



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY  
AND POLLUTION PREVENTION

January 18, 2023

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

Subject: Registration Review Label Amendments Incorporating Mitigation Measures from the Interim Decision for Metolachlor and the National Marine Fisheries Services' (NMFS) Biological Opinion on the Effects of Metolachlor on Pacific Salmonids  
*Product Name: LIBERTY METCHLORBUZIN*  
*EPA Registration Number: 89168-28*  
*Application Dates: 04/20/2021, 08/18/2021*  
*Decision Number: 587995 and 589240*

Dear Mary Beth Endres:

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

This letter also addresses the label mitigation resulting from the NMFS' Biological Opinion on the effects of Metolachlor on Pacific salmonids. The Agency has concluded that your submission is also acceptable. The label referred to above, submitted in connection with registration under FIFRA, as amended, is acceptable.

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

A stamped copy of your labeling is enclosed for your records. This labeling supersedes all previously accepted labeling. You must submit one copy of the final printed labeling before you release the product for shipment with the new labeling. In accordance with 40 CFR 152.130(c), you may distribute or sell this product under the previously approved labeling for 12 months from the date of this letter. After 12 months, you may only distribute or sell this product if it bears this new revised labeling or subsequently approved labeling. "To distribute or sell" is defined under FIFRA section 2(gg) and its implementing regulation at 40 CFR 152.3.

If you have any questions about this letter, please contact Anitha Kisanga at [Kisanga.Anitha@epa.gov](mailto:Kisanga.Anitha@epa.gov).

Sincerely,



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

Enclosure

METRIBUZIN	GROUP	5	HERBICIDE
METOLACHLOR	GROUP	15	HERBICIDE

# LIBERTY METCHLORBUZIN

## HERBICIDE

FOR USE IN (POTATOES), (TOMATOES) AND (SOYBEANS) FOR CONTROL OF CERTAIN GRASSES AND BROADLEAF WEEDS

ACTIVE INGREDIENTS:	% BY WT.
Metolachlor* .....	57.64%
Metribuzin** .....	14.13%
OTHER INGREDIENTS*** .....	28.23%
TOTAL: .....	100.00%

Contains 5.25 lbs. of metolachlor and 1.25 lbs. of metribuzin per gallon.

\*CAS No. 51218-45-2

\*\*CAS No. 21087-64-9

\*\*\*Contains petroleum distillates

**KEEP OUT OF REACH OF CHILDREN**

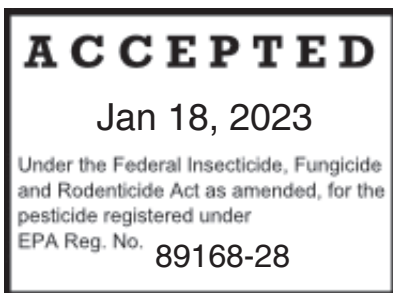
## WARNING / AVISO

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

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

SEE INSIDE BOOKLET FOR FIRST AID AND ADDITIONAL PRECAUTIONARY STATEMENTS.

Not for Sale, Sale Into, Distribution and/or Use in Nassau and Suffolk Counties of New York State.



EPA Reg. No.: 89168-28

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

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

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

111122

<b>FIRST AID</b>	
<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 15-20 minutes.</li> <li>• Call a poison control center or doctor for treatment advice</li> </ul>
<b>IF SWALLOWED:</b>	<ul style="list-style-type: none"> <li>• <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 any liquid to the person.</li> <li>• <b>DO NOT</b> give anything by mouth to an unconscious person.</li> <li>• Call a poison control center or doctor for further treatment advice</li> </ul>
<b>IF IN EYES:</b>	<ul style="list-style-type: none"> <li>• Hold eye open and rinse slowly and gently with water for 15 to 20 minutes.</li> <li>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
<b>IF INHALED:</b>	<ul style="list-style-type: none"> <li>• Move person to fresh air.</li> <li>• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible.</li> <li>• Call a poison control center or doctor for further treatment advice.</li> </ul>
<b>NOTE TO PHYSICIAN</b>	
May pose an aspiration pneumonia hazard. Contains petroleum distillate.	
<b>HOTLINE NUMBER</b>	
<p>Have the product container or label with you when calling a poison control center or doctor, or going for treatment. For emergency information concerning this product, call the National Pesticides Information Center (NPIC) at <b>1-800-858-7378</b> or your poison control center at <b>1-800-222-1222</b>. For Chemical Spill, Leak, Fire or Exposure, call CHEMTREC <b>800-424-9300</b>.</p>	

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

**WARNING.** Causes skin irritation. Harmful if swallowed. Cause moderate eye irritation. **DO NOT** get on skin or on clothing. Wear coveralls worn over short-sleeved shirt and short pants. Wear socks, chemical resistant footwear and chemical resistant gloves. 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. Avoid contact with eyes or clothing. Wear protective eyewear if appropriate. This product may cause skin sensitization reactions in some people.

**PERSONAL PROTECTIVE EQUIPMENT (PPE)**

**Applicators and other handlers must wear:**

- Coveralls over short-sleeved shirt and short pants
- Chemical-resistant gloves: (such as barrier laminate, butyl rubber >14 mils, nitrile rubber > 14 mils, or vitron > 14 mils.)
- Chemical-resistant footwear plus socks
- Chemical-resistant headgear for overhead exposure
- Chemical-resistant apron when cleaning equipment, mixing, or loading

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

**Engineering Controls:**

Mixers and loaders supporting aerial applications are required to use closed systems. The closed system must be used in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides (40 CFR 170.240(d)(4). When using the closed system, the mixers' and loaders' PPE requirements may be reduced or modified as specified in the WPS.

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

#### **USER SAFETY RECOMMENDATIONS**

##### **Users should:**

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

#### **ENVIRONMENTAL HAZARDS**

**DO NOT** apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. **DO NOT** contaminate water when disposing of equipment wash waters or rinsate. **DO NOT** apply when weather conditions favor drift from target area.

##### **Groundwater Advisory**

Metolachlor is known to leach through soil into groundwater under certain conditions as a result of label use. This chemical may leach into groundwater if used in areas where soils are permeable, particularly where the water table is shallow.

Metribuzin is a chemical which can travel (seep or leach) through soil and can contaminate ground water which may be used as drinking water. Metribuzin has been found in ground water as a result of agricultural use. Users are advised not to apply metribuzin where the water table (ground water) is close to the surface and where the soils are very permeable, i.e., well-drained soils such as loamy sands. Your local agricultural agencies can provide further information on the type of soil in your area and the location of ground water.

##### **Surface Water Advisory**

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

##### **Non-Target Organism Advisory**

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

##### **Reporting Ecological Incidents:**

To report ecological incidents, including mortality, injury, or harm to plants and animals, call 844-425-8488.

#### **DIRECTIONS FOR USE**

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. **DO NOT** apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation. For PRODUCT USE Information contact your local Liberty representative.

### **Endangered Species Protection Requirements:**

It is a Federal offense to use any pesticide in a manner that results in an unauthorized "take" (e.g., kill or otherwise harm) of an endangered species and certain threatened species, under the Endangered Species Act section 9. When using this product, you must follow the measures contained in the Endangered Species Protection Bulletin for the area in which you are applying the product. You must obtain a Bulletin no earlier than six months before using this product. To obtain Bulletins, consult <http://www.epa.gov/espp/>, call 1-844-447-3813, or email [ESPP@epa.gov](mailto:ESPP@epa.gov). You must use the Bulletin valid for the month in which you will apply the product

### **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.

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, wear:

- Coveralls.
- Chemical-resistant gloves barrier laminate, butyl rubber >14 mils, nitrile rubber > 14 mils, or vitron > 14 mils.
- Shoes plus socks.

**IMPORTANT:** FAILURE TO FOLLOW THE DIRECTIONS FOR USE AND PRECAUTIONS ON THIS LABEL MAY RESULT IN POOR WEED CONTROL, CROP INJURY, OR ILLEGAL RESIDUES.

**Not for Sale, Sale into, Distribution and/or Use in Nassau and Suffolk Counties of New York State.**

### **WEED RESISTANCE MANAGEMENT**

For resistance management, this product contains both a Group 5 (Metribuzin) and Group 15 (Metolachlor) herbicide. Any weed population may contain plants naturally resistant to Group 5 and/or Group 15 herbicides. The resistant individual may dominate the weed population if these herbicides are used repeatedly in the same fields. Appropriate resistance-management strategies should be followed.

