing conditions favor vigorous rice growth. The seedbed should have adequate moisture for seed germination. Not for use in California.

Uniformly apply the specified rate of this product after rice planting and before rice and weed emergence (spiking). Apply after the rice seed has absorbed water and germinated and after the soil has been previously sealed over the seed by at least 1 inch of rainfall or by irrigation (flush). If the soil has not been sealed by rain or flush, apply when 80 percent of germinated seeds have a primary root (radicle) or shoot at least 1/2-inch long. If there is insufficient moisture, flush before application of this product to supply moisture for root (radicle) initiation and for vigorous rice and weed growth.

If applied to soil prior to these conditions or to cracked soil, stand reduction or stunting of rice may occur. Under some conditions, use of gibberellic acid-treated seed, heavy rainfall after application, or flushing after application may result in herbicide injury to rice. Rice can overcome moderate injury with appropriate cultural practices.

Due to the residual activity of this product, this treatment may be applied if rice is too small to maintain a flood on the field for weed control. However, proper water management practices must be followed for normal rice growth and activity of this product.

**Early Postemergence:** Apply this product as a tank mix partner. Base applications on weed and crop size guidelines of the tank mix partner. **DO NOT** apply to fields with standing water. If necessary, fields may be flushed prior to treatment to produce vigorous rice and weed growth. Since soil and weeds must be completely exposed to spray coverage, no flood water should be on the field at the time of application. Cloddy soil, standing water (puddles) at the time of application, or cracks in the soil that form after

application may result in reduced weed control. Because of residual activity of this product, this treatment may be applied if rice is too small to maintain a flood on the field for weed control. However, proper water management practices must be followed for normal rice growth and activity of this product.

Since the residual activity of this product is activated by moisture, this product is most effective in controlling emerging weeds when adequate rainfall or irrigation (flush) is received within 7 days after application.

### Use Rates

#### Delayed Preemergence Applications

Soil Texture	Rate (Pints per Acre)
Sands, loamy sands	<b>DO NOT USE</b>
Sandy loams	1.8 (0.74 lb ai)
Loams, silt loams, silts, sandy clay loams	2.4 (1 lb ai)
Silty clay loams, clay loams, sandy clays, silty clays, clays	2.4 (1 lb ai)

#### Early Postemergence Application

Soil Texture	Rate (Pints per Acre)
Coarse	1.8 (0.74 lb ai)
Medium	2.4 (1 lb ai)
Fine	2.4 (1 lb ai)

### Precautions

- In case of a crop failure due to weather conditions or disease following treatment with this product alone or in a tank mixture, only drilled dry-seeded rice may be immediately replanted; however, there is the potential for stand reduction or stunting. A 10 percent increase in seeding rate is suggested. Replant seed below the herbicide layer because reduced stand or stunting may occur if this product contacts germinating rice seed. **DO NOT** replant with gibberellic acid-treated seed. **DO NOT** reapply this product alone or in a tank mixture.
- **DO NOT** apply early preemergence nor preplant incorporated as severe rice injury is possible.
- **DO NOT** apply to stressed rice. Stress factors include cold or hot temperature extremes, excessive moisture or drought, problem soils, poor field drainage, or deep water after application.

### Restrictions

- **DO NOT** exceed the highest rate per acre listed in the tables above for any soil type.
- **DO NOT** apply this product as a pre-flood, preemergence treatment in rice unless tank mixed with FirstChoice® SafeGuard™ spray adjuvant.
- **DO NOT** apply this product through any type of irrigation system.
- **DO NOT** apply in liquid fertilizer.
- **DO NOT** use on water-seeded rice.
- **DO NOT** apply to rice fields if fields are used for fish production, especially catfish or crayfish farming.
- **DO NOT** use water containing residues of this product from rice cultivation to irrigate food or feed crops that are not registered for use with this product.
- **DO NOT** apply this product and then flush for germination.
- **DO NOT** feed forage or graze livestock in treated fields.

## SOYBEANS

LIBERTY X-PENDI 3.3 EC may be applied in conventional, minimum, or no-till as a fall surface, fall incorporated, preplant surface, preplant incorporated, or preemergence application in soybeans.

**Additional Weeds Controlled:** In addition to the weeds listed in **Table 1**, this product will control or reduce competition from the following weeds in soybeans: itchgrass and red rice. For specific rates for red rice and itchgrass management, see table at end of this section.