#### **Weed Management**

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

- Rotate the use of this product or other Group 5 and Group 15 herbicides within a growing season sequence or among growing seasons with different herbicide groups that control the same weeds in the field.
- Use tank mixtures with herbicides from a different group if such use is permitted; where information on resistance in target weed species is available, use the less resistance-prone partner at a rate that will control the target weed(s) equally as well as the more resistance-prone partner. Consult your local extension service or certified crop advisor if you are unsure as to which active ingredient is currently less prone to resistance.
- Adopt an integrated weed-management program for herbicide use that includes scouting and uses historical information related to herbicide use and crop rotation, and that considers tillage (or other mechanical control methods), cultural (e.g., higher crop seeding rates; precision fertilizer application method and timing to favor the crop and not the weeds), biological (weed-competitive crops or varieties) and other management practices.

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

### Management of Resistant Biotypes

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

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

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

### Integrated Pest (Weed) Management

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

#### MANDATORY SPRAY DRIFT MANAGEMENT

##### Aerial Applications:

- **DO NOT** release spray at a height greater than 10 feet above the ground or vegetative canopy, unless a greater application height is necessary for pilot safety.
- Applicators are required to select the nozzle and pressure that deliver medium or coarser droplets (ASABE S641).
- If the wind speed is 10 miles per hour or less, applicators must use 1/2 swath displacement upwind at the downwind edge of the field. When the wind speed is between 11 to 15 miles per hour, applicators must use 3/4 swath displacement upwind at the downwind edge of the field.
- **DO NOT** apply when wind speeds exceed 15 mph at the application site. If the wind speed is greater than 10 mph, the boom length must be 65% or less of the wingspan for fixed wing aircraft and 75% or less of the rotor diameter for helicopters. Otherwise, the boom length must be 75% or less of the wingspan for fixed-wing aircraft and 90% or less of the rotor diameter for helicopters.

- **DO NOT** apply during temperature inversions.

**Ground Boom Applications:**

- User must only apply with the release height recommended by the manufacturer, but no more than 4 feet above the ground or crop canopy.
- Applicators are required to select the nozzles and pressure that deliver medium or coarser droplets (ASABE S572).
- **DO NOT** apply when wind speeds exceed 15 miles per hour at the application site.
- **DO NOT** apply during temperature inversions.

**Boomless Ground Applications:**

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

**SPRAY DRIFT ADVISORIES**

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

**IMPORTANCE OF DROPLET SIZE**

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

**Controlling Droplet Size – Ground Boom**

- **Volume** - Increasing the spray volume so that larger droplets are produced will reduce spray drift. Use the highest practical spray volume for the application. If a greater spray volume is needed, consider using a nozzle with a higher flow rate.
- **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 Drop 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.

**Boomless 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**

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

**RELEASE HEIGHT – Aircraft**

Higher release heights increase the potential for spray drift.

**SHIELDED SPRAYERS**

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

**TEMPERATURE AND HUMIDITY**

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

**TEMPERATURE INVERSIONS**

Drift potential is high during a temperature inversion. Temperature inversions are characterized by increasing temperature with altitude and are common on nights with limited cloud cover and light to no wind. The presence of an inversion can be indicated by ground fog or by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing. Avoid applications during temperature inversions.



## WIND

Drift potential generally increases with wind speed. AVOID APPLICATIONS DURING GUSTY WINDCONDITIONS.

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

## CHEMIGATION APPLICATION

LIBERTY METCHLORBUZIN may be applied through a center pivot irrigation system only. **DO NOT** apply LIBERTY METCHLORBUZIN through any other type of irrigation system. See the **Center Pivot Application** section of this label for more information.

## PRODUCT INFORMATION

**Mode of Action:** LIBERTY METCHLORBUZIN is a selective herbicide for the control or suppression of certain grass, broadleaf and sedge weeds in potatoes, tomatoes and soybeans. LIBERTY METCHLORBUZIN is a mixture of the active ingredients metolachlor and metribuzin. Metolachlor is a biosynthesis inhibitor (Group 15 mode of action) preventing cell division in emerging weeds. Metribuzin is a photosynthetic inhibitor (Group 5 mode of action) leading to disruption of photosynthesis and ultimately plant death.

**Activation:** LIBERTY METCHLORBUZIN must be activated by a small amount of soil moisture following application. In areas of low rainfall, a preemergence application should be followed with light irrigation of 0.25 to 0.5 inch of water. **DO NOT** apply heavy irrigation immediately after application. As with many surface-applied herbicides, weed control and crop tolerance may vary with rainfall and/or soil texture.

**Crop Rotation:** See the **Crop Rotation** section of this label for specific instructions on crop rotation. Crop injury may result if crop rotation guidelines are not followed.

**Replanting:** If replanting is necessary in fields previously treated with LIBERTY METCHLORBUZIN, the field may be replanted to potatoes, tomatoes, or soybeans. Before replanting, refer to the specific crop use sections for directions, precautions and restrictions about replanting.

**Application Rate Ranges:** Where a rate range is provided within a soil texture or organic matter classification, use a lower rate on soils that are relatively coarse-textured and/or low in organic matter. Use a higher rate on soils that are relatively fine-textured and/or high in organic matter.

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

## MIXING INSTRUCTIONS AND EQUIPMENT CLEANUP

**General:** Prepare no more spray mixture than is needed for the immediate operation. Thoroughly clean the spray equipment before using LIBERTY METCHLORBUZIN. Vigorous agitation is necessary to maintain uniformity of the spray mixture. Maintain maximum agitation throughout the spraying operation. **DO NOT** allow the spray mixture to stand overnight in the spray tank. Flush the spray equipment thoroughly following each use and apply the rinsate to a previously treated area.

**Mixing and Loading:** Use care when mixing or loading LIBERTY METCHLORBUZIN to prevent back-siphoning into wells, spills, or improper disposal of excess pesticide, spray mixtures, or rinsates. Check-valves or antisiphoning devices must be used on all mixing and/or irrigation equipment.

LIBERTY METCHLORBUZIN may not be mixed or loaded within 50 feet of perennial or intermittent streams and rivers, natural or impounded lakes and reservoirs. LIBERTY METCHLORBUZIN may not be mixed/loaded or used within 50 feet of all wells, including abandoned wells, drainage wells, and sink holes. Operations that involve mixing, loading, rinsing, or washing of LIBERTY METCHLORBUZIN into or from pesticide handling or application equipment or containers within 50 feet of any well are prohibited, unless

conducted on an impervious pad constructed to withstand the weight of the heaviest load that may be positioned on or moved across the pad. Such a pad shall be designed and maintained to contain any product spills or equipment leaks, container or equipment rinse or wash water, and rain water that may fall on the pad. Surface water shall not be allowed to either flow over or from the pad, which means the pad must be self-contained. The pad shall be sloped to facilitate material removal. An unroofed pad shall be of sufficient capacity to contain at a minimum 110% of the capacity of the largest pesticide container or application equipment on the pad. A pad that is covered by a roof of sufficient size to completely exclude precipitation from contact with the pad shall have a minimum containment capacity of 100% of the capacity of the largest pesticide container or application equipment on the pad. Containment capacities as described above shall be maintained at all times. The above-specified minimum containment capacities **DO NOT** apply to vehicles when delivering pesticide shipments to the mixing/loading site.

**Mixing LIBERTY METCHLORBUZIN in Water or In Liquid Fertilizers:** When mixing LIBERTY METCHLORBUZIN alone, add 1/3 of the required amount of water or fluid fertilizer to the spray or mixing tank and then, with the agitator running, add LIBERTY METCHLORBUZIN to the spray tank. Continue agitation while adding the remainder of the water or fluid fertilizer. Begin application of the spray solution after LIBERTY METCHLORBUZIN has completely dispersed in the water or fluid fertilizer. Maintain agitation until all of the mixture has been applied.

When mixing LIBERTY METCHLORBUZIN with tank mixtures, add 1/3 of the required amount of water or fluid fertilizer to the mix tank. Start the agitator running before adding any tank mix partners. In general, tank mix partners should be added in this order: products packaged in water-soluble packaging, wettable powders, wettable granules (dry flowables), liquid flowables, liquids such as LIBERTY METCHLORBUZIN, and emulsifiable concentrates. Always allow each tank mix partner to become fully dispersed before adding the next product. Provide sufficient agitation while adding the remainder of the water. Maintain agitation until all of the mixture has been applied.

**Important:** When using LIBERTY METCHLORBUZIN in tank mixtures, all products in water-soluble packaging should be added to the tank and mixed with plain water before any other tank mix partner, including LIBERTY METCHLORBUZIN. Allow the water-soluble packaging to completely dissolve and the product(s) to completely disperse before adding any other tank mix partner to the tank. Water-soluble packets will not properly dissolve in most spray solutions that contain fluid fertilizers.