### Use Directions

**Fall Applied:** This product may be surface applied or incorporated in the fall, after fall harvest and prior to ground freeze in states north of I-80 and the entire states of Iowa, Illinois, Indiana, Kansas, Kentucky, Missouri, Nebraska, Ohio, Oklahoma, and Texas. Fall applications of LIBERTY X-PENDI 3.3 EC will not provide season-long weed control.

**Preplant Surface:** Apply this product up to 15 days prior to planting. This product may be applied up to 45 days prior to planting when used in a tank mix or applied sequentially with glyphosate + imazethapyr, imazamox or imazethapyr herbicides. Apply tank mixes of this product and sequential programs as specified under the tank mix section. 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.

**Preplant Incorporated:** Apply this product up to 60 days prior to planting and incorporate within 7 days after application.

**Preemergence:** Apply this product at planting or up to 2 days after planting. Apply to a firm seedbed free of clods.

### Preemergence Restriction

- **DO NOT** make applications of this product preemergence north of Interstate 80, except in the states of Indiana, Michigan and Ohio, or as specified in supplemental labeling.

### Use Rates

#### Fall Surface, Fall Incorporated, Preplant Surface, or Preplant Incorporated

Soil Texture	< 3% Organic Matter > 3% (Pints per Acre)	
Coarse	1.8 (0.74 lb ai)	2.4 (1 lb ai)
Medium	3.0 <sup>1</sup> (1.24 lb ai)	3.6 (1.5 lb ai)
Fine <sup>2</sup>	3.6 (1.5 lb ai)	3.6 (1.5 lb ai)

<sup>1</sup> **DO NOT** exceed 2.1 pints (0.87 lb ai) for southern states; see **Use Area** map for specific states.

<sup>2</sup> For heavy clay soils, apply this product at the broadcast rate of 3.6 pints (1.5 lb ai) per acre.

### Preemergence Applications

Soil Texture	< 3% Organic Matter > 3% (Pints per Acre)	
Coarse	1.8 (0.74 lb ai)	1.8 (0.74 lb ai)
Medium	2.4 (1 lb ai)	2.4 (1 lb ai)
Fine <sup>2</sup>	2.4 (1 lb ai)	3.0 (1.24 lb ai)



### Preplant Incorporated Applications for Red Rice Control and Itchgrass Suppression

Soil Texture	Up to 3% Organic Matter <sup>1</sup> (Pints per Acre)
Coarse	3.6 (1.5 lb ai)
Medium	3.6 (1.5 lb ai)
Fine	4.8 (2 lb ai)

<sup>1</sup> This use is not specified for soils with more than 3% organic matter.

Livestock can graze or be fed forage from treated soybean fields.

#### Restrictions

- **DO NOT** apply postemergence or serious crop injury can result.
- **DO NOT** use this product in soybeans in California.
- **DO NOT** exceed the highest rate per acre listed in the tables above for any soil type.
- **Preharvest Interval (PHI):** 85 days.
- **DO NOT** exceed one application per year at the highest rate per acre for any given soil type and application method.

#### STRAWBERRY

LIBERTY X-PENDI 3.3 EC may be applied by ground, air, or chemigation.

#### Use Directions

**Stunting, reduced growth, or reduction in daughter plants may occur with this use.** Uniformly apply 1.8 to 3.6 pints (0.74 to 1.5 lb ai) per acre of this product as a broadcast spray to the soil surface at pre-transplant time. A second application of 1.8 to 3.6 pints (0.74 to 1.5 lb ai) per acre of this product may be applied in a band to the soil between crop rows 35 days before harvest, but **DO NOT** concentrate the rate per acre into the treated area and **DO NOT** allow spray to contact strawberry plants. The second application rate is based on per unit of treated area.

#### Chemigation Applications

This product may be applied through sprinkler irrigation systems. Follow all directions, special instructions and precautions in the general section covering **Chemigation** in **Spraying Instructions**.

#### Use Rates

Soil Texture	Broadcast Rate (Pints per Acre)
Coarse	1.8 (0.74 lb ai)
Medium	2.4 to 3.0 (1 to 1.24 lb ai)
Fine	3.0 to 3.6 (1.24 to 1.5 lb ai)

#### Restrictions

- **DO NOT** apply more than 3.6 pints (1.5 lb ai) per acre per application.
- **DO NOT** apply more than 7.2 pints (3 lb ai) per acre per year.
- **DO NOT** make more than two applications per year.
- **Preharvest Interval (PHI):** 35 days.
- **DO NOT** feed forage or graze livestock in treated fields.
- **DO NOT** apply if row is to later be covered with plastic.
- **DO NOT** allow irrigation water treated with this product to contact strawberry plants.