If using LIBERTY METCHLORBUZIN in a tank mixture, observe all directions for use, crop/sites, use rates, dilution ratios, precautions, and limitations that appear on the tank mix product label. No label dosage rate should be exceeded, and the most restrictive label precautions and limitations should be followed.

LIBERTY METCHLORBUZIN is compatible with most common tank mix partners. However, the physical compatibility with tank mix partners should be tested before use. To determine the physical compatibility of LIBERTY METCHLORBUZIN with other products, use a jar test, as described below.

**LIBERTY METCHLORBUZIN Compatibility Testing:** To ensure compatibility of LIBERTY METCHLORBUZIN with other pesticides, perform a jar test before tank mixing. The following test assumes a spray volume of 25 gallons per acre. For other spray volumes, make appropriate changes in the ingredients.

**Note:** Nitrogen solutions or complete fluid fertilizers may replace all or part of the water in the spray for preplant surface, preplant incorporated, or preemergence applications only. Because liquid fertilizers vary, even within the same analysis, **always check compatibility with pesticide(s) before use.** Incompatibility of tank mixtures is more common with suspensions of fertilizer and pesticides.

**Test Procedure:**

1. Add 1.0 pint of carrier (fertilizer or water) to each of two one quart jars with tight lids. **Note:** Use the same source of water that will be used for the tank mix and conduct the test at the temperature the tank mix will be applied.

2. To one of the jars, add 1/4 teaspoon or 1.2 milliliters of a compatibility agent approved for this use, such as Envelop (1/4 teaspoon is equivalent to 2.0 pints per 100 gallons spray). Shake or stir gently to mix.
3. To both jars, add the appropriate amount of pesticide(s) in their relative proportions based on recommended label rates. If more than one pesticide is used, add them separately with dry pesticides first, flowables next, and emulsifiable concentrates last. After each addition, shake or stir gently to thoroughly mix.
4. After adding all ingredients, put lids on and tighten, and invert each jar ten times to mix. Let the mixtures stand 15 to 30 minutes and then look for separation, large flakes, precipitates, gels, heavy oily film on the jar, or other signs of incompatibility. Determine if the compatibility agent is needed in the spray mixture by comparing the two jars. If either mixture separates, but can be remixed readily, the mixture can be sprayed as long as good agitation is used. If the mixtures are incompatible, test the following methods of improving compatibility: (a) Slurry the dry pesticide(s) in water before addition, or (b) add 1/2 the compatibility agent to the fertilizer or water and the other 1/2 to the emulsifiable concentrate or flowable pesticide before addition to the mixture. If incompatibility is still observed, **DO NOT** use the mixture.
5. After compatibility testing is complete, dispose of any pesticide wastes in accordance with the **Storage and Disposal** section of this label.

**Equipment Cleanup After LIBERTY METCHLORBUZIN Application:** Before application of LIBERTY METCHLORBUZIN, the spray equipment must be cleaned. Follow the cleanup procedures specified on the labels of the previously applied products. If no clean-up directions are provided, follow the steps provided below for cleaning up after spraying LIBERTY METCHLORBUZIN.

After application of LIBERTY METCHLORBUZIN, equipment cleanup is very important. Because some crops are sensitive to low rates of LIBERTY METCHLORBUZIN, special attention must be given to cleaning equipment before spraying a crop other than those registered for use and on this label. Mix only as much spray solution as needed. Immediately after spraying, clean equipment thoroughly using the following procedure:

1. Flush tank, hoses, boom, and nozzles with clean water.
2. Prepare a cleaning solution of one gallon of household ammonia per 50 gallons of water. Many commercial spray tank cleaners may be used as well. Consult your Liberty representative for a partial listing of approved tank cleaners and more information about proper tank cleaning procedures. **DO NOT** use chlorine-based cleaners such as Clorox®.
3. When available, use a pressure washer to clean the inside of the spray tank with this solution. Take care to wash all parts of the tank, including the inside top surface. Completely fill the sprayer with the cleaning solution to ensure contact of the cleaning solution with all internal surfaces of the tank and plumbing. Start agitation in the sprayer and thoroughly re-circulate the cleaning solution for **at least 15 minutes**. All visible deposits must be removed from the spraying system.
4. Flush hoses, spray lines, and nozzles for at least one minute with the cleaning solution.
5. Dispose of rinsate from steps 1 to 3 as described under the **Environmental Hazards** section of the **Precautionary Statements**.
6. Repeat steps 2 to 5.
7. Remove nozzles, screens, diaphragm check valves and strainers and clean separately in the ammonia cleaning solution after completing the above procedures.
8. Rinse the complete spraying system with clean water.

### APPLICATION INSTRUCTIONS

LIBERTY METCHLORBUZIN may be applied by ground spray equipment (including center pivot) and aerial spray equipment. As discussed below, use a minimum of 10 gallons per acre of spray mixture for ground application and 2 gallons per acre for aerial application. Apply in 0.5 to 1 inch of water when using center pivot application.

Prepare no more spray mixture than is needed for the immediate operation. Clean spray equipment is very important so be sure to thoroughly clean before mixing LIBERTY METCHLORBUZIN. Vigorous agitation is necessary to maintain uniformity of the spray mixture. Maintain maximum agitation throughout the spraying

operation. **DO NOT** allow spray mixture to stand overnight in the spray tank. Flush the spray equipment thoroughly following each use and apply the rinsate to a previously treated area.

**Ground Application:** Apply LIBERTY METCHLORBUZIN alone or in tank mixtures by ground spray equipment in a minimum of 10 gallons spray mixture per acre, unless otherwise specified. Use sprayers that provide accurate and uniform application. Sprayers should be calibrated often. If LIBERTY METCHLORBUZIN is applied in combination with wettable powder or dry flowable formulations, screens and strainers with a minimum 50-mesh size should be used.

If LIBERTY METCHLORBUZIN is applied in a band, calculate the amount of herbicide needed for band treatment by the formula below:

$$\frac{\text{Band width in inches}}{\text{Row width in inches}} \times \text{Broadcast rate per acre} = \text{Amount needed per acre of field}$$

**Aerial Application:** Apply LIBERTY METCHLORBUZIN in water using a minimum of 2 gallons per acre. Avoid application under conditions where uniform coverage cannot be obtained or where excessive spray drift may occur. Make applications at a maximum height of 10 feet above the crop with low drift nozzles at a maximum pressure of 40 psi. Avoid application to humans or animals. Flagmen and loaders should avoid inhalation of spray mist and prolonged contact with skin.

**Center Pivot Application:** If chemigating, apply LIBERTY METCHLORBUZIN only through a center pivot irrigation system. Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from non-uniform distribution of treated water. If you have questions about calibration, you should contact State Extension specialists, equipment manufacturers, or other experts. **DO NOT** connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system, unless the pesticide label-prescribed safety devices for public water systems are in place. 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.

#### **Operating Instructions for Center Pivot Application**

1. The 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.
2. The pesticide injection pipeline must contain a functional, automatic, quick-closing check-valve to prevent the flow of fluid back toward the injection pump.
3. 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.
4. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
5. The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.
6. Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump or piston pump), effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.
7. **DO NOT** apply when wind speed favors drift beyond the area intended for treatment.
8. Prepare a mixture with a minimum of 1 part water to 1 part herbicide(s) and inject this mixture into the center pivot system. Injecting a larger volume of a more dilute mixture per hour will usually provide more accurate calibration of metering equipment. Maintain sufficient agitation to keep the herbicide in suspension.
9. Meter into irrigation water during entire period of water application.

- Apply in 0.5 to 1 inch of water. Use the lower water volume (0.5 inch) on **coarse-textured soils** and the higher volume (1 inch) on **fine-textured soils**. More than 1 inch of water at application may reduce weed control by moving the herbicide below the effective zone in the soil.

**Important:** When chemigating with LIBERTY METCHLORBUZIN through center pivot, unacceptable weed control may result if the sprinkler distribution patterns **DO NOT** overlap sufficiently. In addition, if sprinkler distribution patterns overlap excessively, crop injury may result.

**Restriction**

- DO NOT** apply this product through any other type of irrigation system.

**Application by Impregnated Dry Bulk Granular Fertilizers:** LIBERTY METCHLORBUZIN may be impregnated or coated on many dry bulk granular fertilizers and applied with the fertilizers to control weeds. When applying LIBERTY METCHLORBUZIN with dry bulk fertilizers, follow all directions for use and precautions on the LIBERTY METCHLORBUZIN label regarding target crops, rates per acre, soil texture, application methods, and rotational crops.

It is the responsibility of the individual and/or company selling the herbicide/fertilizer mixture to comply with all individual state regulations relating to dry bulk granular fertilizer blending, registration, labeling, and application.

Prepare the herbicide/fertilizer mixture by using any closed drum, belt, ribbon, or other commonly used dry bulk fertilizer blender. Nozzles used to spray LIBERTY METCHLORBUZIN onto the fertilizer must be spaced to provide uniform spray coverage. Care should be taken to aim the spray onto the fertilizer only, avoiding the walls of the blender.

If the herbicide/fertilizer mixture is too wet, add a highly absorptive material, such as Agsorb® FG or Celatom MP-79®, or similar granular clay or diatomaceous earth materials, to obtain a dry, free-flowing mixture. Absorptive materials should be added only after the herbicide has been thoroughly blended into the fertilizer mixture. Best application results will be obtained by using a granule of 6/30 particle size or of a size similar to that of the fertilizer materials being used. Generally, less than 2% by weight of absorptive material will be needed. Avoid using more than 5% absorptive material by weight.

Calculate the amount of LIBERTY METCHLORBUZIN to be used per ton of fertilizer by using the following formula:

$$\frac{2,000}{\text{Pounds of fertilizer per acre}} \times \text{Pints of LIBERTY METCHLORBUZIN per acre} = \text{Pints of LIBERTY METCHLORBUZIN per ton of Fertilizer}$$

**Application by Pneumatic (Compressed Air) Equipment:** High humidity, high urea concentrations, low fertilizer use rates, and dusty fertilizer may cause fertilizer mixtures to build up or plug the distributor head, air tubes, or nozzle deflector plates. To minimize buildup, premix LIBERTY METCHLORBUZIN with Exxon Aromatic 200 at a rate of 2.0 to 2.5 pints per gallon of LIBERTY METCHLORBUZIN. Aromatic 200 is a noncombustible/nonflammable petroleum product. Aromatic 200 may be used in either a fertilizer blender or through direct injection systems. Drying agents should not be used when using Aromatic 200.

**Precautions:**

- Mixtures of LIBERTY METCHLORBUZIN and Aromatic 200 must be used on dry fertilizer only. Poor results or crop injury may result if these mixtures are used in water or liquid fertilizer solutions for spraying applications.
- When impregnating LIBERTY METCHLORBUZIN in a blender before application, a drier mixture can be obtained by substituting a drying agent for Aromatic 200. The use of Agsorb FG or another drying agent of 6/30 particle size is recommended.
- Drying agents are not recommended for use with On-The-Go impregnation equipment.

## Restrictions

- **To avoid potential for explosion,**
  - **DO NOT** impregnate LIBERTY METCHLORBUZIN on ammonium nitrate, potassium nitrate, or sodium nitrate, either alone or in blends with other fertilizers.
  - **DO NOT** combine LIBERTY METCHLORBUZIN with a single superphosphate (1-20-0) or treble superphosphate (0-46-0).
  - **DO NOT** use LIBERTY METCHLORBUZIN on straight limestone, since absorption will not be achieved. Fertilizer blends containing limestone can be impregnated.

**Application of Impregnated Dry Bulk Granular Fertilizer:** Apply 200 to 700 pounds of the herbicide/fertilizer mixture per acre. For best results, apply the mixture uniformly to the soil with properly calibrated equipment immediately after blending. Uniform application of the herbicide/fertilizer mixture is essential in order to prevent possible crop injury to subsequent rotational crops. Non-uniform application may also result in unsatisfactory weed control. In areas where conventional tillage is practiced, a shallow incorporation of the mixture into the soil is recommended to obtain satisfactory weed control. On fine- or medium-textured soils in areas where soil incorporation is not planned, i.e., reduced-tillage situations or in some conventional till situations, make applications approximately 30 days before planting to allow moisture to move the herbicide/fertilizer mixture into the soil. On coarse-textured soils, make applications approximately 14 days prior to planting. To help avoid rotational crop injury, make applications as early as possible, since LIBERTY METCHLORBUZIN impregnated onto dry bulk fertilizers can be expected to last longer in the soil than LIBERTY METCHLORBUZIN applied as a spray in water or fluid fertilizer.

### PRECAUTIONS FOR LIBERTY METCHLORBUZIN USE ON POTATOES, TOMATOES AND SOYBEANS

When making an application of LIBERTY METCHLORBUZIN, observe all precautions and limitations on the LIBERTY METCHLORBUZIN label as well as on the labels of each product that might be used in tank mixtures. Tank mixture partners must be registered in states where they are used. Refer to and follow the label for each tank mix product used.

**DO NOT** apply LIBERTY METCHLORBUZIN under conditions which favor runoff or wind erosion of soil containing LIBERTY METCHLORBUZIN to non-target areas.

In order to prevent off-site movement of LIBERTY METCHLORBUZIN in runoff or wind erosion, the following guidelines should be observed:

1. Avoid treating powdery dry or light sand soils when conditions are favorable for wind erosion. Under these conditions, the soil surface should first be settled by rainfall or irrigation.
2. **DO NOT** apply to impervious substrates, such as paved or highly compacted surfaces.
3. **DO NOT** use tailwater from the first flood or furrow irrigation of treated fields to treat non-target crops, unless at 0.5 inch of rainfall has occurred between application and the first irrigation.

### CROP ROTATION

**Table 1. Time Interval Between Treatment with LIBERTY METCHLORBUZIN And Planting Rotation Crops<sup>1, 2, 3</sup>**

Crop	Months
Alfalfa, winter barley, winter wheat	4.5
Corn, Cotton, peas, rice, spring barley, spring wheat	8
Asparagus, forage grasses, lentils, sainfoin, sugarcane, tomatoes, other crops not listed (except root crops)	12
Onions, sugar beets and other root crops	18
1 Cover crops for soil building or erosion control may be planted any time, but <b>DO NOT</b> graze or harvest for food or feed. Stand reductions may occur in some areas.	
2 Crop rotation recommendations <b>DO NOT</b> include restrictions for the tank mix partner. Refer to the label of the other product for additional restrictions.	
3 Refer to the specific crop use sections for additional crop rotation precautions.	

**Precaution**

- **DO NOT** rotate to any food or feed crops following application of this product other than those listed in **Table 1** or injury could result.

**CROP USES**

**POTATOES (EXCEPT KERN COUNTY, CA or [Except CA])**

LIBERTY METCHLORBUZIN may be used on potatoes for preemergence weed control if applied prior to or after potato emergence. Although LIBERTY METCHLORBUZIN has some postemergence activity, the spectrum of weeds controlled, level of control and consistency of control is better when it is applied preemergence to weeds. **DO NOT** apply LIBERTY METCHLORBUZIN as a preplant incorporated application because of the increased risk for crop injury. **DO NOT** rotate to food or feed crop other than listed. When used according to label directions, LIBERTY METCHLORBUZIN provides control or suppression of the weeds listed in **Table 2**.

**Table 2. Weeds Controlled (C) or Suppressed<sup>1</sup> (S) in Potatoes by LIBERTY METCHLORBUZIN.**

<b>ANNUAL GRASSES</b>	<b>BROADLEAVES<sup>2</sup></b>
Barley, volunteer (S)	Anoda, spurred (C)
Barnyardgrass (C)	Beggarweed, Florida (C)
Bluegrass, annual (C)	Carpetweed (C)
Crabgrass (C)	Chickweed, common (C)
Crowfootgrass (C)	Cocklebur (S)
Cupgrass, prairie (C)	Copperleaf, hophornbeam (C)
Cupgrass, southwestern (C)	Galinsoga spp. (C)
Foxtail spp. (C)	Henbit (C)
Goosegrass (C)	Jimsonweed (C)
Johnsongrass, seedling (S)	Knotweed spp. (C)
Junglerice (C)	Kochia (S)
Panicum, fall (C)	Ladythumb (C)
Panicum, Texas (S)	Lambsquarters, common (C)
Sandbur spp. (S)	Lettuce, prickly (C)
Shattercane (S)	Mallow, Venice (C)
Rice, red (C)	Mustard spp. (C)
Signalgrass, broadleaf (C)	Nightshade, black (C)
Sorghum, volunteer (S)	Nightshade, hairy (S)
Wheat, winter (S)	Pennycress, field (C)
Witchgrass (C)	Pepperweed, Virginia (C)
<b>SEDGES</b>	Pigweed spp. (C)
Yellow nutsedge (C)	Purslane, common (C)
	Pusley, Florida (C)
	Ragweed, common (S)
	Redweed (C)
	Sesbania spp. (C)
	Shepherd's purse (C)
	Sicklepod (C)
	Sida, prickly/teaweed (C)
	Smartweed, Pennsylvania (C)
	Spurge, spotted (C)
	Starbur, bristly (C)
	Sunflower, common (S)

	Thistle, Russian (C)
	Velvetleaf (S)
	Waterhemp spp. (C)
1 Suppression means significant activity, but not always at a level considered acceptable for commercial weed control.	
2 This product will provide control of these annual broadleaf weeds except triazine-resistant biotypes other than <i>Galinsoga</i> spp., black nightshade, pigweed spp. and waterhemp spp.	