## SUGARCANE

### Use Directions

LIBERTY X-PENDI 3.3 EC may be applied preemergence through layby to plant or ratoon sugarcane. Applications may be made band or broadcast. Although there may be adequate crop tolerance for postemergence applications at layby, the spray must be directed under the sugarcane canopy in order to obtain effective weed control.

This product must be thoroughly and uniformly incorporated into the soil with either (a) mechanical incorporation equipment as outlined below, or (b) with rainfall or irrigation, if rainfall or irrigation is adequate for good crop and weed emergence and received within 7 days after application. If rainfall or irrigation is not obtained, this product should be mechanically incorporated.

### Mechanical Incorporation

This product should be applied to loosened beds and incorporated into the top 1 to 2 inches of soil within 7 days after application.

### Use Rates

Use Area	Broadcast Rate <sup>1</sup> (Pints per Acre)
All states, except Hawaii	4.8 to 7.2 (2 to 3 lb ai)
Muck soils (Florida only)	4.8 to 9.7 (2 to 4 lb ai)
Hawaii	4.8 to 9.7 (2 to 4 lb ai)

<sup>1</sup> Use the high rate if: clay soils; no mechanical incorporation is planned; heavy weed populations are anticipated; itchgrass infestation is anticipated; shaving is planned.

### Restrictions

- **DO NOT** exceed 14.4 pints (6 lb ai) of this product per acre in one year.
- **DO NOT** use less than 11 gallons of water as a carrier when applying this product for weed control.
- Ratoon sugarcane must be lightly shaved in early spring to remove the old stubble before incorporation over the line of sugarcane is possible. Carefully adjust equipment to incorporate without causing excessive damage to emerging shoots.
- **DO NOT** make aerial applications at close-in because complete and uniform coverage cannot be obtained.
- **DO NOT** apply through any type of irrigation system.
- **Preharvest Interval (PHI):** 90 days.
- **DO NOT** graze treated fields or feed treated forage or fodder to livestock.

## SUNFLOWERS

LIBERTY X-PENDI 3.3 EC may be applied preplant incorporated in all states. Fall preplant incorporated applications may be made in North Dakota, South Dakota and Minnesota only. This product may be applied preemergence in conventional tillage sunflowers, except in the state of California.

**Plant sunflowers 1-1/2 to 2 inches deep and completely cover with soil.**

### Use Directions

**Preplant Incorporated (Spring):** Apply up to 60 days prior to planting and incorporate within 7 days after application.

**Preplant Incorporated (Fall applications in North Dakota, South Dakota and Minnesota):** Apply this product and immediately incorporate in late fall prior to planting sunflowers the following spring. Apply this product in the late fall when soil temperatures are 45°F or below but before the ground freezes.

Prior to sunflower planting in the spring, fields treated with this product should receive at least one shallow additional incorporation. Spring incorporation should be at an angle to the last tillage operation.

**Preemergence:** Apply this product at planting or up to 2 days after planting. If dry conditions with limited precipitation exist or unseasonably cool temperatures following planting are forecast, apply this product prior to planting and mechanically incorporate with tillage.

**Preemergence Precautions**

- Preemergence applications of this product to sunflowers may increase the likelihood of crop injury, especially when sunflowers are grown in stress situations, including compacted soils.
- Decreased herbicide performance compared to preplant incorporated applications may also result from a preemergence application.

**Use Rates**

**Preplant Incorporated (Spring) or Preemergence (Conventional Tillage)**

Soil Texture	Southern States <sup>1</sup> (Pints per Acre)	Northern States <sup>1</sup>	
		<3% Organic Matter >3% (Pints per Acre)	
Coarse	1.8 (0.74 lb ai)	2.4 (1 lb ai)	2.4 (1 lb ai)
Medium	2.4 (1 lb ai)	3.0 (1.24 lb ai)	3.6 (1.5 lb ai)
Fine	3.6 (1.5 lb ai)	3.6 (1.5 lb ai)	3.6 (1.5 lb ai)

<sup>1</sup> See **Use Area** map for specific states.

**Preplant Incorporated (Fall) Application<sup>1</sup>**

Soil Texture	< 3% Organic Matter > 3% (Pints per Acre)	
Coarse	3.0 (1.24 lb ai)	3.0 (1.24 lb ai)
Medium	3.6 (1.5 lb ai)	4.2 (1.7 lb ai)
Fine	4.2 (1.7 lb ai)	4.2 (1.7 lb ai)

<sup>1</sup> For use in North Dakota, South Dakota and Minnesota Only.

**Restrictions**

- For preplant incorporated, **DO NOT** apply when the air temperature is below 45°F.
- **DO NOT** exceed the highest rate per acre listed in the tables above for any soil type.

**NO-TILL SUNFLOWERS**

LIBERTY X-PENDI 3.3 EC may be applied at 3.6 pints (1.5 lb ai) per acre up to 30 days before planting (preplant) to immediately after planting (preemergence).

This product is most effective in controlling weeds when adequate rainfall or overhead irrigation is received within 7 days after application.

**Restrictions (all tillage types)**

- **DO NOT** apply this product postemergence.
- **DO NOT** feed forage or graze livestock in treated sunflower fields.
- **DO NOT** use in California.

## TOBACCO

LIBERTY X-PENDI 3.3 EC may be applied preplant incorporated or as a layby application in transplanted tobacco.

### Use Directions

**Preplant Incorporated:** Apply this product with ground sprayer up to 60 days prior to transplanting tobacco and incorporate within 7 days after application.

### Preplant Incorporated Precautions

- Applied according to directions and under normal growing conditions, this product will not harm transplanted tobacco.
- Under stress conditions for plant growth including cold/wet or hot/dry weather, this product can produce a temporary retardation of tobacco development.

**Layby:** This product may be applied as a directed spray following the last normal cultivation (layby), usually 4 to 6 weeks after transplanting tobacco. Apply this product in a 16- to 24-inch band between the crop rows.

### Layby Precaution

- The spray should not contact tobacco plants.

### Use Rates

#### Preplant Incorporated Application

Use Area	Soil Texture	Rate (Pints per Acre)
Florida Georgia Maryland North Carolina South Carolina Virginia	Coarse	2.4 (1 lb ai)
	Medium: sandy clay loams, loams	2.4 (1 lb ai)
	Medium: silt loams, silts	3.0 (1.24 lb ai)
	Fine	3.0 (1.24 lb ai)
Other states	Coarse	2.4 (1 lb ai)
	Medium	3.6 (1.5 lb ai)
	Fine	3.6 (1.5 lb ai)

#### Layby Application

Soil Texture	Broadcast Rate (Pints per Acre)
Coarse	1.8 (0.74 lb ai)
Medium	2.4 (1 lb ai)
Fine	2.4 (1 lb ai)

### Restrictions

- **DO NOT** apply as a broadcast spray as contact may cause malformed tobacco leaves.
- **DO NOT** exceed the highest rate per acre listed in the tables above for any soil type.

## WHEAT

LIBERTY X-PENDI 3.3 EC may be applied by ground or air.

LIBERTY X-PENDI 3.3 EC may be applied preemergence, delayed preemergence, or postemergence to wheat for weed control in fall, winter or spring seeded wheat.

### Use Directions

Apply to a seedbed that is firm and free of clods and trash. The seedbed **MUST** be prepared to ensure good seed coverage by the soil and seed-to-soil contact. Use high quality seed. When applications of this product are intended to be made preemergence or delayed preemergence, plant seed at least 1 inch deep to avoid possible crop injury, but not too deep for proper germination. When applications of this product are intended to be made postemergence, plant seed at least 1/2 to 1.0 inch to avoid crop injury.

Uniformly apply this product as a preemergence, or delayed preemergence (after wheat seed has germinated), or postemergence treatment from the 1st-leaf stage of wheat until before the flag leaf is visible/emerged for weed control. This product should be applied prior to weed emergence. Adequate rainfall or irrigation within 7 days after application will provide the most consistent weed control.

For control of established weeds, this product may be tank mixed with any postemergence herbicide registered for use in wheat. This product will provide residual control of the weeds listed in this label. 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. Always perform a mixing test to check the compatibility of this product with all potential tank mix partners.