**Preemergence Applications:** Apply LIBERTY METCHLORBUZIN after planting but before crop emergence, or apply after drag-off if this operation is part of the usual cultural practice. LIBERTY METCHLORBUZIN may be applied with ground spray equipment, aerial spray equipment, or by center pivot irrigation equipment that is capable of making a uniform broadcast application.

**Postemergence Applications:** Apply LIBERTY METCHLORBUZIN only in center pivot irrigation water, after drag-off if that is the usual cultural practice. Refer to the **Center Pivot Application** section of this label for application information.

**Application Rates:** Application rates for LIBERTY METCHLORBUZIN use in potatoes are provided in **Tables 3 and 4**. If a rate range is given, use lower rates on the more coarse-textured soils within that group and/or where weed pressures are known to be light; use the high end of the rate range on the more fine-textured soils listed within the group and/or where the weed pressure is known to be heavy.

**Table 3: Preemergence Use Rates for LIBERTY METCHLORBUZIN in Potatoes**

Soil Texture	0.5 to 3% Organic Matter Pts./A	Over 3% Organic Matter Pts./A
<b>COARSE</b> <sup>1</sup> (Sand, loamy sand, sandy loam)	1.5-2.0 (0.23 – 0.31 lb ai metribuzin and 0.98 – 1.31 lb ai metolachlor)	2.0-2.4 (0.31 – 0.38 lb ai metribuzin and 1.31 – 1.58 lb ai metolachlor)
<b>MEDIUM or FINE</b> (Loam, silt loam, silt, sandy clay, sandy clay loam, silty clay, silty clay loam, clay, clay loam)	2.4-2.75 (0.38 – 0.43 lb ai metribuzin and 1.58 – 1.80 lb ai metolachlor)	2.75-2.9 (0.43 – 0.45 lb ai metribuzin and 1.80 – 1.90 lb ai metolachlor)
1 On soils that classify as a “sand” texture <b>DO NOT</b> use more than 1.5 pints (0.23 lb ai metribuzin and 0.98 lb ai metolachlor) per acre of LIBERTY METCHLORBUZIN, or more than 0.5 lb ai per acre of metribuzin in total, or crop injury may occur.		

**Table 4: Postemergence Use Rates for LIBERTY METCHLORBUZIN in Potatoes (for application in center pivot irrigation water only)**

Soil Texture	0.5% Organic Matter and Above Pts./A
<b>COARSE</b> <sup>1</sup> (Sand, loamy sand, sandy loam)	1.5 (0.23 lb ai metribuzin and 0.98 lb ai metolachlor)
<b>MEDIUM or FINE</b> (Loam, silt loam, silt, sandy clay, sandy clay loam, silty clay, silty clay loam, clay, clay loam)	1.5-2.2 (0.23 – 0.34 lb ai metribuzin and 0.98 – 1.44 lb ai metolachlor)
1 Crop injury may occur on soils that classify as a “sand” texture and have less than 0.5% organic matter.	

**Precautions**

- To avoid crop injury, postemergence applications should be made only on russetted or white skinned varieties of potatoes that are not early maturing. Avoid postemergence applications on Atlantic, Bellchip,



Centennial, Chipbelle, Shepody and Superior varieties. Preemergence applications on these varieties may cause crop injury under adverse weather conditions, on coarse soils, under high soil pH and with higher use rates.

- Potato varieties may vary in their response to a given herbicide application. When using this product for the first time on a particular variety, always determine crop tolerance before using on a field-scale.
- The planting of sensitive crops such as lettuce, cole crops and cucurbits during the next growing season following application of this product may result in injury to that crop.
- Certain cereal varieties are sensitive to metribuzin (and should not be planted during the next growing season unless the following cultural practices occur:
  - Potato vines left in the row as a result of harvest must be uniformly distributed over the soil surface prior to plowing, and
  - Plow with a moldboard plow to a depth sufficient to mix the upper 8 inches of soil.

#### Restrictions

- **DO NOT** apply this product as a preplant incorporated application in potatoes, or crop injury may occur.
- **DO NOT** make more than two applications per year.
- **DO NOT** apply more than 4.57 pints (0.71 lb ai metribuzin and 3.0 lb ai metolachlor) per acre per year.
- **DO NOT** apply more than 1.0 lb ai of metribuzin per acre per year.
- **DO NOT** apply this product to muck or peat soils.
- **DO NOT** apply this product postemergence if the weather in the next 3 days is predicted to be cool, wet or cloudy, as crop injury may occur.
- **Preharvest Interval (PHI): DO NOT** harvest within 60 days of the last application.
- **DO NOT** apply after June 30 in Idaho, Oregon, or Washington if the treated land will be planted to a crop other than potatoes in the fall.
- **DO NOT** apply this product to sweet potatoes or yams.

#### Tank Mixtures with Other Products Registered for Use in Potatoes

LIBERTY METCHLORBUZIN may be tank mixed with other pesticide products and applied preemergence in potatoes. Make sure the other products are registered for preemergence use in potatoes and follow the directions for use, observe the stated precautions, and abide by the limitations and restrictions on the most restrictive of the product labels. If you have no previous experience mixing these products under your conditions, perform a compatibility test before attempting large-scale mixing (see the **LIBERTY METCHLORBUZIN Compatibility Testing** section of this label).

For postemergence applications (center pivot irrigation applications only), i.e. where potato vines are exposed, there may be increased risk of crop injury from certain product mixtures. At this application timing, tank mix LIBERTY METCHLORBUZIN only with pesticide products which allow tank mixing and postemergence chemigation on their product label. Follow the directions for use, observe the stated precautions, and abide by the limitations and restrictions on the most restrictive of the product labels.

#### SOYBEANS (Except California)

**Product Information:** To control or suppress the weeds listed below in **Table 5**, LIBERTY METCHLORBUZIN may be applied to soybeans as a preplant surface, preplant incorporated, preemergence, or as a sequential application.

- Where a rate range is shown, use a lower rate of LIBERTY METCHLORBUZIN on soils that are coarse-textured and/or low in organic matter. Use a higher rate on soils that are relatively fine-textured and/or high in organic matter.
- If replanting is necessary in fields previously treated with LIBERTY METCHLORBUZIN, the field may be replanted to soybeans. A minimum of tillage is recommended. **DO NOT** apply a second treatment as injury to soybeans may occur.

**Precautions** Soybean injury or reduced weed control may occur when LIBERTY METCHLORBUZIN is applied under certain conditions. The following conditions should be avoided wherever possible when making applications of LIBERTY METCHLORBUZIN to soybeans:

- Application to any soil with less than 0.5% organic matter.

- Where soil incorporation is deeper than recommended.
- When sprayers were not calibrated accurately.
- When soils have a calcareous surface area or a pH of 7.5 or higher.
- When applied in conjunction with soil-applied organic phosphate pesticides.
- Where high soil levels of atrazine are present.
- Due to the sensitivity of certain soybean varieties, **DO NOT** apply this product on Altona, AP 55, AP 71, Asgrow 6520, Burlison, Coker 102, Coker 156, Dassel, GL 3202, Govan, Maple Amber, NB 3665, NKS 1884, Paloma 350, Portage, Regal, Semmes, Terra-Vig 505, Terra-Vig606, Tracy, Vansoy, and Vinton 81. If you choose to plant a newly released soybean variety, consult your seed supplier for information on its tolerance to metribuzin (an active ingredient in LIBERTY METCHLORBUZIN) before using this product.
- Uneven application or improper incorporation of this product can decrease the level of weed control and/or increase the level of crop injury.
- When heavy rains occur soon after application, especially in poorly drained areas where water may stand for several days.
- When soybeans are planted less than 1.5 inches deep, particularly when this product is applied preemergence.
- When using poor quality soybean seed.

**Restriction**

- **DO NOT** graze or feed soybean plants to livestock if they have received a post-emergent treatment. For all other applications, soybean plants may be grazed or fed to livestock 40 days after the last application of this product.