### Use Rates

Soil Texture	Southern States <sup>1</sup> (Pints per Acre)	Northern States <sup>1</sup> (Pints per Acre)
Coarse	1.8 to 2.4 (0.74 to 1 lb ai)	1.8 (0.74 lb ai)
Medium	1.8 to 3.6 (0.74 to 1.5 lb ai)	3.0 (1.24 lb ai)
Fine	2.4 to 3.6 (1 to 1.5 lb ai)	2.4 to 3.6 (1 to 1.5 lb ai)

<sup>1</sup> See **Use Area** map for specific states.

### Precautions

- Emerged weeds will not be controlled by this treatment.

### Restrictions

- **DO NOT** apply more than 3.6 pints (1.5 lb ai) per acre per year.
- **Note:** If loss of grain crop occurs, any crop registered for this product preplant incorporated use may be replanted the same year without adverse effects.
- **DO NOT** replant wheat.
- **Preharvest Interval (PHI):**
  - Wheat grain or straw: 60 days.
  - Wheat hay: 28 days.
  - Wheat forage: 11 days.

## STORAGE AND DISPOSAL

**DO NOT** contaminate water, food, or feed by storage or disposal.

### **Pesticide Storage**

**DO NOT** store below 40°F. Extended storage at temperatures below 40° F can result in the formation of crystals on the bottom of the container. If crystallization does occur, store the container on its side at room temperature (70° F) and rock occasionally until crystals redissolve. In case of spill or leak on floor or paved surfaces, soak up with sand, earth, or synthetic absorbent. Remove to chemical waste area.

### **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 directions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at 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 (all sizes):** Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 psi for at least 30 seconds. Drain for 10 seconds after the flow begins to drip. Then offer for recycling if available or puncture and dispose of in a sanitary landfill or by incineration, or by other procedures allowed by state and local authorities.

**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% 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.

### **CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY**

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

The Directions for Use of this product 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.

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 TO THE EXTENT CONSISTENT WITH APPLICABLE LAW Buyer and User assume the risk of any such use. To the extent consistent with applicable law 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 APPLICABLE 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.

[BASE LABEL AFFIXED TO CONTAINER EQUAL TO OR LESS THAN 5 GALLONS]

PENDIMETHALIN GROUP 3 HERBICIDE

# LIBERTY X-PENDI 3.3 EC

HERBICIDE  
FOR USE IN SELECTED CROPS

ACTIVE INGREDIENT:	% BY WT.
Pendimethalin .....	37.4%
OTHER INGREDIENTS*:	62.6%
TOTAL:	100.0%

This product contains 3.3 pounds of pendimethalin per gallon.

\*Contains petroleum distillate.

## KEEP OUT OF REACH OF CHILDREN CAUTION / PRECAUCIÓN

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 Chemical Spill, Leak, Fire, or Exposure, Call CHEMTREC (800) 424-9300  
See inside booklet for additional Precautionary Statements and Directions for Use.

FIRST AID	
<b>IF SWALLOWED:</b>	Immediately call a poison control center or doctor for treatment advice. <b>DO NOT</b> induce vomiting unless told to do so by a poison control center or doctor. <b>DO NOT</b> give <b>any</b> liquid to the person. <b>DO NOT</b> give anything by mouth to an unconscious person.
<b>IF ON SKIN OR CLOTHING:</b>	Take off contaminated clothing. Rinse skin immediately with plenty of water for 15 to 20 minutes. Call a poison control center or doctor for treatment advice.
<b>IF IN EYES:</b>	Hold eyes open and rinse slowly and gently with water for 15 to 20 minutes. Remove contact lenses, if present, after first 5 minutes; then continue rinsing eyes. Call a poison control center or doctor for treatment advice.
<b>NOTE TO PHYSICIAN:</b> Contains petroleum distillate. Vomiting may cause aspiration pneumonia.	
<b>HOTLINE NUMBER:</b> Have the product container or label with you when calling a poison control center or doctor, or going for treatment. For emergencies call the poison control center at <b>1-800-222-1222</b> . For non-emergency resource information concerning this product, call the National Pesticides Information Center (NPIC) at <b>1-800-858-7378</b> Monday – Friday 8 am – Noon Pacific Time, (NPIC Web site: <a href="http://www.npic.orst.edu">www.npic.orst.edu</a> ). For Chemical Spill, Leak, Fire or Exposure, call CHEMTREC <b>800-424-9300</b> .	

### PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS

**CAUTION:** Harmful if swallowed or absorbed through skin. Causes moderate eye irritation. Avoid contact with eyes, skin or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove and wash contaminated clothing before reuse.

### USER SAFETY RECOMMENDATIONS

**Users should:** Wash hands with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove clothing/PPE immediately if pesticide gets inside. 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

This product is toxic to fish. **DO NOT** apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean high water mark. Drift and runoff from treated areas may be hazardous to aquatic organisms in adjacent aquatic sites. **DO NOT** contaminate water when disposing of equipment washwaters or rinsate.

Refer to label for Non-Target Organism Advisory and Endangered Species Protection statements.

### PHYSICAL OR CHEMICAL HAZARDS

**DO NOT** mix or allow contact with oxidizing agents as a hazardous chemical reaction may occur.

### STORAGE AND DISPOSAL

**DO NOT** contaminate water, food, or feed by storage or disposal.

**Pesticide Storage: DO NOT** store below 40°F. Extended storage at temperatures below 40° F can result in the formation of crystals on the bottom of the container. If crystallization does occur, store the container on its side at room temperature (70° F) and rock occasionally until crystals redissolve. In case of spill or leak on floor or paved surfaces, soak up with sand, earth, or synthetic absorbent. Remove to chemical waste area.

**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 directions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

#### Container Handling

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**Pressure rinse as follows (all sizes):** Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 psi for at least 30 seconds. Drain for 10 seconds after the flow begins to drip. Then offer for recycling if available or puncture and dispose of in a sanitary landfill or by incineration, or by other procedures allowed by state and local authorities.

EPA Reg. No.: 89168-147  
EPA Est. No.: \_\_\_\_\_  
NET CONTENTS: \_\_\_ Gal. (\_\_\_ L)

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

[BASE LABEL AFFIXED TO CONTAINER GREATER THAN 5 GALLONS OR RETURNABLE]

PENDIMETHALIN GROUP 3 HERBICIDE

# LIBERTY X-PENDI 3.3 EC

HERBICIDE  
FOR USE IN SELECTED CROPS

ACTIVE INGREDIENT:	% BY WT.
Pendimethalin .....	37.4%
OTHER INGREDIENTS*:	62.6%
TOTAL:	100.0%

This product contains 3.3 pounds of pendimethalin per gallon.

\*Contains petroleum distillate.

## KEEP OUT OF REACH OF CHILDREN CAUTION / PRECAUCIÓN

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle.  
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<b>IF ON SKIN OR CLOTHING:</b>	Take off contaminated clothing. Rinse skin immediately with plenty of water for 15 to 20 minutes. Call a poison control center or doctor for treatment advice.
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## ENVIRONMENTAL HAZARDS

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**Note to reviewer:** Either Option 1 or 2 will be used based on the amount of space available on the base label.

### Option 1:

#### Non-Target Organism Advisory Statement

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.

#### Endangered Species Protection

If endangered plant species occur in proximity to the application site, the following mitigation measures are required:

- If applied by ground, leave an untreated buffer zone of 200 feet. The product must be applied using a low boom (20 inches above the ground) and ASAE fine to medium/coarse nozzles.
- If applied by air, leave an untreated buffer zone of 170 feet. Must use straight-stream nozzles (D-6 or larger); wind can be no more than 8 mph; and release height must be 15 feet or less.

To determine whether your county has an endangered species, consult the website <http://www.epa.gov/espp/usa-map.htm>.

Endangered Species Bulletins may also be obtained from extension offices or state pesticide agencies. If the bulletin is not available for your specific area, check with the appropriate local state agency to determine if known populations of endangered species occur in the area to be treated.

### Option 2:

Refer to label for Non-Target Organism Advisory and Endangered Species Protection statements.

## PHYSICAL OR CHEMICAL HAZARDS

**DO NOT** mix or allow contact with oxidizing agents as a hazardous chemical reaction may occur.

## DIRECTIONS FOR USE

It is a violation of federal law to use this product in a manner inconsistent with its labeling. This label must be in the possession of the user at the time of pesticide application. **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 protection.

### [Optional: Agricultural Use Requirements]

#### 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 24 hours.**

**Exception:** if the product is soil injected or soil incorporated, the Worker Protection Standard, under certain circumstances, allows workers to enter the treated area if there will be no contact with anything that has been treated.

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: long-sleeved shirt and long pants, chemical-resistant gloves made of barrier laminate or viton  $\geq$  14 mils and shoes plus socks

### STORAGE AND DISPOSAL

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