**Table 5. Weeds Controlled (C) or Suppressed (S) <sup>1</sup> by LIBERTY METCHLORBUZIN in Soybeans.**

<b>ANNUAL GRASSES</b>	<b>BROADLEAVES <sup>2</sup></b>
Barley, volunteer (S)	Anoda, spurred (C)
Barnyardgrass (C)	Beggarweed, Florida (C)
Bluegrass, annual (C)	Carpetweed (C)
Crabgrass spp. (C)	Chickweed, common (C)
Crowfootgrass (C)	Cocklebur (S)
Cupgrass, prairie (C)	Copperleaf, hophornbeam (C)
Cupgrass, southwestern (C)	<i>Galinsoga</i> spp. (C)
Foxtail spp. (C)	Henbit (C)
Goosegrass (C)	Jimsonweed (C)
Johnsongrass, seedling (S)	Knotweed spp. (C)
Junglerice (C)	Kochia (C)
Panicum, fall (C)	Ladythumb (C)
Panicum, Texas (S)	Lambsquarters, common (C)
Rice, red (C)	Lettuce, prickly (C)
Sandbur spp. (S)	Mallow, Venice (C)
Shattercane (S)	Mustard spp. (C)
Signalgrass, broadleaf (C)	Nightshade, black (C)
Sorghum, volunteer (S)	Nightshade, hairy (S)
Wheat, volunteer (S)	Pennycress, field (C)
Witchgrass (C)	Pepperweed, Virginia (C)
<b>SEDGES</b>	Pigweed spp. (C)
Yellow nutsedge (S)	Purslane, common (C)
	Pusley, Florida (C)
	Ragweed, common (S)
	Redweed (C)

	<i>Sesbania</i> spp. (C)
	Shepherd's purse (C)
	Sicklepod (C)
	Sida, prickly/teaweed (C)
	Smartweed, Pennsylvania (C)
	Spurge, spotted (C)
	Starbur, bristly (C)
	Sunflower, common (S)
	Thistle, Russian (C)
	Velvetleaf (S)
	Waterhemp spp. (C)
<p>1 Suppression means significant activity, but not always at a level considered acceptable for commercial weed control.</p> <p>2 LIBERTY METCHLORBUZIN will provide control of these annual broadleaf weeds except triazine-resistant biotypes other than <i>Galinsoga</i> spp., black nightshade, pigweed spp. and waterhemp spp.</p>	

### Foundation Treatment with LIBERTY METCHLORBUZIN for Planned Two-pass Weed Control Systems:

LIBERTY METCHLORBUZIN may be applied preplant incorporated or preemergence at 1.5 to 1.8 pints per acre on all soils to reduce competition from the weeds listed in **Table 5** for a 30-day period when followed by a planned postemergence weed control treatment. Recommended postemergence treatments include any product or combination of products labeled to control the specific weeds remaining in the field including glyphosate (for use only on Roundup Ready® or glyphosate tolerant soybean varieties). Follow all application directions for LIBERTY METCHLORBUZIN used alone, either preplant incorporated or preemergence. For the postemergence herbicide application, consult the selected postemergence herbicide manufacturer's label for a list of weeds controlled; weed size, application rate, additional use directions, precautions, and limitations before use.

#### Restriction

- On soils with pH above 7.0, use only the 1.5 pints (0.23 lb ai metribuzin and 0.98 lb metolachlor) per acre rate of this product.

### LIBERTY METCHLORBUZIN Use in Conventional Soybean Tillage Systems

**Preplant Incorporated Application:** Incorporate LIBERTY METCHLORBUZIN uniformly into the top 2 inches of soil within 14 days before planting using a disk, field cultivator, rolling cultivator, or similar implement. Apply LIBERTY METCHLORBUZIN preplant incorporated if furrow irrigation is used or when a period of dry weather after application is expected. If soybeans are planted on beds, apply and incorporate the tank mixture after bed formation.

**Preemergence Application:** Dry weather following preemergence application of LIBERTY METCHLORBUZIN may reduce effectiveness. If weeds develop, cultivate uniformly with shallow tilling equipment that will not damage the soybeans.

For information on applying LIBERTY METCHLORBUZIN in fluid or dry fertilizer, refer to the sections of the label on **Mixing in Water or Liquid Fertilizers**, **Application of Impregnated Dry Bulk Granular Fertilizers** and **Application by Impregnated Dry Bulk Granular Fertilizers**.

**Table 6: Use Rates for LIBERTY METCHLORBUZIN in Conventional Soybean Tillage Systems (Broadcast Rates).**

Soil Texture	0.5 to 3% Organic Matter Pts./A	Over 3% Organic Matter <sup>2</sup> Pts./A
<b>COARSE</b> <sup>1</sup> (Loamy sand, sandy loam)	1.2-1.5 <sup>3</sup> (0.19 – 0.23 lb ai metribuzin and 0.79 – 0.98 lb ai metolachlor)	1.5-1.8 (0.23 – 0.28 lb ai metribuzin and 0.98 – 1.18 lb ai metolachlor)
<b>MEDIUM</b> (Loam, silt loam, silt, sandy clay, sandy clay loam)	1.8-2.1 (0.28 – 0.33 lb ai metribuzin and 1.18 – 1.38 lb ai metolachlor)	2.1-2.4 (0.33 – 0.38 lb ai metribuzin and 1.38 – 1.58 lb ai metolachlor)
<b>FINE</b> (Silty clay, silty clay loam <sup>4</sup> , clay, clay loam)	2.4-2.7 (0.38 – 0.42 lb ai metribuzin and 1.58 – 1.77 lb ai metolachlor)	2.4-3.0 (0.38 – 0.47 lb ai metribuzin and 1.58 – 1.97 lb ai metolachlor)
<p>1 <b>DO NOT</b> use on sand soils. On coarse-textured soils, <b>DO NOT</b> use on loamy sand soils with less than 2% organic matter.</p> <p>2 For preplant incorporated application, use the lower rate.</p> <p>3 For Southern and Southeastern states, see section below <b>In Coarse (Light) Soils</b>.</p> <p>4 Silty clay loam soils are transitional soils and may be classified as medium-textured soils in some regions of the U.S. When using this product, treat this soil as “fine textured soil”.</p>		

**Restrictions:**

- On soils with pH above 7.0, soybean injury caused by the metribuzin in this product may occur at rates higher than 1.5 pints (0.23 lb ai metribuzin and 0.98 lb metolachlor) per acre.
- To avoid injury, **DO NOT** use this product at rates greater than 1.5 pints (0.23 lb ai metribuzin and 0.98 lb metolachlor) per acre on soils above pH 7.0.

**In Coarse (Light) Soils**

(Only in AL, AR, FL, GA, LA, MS, MO, NC, OK, SC, TN, TX, VA)

LIBERTY METCHLORBUZIN is recommended for use as a preplant incorporated or preemergence application in coarse-textured, low organic matter soils in the states listed above. Refer to the appropriate sections of this label for specific directions on use, recommendations, and restrictions. Refer to **Table 5** for the list of weeds controlled or suppressed.

**Table 7: Use Rates for Preemergence Application of LIBERTY METCHLORBUZIN in Soybeans (Broadcast Rates)**

Soil Texture	Organic Matter	LIBERTY METCHLORBUZIN (Pints/A)
<b>COARSE</b> (Sand <sup>1</sup> , loamy sand, sandy loam)	0.5% or above	1.2-2.1 <sup>2</sup> (0.19 – 0.33 lb ai metribuzin and 0.79 – 1.38 lb ai metolachlor)

1 Not recommended for use on sand with less than 1% organic matter.  
 2 Use the higher rate under heavy weed pressures and/or on soils higher in organic matter. For maximum control of sicklepod, use a preemergence application.

**Restrictions**

- On soils with pH above 7.0, soybean injury caused by the metribuzin in this product may occur at rates higher than 1.5 pints (0.23 lb ai metribuzin and 0.98 lb metolachlor) per acre.
- To avoid injury, **DO NOT** use this product at rates greater than 1.5 pints (0.23 lb ai metribuzin and 0.98 lb metolachlor) per acre on soils above pH 7.0.

**LIBERTY METCHLORBUZIN Tank Mixes**

LIBERTY METCHLORBUZIN, applied at the rates listed in **Table 8**, can be applied preemergent, preplant or preplant incorporated with other herbicides registered for the same use and timing. 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.

**Table 8: Preemergent, Preplant or Preplant Incorporated Tank Mixes (Broadcast Rates)**

Soil Texture	LIBERTY METCHLORBUZIN <sup>1</sup> Pints per Acre	Tank Mix Partner Rate Per Acre
<b>Coarse</b> (Loamy sand, sandy loam)	1.2 – 1.5 <sup>2</sup> (0.19 – 0.23 lb ai metribuzin and 0.79 – 0.98 lb ai metolachlor)	Refer to product label for use rates.
<b>Medium</b> (Loam, silt loam, silt, sandy clay, sandy clay loam)	1.5 – 2.1 (0.23 - 0.33 lb ai metribuzin and 0.98 – 1.38 lb ai metolachlor)	
<b>Fine</b> (Silty clay, silty clay loam <sup>3</sup> , clay, clay loam)	2.1 – 2.7 (0.33 – 0.42 lb ai metribuzin and 1.38 – 1.77 lb ai metolachlor)	

<sup>1</sup> Use higher rate on soils with more than 3% organic matter.  
<sup>2</sup> For Southern and Southeastern states in coarse soils, see the In Coarse (Light) Soils section of this label for rates of this product.  
<sup>3</sup> Silty clay loam soils are transitional soils and may be classified as medium-textured soils in some regions of the U.S. When using this product, treat this soil as “fine-textured.”

**Restrictions**

- On soils with pH above 7.0, soybean injury caused by the metribuzin in this product may occur at rates higher than 1.5 pints (0.23 lb ai metribuzin and 0.98 lb metolachlor) per acre.
- To avoid injury, **DO NOT** use this product at rates greater than 1.5 pints (0.23 lb ai metribuzin and 0.98 lb metolachlor) per acre on soils above pH 7.0.

**Burndown Weed Control**

LIBERTY METCHLORBUZIN can be used as part of a burndown herbicide program for control of existing vegetation prior to soybean emergence in conservation tillage (reduced-tillage/no-till) systems. LIBERTY METCHLORBUZIN may be tank mixed with 2,4-D low volatile ester (LVE), Clethodim, Fenoxaprop-p-ethyl + Fluazifop-P-butyl, Glyphosate, Paraquat or Sethoxydim for control of emerged weeds prior to crop emergence. LIBERTY METCHLORBUZIN burndown tank mixes can be applied before planting or prior to crop emergence. Apply LIBERTY METCHLORBUZIN up to 30 days before planting or preemergence.

Apply only by ground equipment when LIBERTY METCHLORBUZIN is used for burndown of existing vegetation in conservation tillage systems. Use the high end of the rate range for LIBERTY METCHLORBUZIN applications made 14 to 30 days before planting. Refer to **Table 8** for rates of LIBERTY METCHLORBUZIN and to the following table for rates of tank mix partners.

**Table 9: Burndown Rates of Tank Mix Partners with LIBERTY METCHLORBUZIN**

Product	Rate	Directions and Remarks
2,4-D LVE	0.25-1 lb ai/A	Apply at least 7 days preplant when using 2,4-D LVE at 0.25 to 0.5 lb ai per acre and at least 30 days preplant with rates greater than 0.5 lb. a.i./A. Include COC at the rate of 1 gallon per 100 gallons of spray solution (1% v/v).
Paraquat	Labeled rates	Must be applied prior to crop emergence. Use low rate of Paraquat for weeds less than 4 inches in height and higher rate when weeds are 4 to 6 inches in height. Apply in 20 to 60 gallons of water per acre. Include either a NIS at 1 quart per 100 gallons (0.25% v/v) or COC at 1 gallon per 100 gallons (1% v/v) of spray solution.
Paraquat + 2,4-D LVE	Labeled rates + 0.25-1 lb ai/A	Follow the <b>Directions and Remarks</b> section above for 2,4-D LVE and Paraquat paying special attention to crop planting restrictions with 2,4-D LVE. Include either NIS or COC in this tank mix.
Glyphosate	Labeled rates	Must be applied prior to crop emergence. Use the higher rates as weeds approach the maximum weed heights listed in <b>Table 10</b> . Apply in 10 to 20 gallons of water per acre. Refer to Glyphosate label for spray adjuvant recommendations. Any Glyphosate formulation registered and labeled for use in soybeans may be tank mixed with LIBERTY METCHLORBUZIN.
Glyphosate + 2,4-D LVE	Labeled rates + 0.25 lb ai/A	Follow the <b>Directions and Remarks</b> section above for 2,4-D LVE and Glyphosate paying special attention to planting restrictions with 2,4-D LVE. Refer to the Glyphosate label for spray adjuvant recommendations. <b>DO NOT</b> use COC.
Fenoxaprop-p-ethyl + Fluazifop-P-butyl + 2,4-D LVE	Labeled rates + 0.25-1 lb ai/A	Follow the planting restrictions under the <b>Directions and Remarks</b> section above for 2,4-D LVE. Low, medium and high rates of Fluazifop-p-butyl + Fenoxaprop-P-ethyl will control certain grasses up to 2, 4, and 6 inches in height, respectively. Include either COC at 1 gallon per 100 gallons (1.0% v/v) or NIS at 1 to 2 quarts per 100 gallons (0.25 to 0.5% v/v) of spray solution. Refer to the Fenoxaprop-p-ethyl + Fluazifop-P-butyl label for additional information.
Sethoxydim + 2,4-D LVE	Labeled rates + 0.25-1 lb ai/A	Follow the planting restrictions under the <b>Directions and Remarks</b> section above for 2,4-D LVE. Low and high rates of Sethoxydim will control certain grasses up to 2 and 3 inches in height, respectively. Include either COC at 1 gallon per 100 gallons of spray solution (1% v/v) or Dash® HC at 1 pint per acre. Refer to the Sethoxydim label for additional information.

Clethodim + 2,4-D LVE	Labeled rates + 0.25-1 lb ai/A	Follow the planting restrictions under the <b>Directions and Remarks</b> section above for 2,4-D LVE. Low and high rates of Clethodim will control certain grasses up to 3 and 4 inches in height, respectively. Include COC at the rate of 1 quart per acre and 28% UAN (urea ammonium nitrate) at a rate of 1 to 2 quarts per acre. Refer to the Clethodim label for additional information.
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**Precautions for Burndown Weed Control in Soybeans:**

- **DO NOT** apply these treatments after crop emergence.
- Observe all precautions and limitation on the labeling of all products used in tank mixtures.
- Apply only 2,4-D low volatile ester formulations which are registered and recommended for pre-plant or burndown use.
- **DO NOT** apply tank mixtures containing 2,4-D LVE if wind is blowing toward desired susceptible plants (i.e., cotton, tobacco, tomato, etc.) or when wind speeds exceed 6 miles per hour. Observe all cautions and limitations of all products used in tank mixtures.

**Weeds Controlled:** LIBERTY METCHLORBUZIN in tank mixtures with the herbicides listed in **Table 9** will provide burndown control of the weeds listed below in **Table 10**.

**Table 10. Annual Grasses and Broadleaf Weeds Controlled by Burndown Rates of LIBERTY METCHLORBUZIN Tank Mixtures – Weed Height (Inches) For Maximum Burndown.**

LIBERTY METCHLORBUZIN PLUS								
Weeds Controlled	2,4-D LVE	Sethoxydim + 2,4-D LVE	Clethodim + 2,4-D LVE	Fluazifop-p-butyl + Fenoxaprop-P-ethyl + 2,4-D LVE	Glyphosate	Glyphosate + 2,4-D LVE	Paraquat	Paraquat + 2,4-D LVE
<b>Annual Grasses</b>	<b>Maximum Burndown Height (Inches)</b>							
Barley	Does not control these species	-	-	-		8		4 to 6
Barnyardgrass		2 to 3	3 to 4	-		6		4 to 6
Crabgrass spp.		2 to 3	-	-		6		4 to 6
Foxtail spp.		2 to 3	3 to 4	2 to 6		8		4 to 6
Johnsongrass, seedling		2 to 3	-	-		8		4 to 6
Panicum, fall		2 to 3	3	2 to 6		6		4 to 6
Sandbur, field		-	-	-		8		4 to 6
Shattercane		2 to 3	-	-		8		4 to 6
Wheat, volunteer		-	-	-		6		4 to 6
Witchgrass		2 to 3	-	-		6		4 to 6
<b>Broadleaves</b>	<b>Maximum Burndown Height (Inches)</b>							
Buffalobur			-		6	6	4 to 6	4 to 6
Chickweed, common			6		6	8	4 to 6	4 to 6
Cocklebur, common			6		6	8	4 to 6	4 to 6
Dandelion, common			6 dia <sup>1</sup>		2 dia <sup>2</sup>	6 dia <sup>1</sup>	4 dia <sup>3</sup>	6 dia <sup>1</sup>
Henbit			4		4	4	4 to 6	4 to 6
Horseweed/marestail			6 <sup>1</sup>		4 <sup>2</sup>	6	3	6 <sup>1</sup>
Jimsonweed			6		6	6	4 to 6	4 to 6
Kochia			4 <sup>1</sup>		4	4	4	4
Ladysthumb			6		6	8	4 to 6	4 to 6
Lambsquarters, common			6		6	8	4 to 6	4 to 6
Lettuce, prickly			6		4	6	4 to 6	4 to 6
Mallow, Venice			6		6	6	4 to 6	4 to 6
Morningglory spp.			6		2	4	2	4

LIBERTY METCHLORBUZIN PLUS							
Weeds Controlled	2,4-D LVE	Sethoxydim + 2,4-D LVE	Clethodim + 2,4-D LVE	Fluazifop-butyl + Fenoxaprop-P-ethyl + 2,4-D LVE	Glyphosate	Glyphosate + 2,4-D LVE	Paraquat + 2,4-D LVE
Mustard spp.			6		6	8	4 to 6
Pennycress, field			6		6	6	4 to 6
Pigweed, spp. (annual)			6		6	8	4 to 6
Ragweed, common			6		6 <sup>2</sup>	8	4 to 6
Ragweed, giant			6 <sup>1</sup>		4 <sup>2</sup>	6	4
Shepherds purse			6		6	6	4 to 6
Sida, prickly			6		4	4	4
Smartweed, Pennsylvania			6		6	8	4 to 6
Sunflower, common			6		6	6	4 to 6
Thistle, Russian			4 <sup>1</sup>		2 to 4 <sup>2</sup>	6	4
Velvetleaf			6		6	8	4 to 6
Waterhemp spp.			6		6	8	4 to 6

<sup>1</sup> Use 2,4-D LVE at 0.5 lb ai per acre.  
<sup>2</sup> Use a minimum 0.75 lb ai per acre of glyphosate.  
<sup>3</sup> Suppression only

### LIBERTY METCHLORBUZIN Use Rates for Reduced and No-Till Systems

**Preplant Surface Application:** LIBERTY METCHLORBUZIN may be used in reduced-till and no-till systems for soybeans. Applications may be made up to 30 days before planting or after planting, but before soybean emergence. Residual herbicides such as Clomazone, Cloransulam-methyl, Flumetsulam, Imazaquin, Metribuzin + Chlorimuron Ethyl and Pendimethalin may be tank mixed for additional weed control. If weeds are present at time of application, burndown herbicides may be added to the tank mixes (see **Burndown Weed Control** section). Refer to the tank mix product labels for specific rates and use directions.

**Table 11: LIBERTY METCHLORBUZIN Use Rates for Reduced-Till and No-Till Systems (Broadcast Rates)**

Soil Texture	LIBERTY METCHLORBUZIN Pt./A <sup>1</sup>
<b>COARSE</b> <sup>2</sup> (Loamy sand, sandy loam)	1.2-2.1 (0.19 – 0.33 lb ai metribuzin and 0.79 – 1.38 lb ai metolachlor)
<b>MEDIUM</b> (Loam, silt loam, silt, sandy clay, sandy clay loam)	2.1-3.0 (0.33 – 0.47 lb ai metribuzin and 1.38 – 1.97 lb ai metolachlor)
<b>FINE</b> (Silty clay, silty clay loam <sup>3</sup> , clay, clay loam)	2.7-3.6 (0.42 – 0.56lb ai metribuzin and 1.77 – 2.36 lb ai metolachlor)

1 Use low rate range for low residue level or soils with less than 3% organic matter. Use the higher rate range for high residue level or soils with greater than 3% organic matter.  
2 **DO NOT** use on sand soils. On coarse-textured soils, **DO NOT** use on loamy sand soils with less than 2% organic matter.  
3 Silty clay loam soils are transitional soils and may be classified as medium-textured soils in some regions of the U.S. When using this product, treat this soil as “fine-textured”.



### LIBERTY METCHLORBUZIN Sequential Application

An early preplant (surface-applied or shallow incorporated) application of LIBERTY METCHLORBUZIN, followed by a preemergence application of LIBERTY METCHLORBUZIN after planting but before soybean emergence, will provide more consistent control of broadleaf and grass weeds than a single application. A sequential application will decrease the need for tillage and/or burndown herbicides for the control of existing vegetation before planting, while providing residual control of weeds after planting.

Apply an early preplant application of LIBERTY METCHLORBUZIN 15 to 30 days before planting soybeans. Follow this application with a preemergence overlay application of LIBERTY METCHLORBUZIN after planting but before crop emergence. Follow directions on this label for sequential applications from 0 to 14 days before planting.

Where a rate range is recommended, the higher rates should be used (a) in fields with a history of severe weed pressure, (b) when the time between early preplant and preemergence overlay applications approaches the maximum 30 days, (c) when the organic matter content of the soil is over 3%, and/or (d) when heavy crop residues are present on the soil surface. When weeds exceed 1 to 1.5 inches in height or diameter at application, use a burndown herbicide, such as Paraquat, Glyphosate or 2,4-D LVE.

**Weeds Controlled:** In addition to weeds controlled by LIBERTY METCHLORBUZIN alone (see **Table 5**), the sequential application improves control of the following annual broadleaf weeds: buffalobur, cocklebur, common ragweed, velvetleaf, and sunflower.

**Table 12: Sequential Application (Broadcast Rates)**

Soil Texture <sup>1</sup>	Early Preplant Application LIBERTY METCHLORBUZIN Pts./A	- Followed By -	Preemergence Overlay Application LIBERTY METCHLORBUZIN Pts./A
<b>COARSE</b> <sup>1</sup> (Sand, loamy sand, sandy loam)	1.2-1.8 (0.19 – 0.28 lb ai metribuzin and 0.79 – 1.18 lb ai metolachlor)	- followed by -	0.3-0.9 (0.05 – 0.14 lb ai metribuzin and 0.20 – 0.59 lb ai metolachlor)
<b>MEDIUM</b> (Loam, silt loam, sandy clay loam, silt, sandy clay)	1.5-2.1 (0.23 – 0.33lb ai metribuzin and 0.98 – 1.38 lb ai metolachlor)	- followed by -	0.6-1.2 (0.09 – 0.19 lb ai metribuzin and 0.39 – 0.79 lb ai metolachlor)
<b>FINE</b> (Silty clay loams <sup>3</sup> , clay loam, silty clay, clay)	1.8-2.4 (0.28 – 0.38 lb ai metribuzin and 1.18 – 1.58 lb ai metolachlor)	- followed by -	0.9-1.5 (0.14 – 0.23 lb ai metribuzin and 0.59 – 0.98 lb ai metolachlor)

- 1 On coarse-textured soils, **DO NOT** use on sand soils with less than 1% organic matter. However, on coarse-textured soils with a calcareous surface area or a pH of 7.5 or higher, **DO NOT** use on sand soils with less than 2% organic matter, or on loamy sand or sandy loam soils with less than 1% organic matter.
- 2 **DO NOT** exceed a total of 3.9 pints (0.61 b metribuzin and 2.56 lb ai metolachlor) of this product per acre per year.
- 3 Silty clay loam soils are transitional soils and may be classified as medium-textured soils in some regions of the U.S. When using this product, treat this soil as “fine-textured”.

## SOYBEAN FEEDING RESTRICTIONS

Soybean plants or hay treated with LIBERTY METCHLORBUZIN may be grazed or fed to livestock 40 days after application. Follow the most restrictive preharvest interval of all products used in a tank mixture.

## TOMATOES (Except Kern County, CA)

Apply LIBERTY METCHLORBUZIN herbicide with ground equipment to seeded and transplanted tomatoes as specified below. Aerial application is prohibited.

### Transplanted Tomatoes

**Preplant incorporated before transplanting:** Apply specified dosage in 10 or more gallons of water per acre as a broadcast spray to the soil surface immediately before transplanting. Incorporate to a depth of 2 to 4 inches with equipment capable of uniformly mixing the chemical into the soil. When transplanting tomatoes, place the root system of the plant below the herbicide incorporation zone or injury may occur.

**Post-directed to transplants:** Application of LIBERTY METCHLORBUZIN may also be made post-directed to transplants after the first settling rain or irrigation. When an application is made post-directed, apply in a minimum of 20 gallons of water per acre avoiding contact with tomato plants. **DO NOT** apply until transplants have recovered from transplant shock and new growth is evident. **DO NOT** apply to tomatoes within 24 hours of applications of other pesticides. (See **Special Precautions** below). When banding, see the appropriate section in front of this label.

**Row Middles:** LIBERTY METCHLORBUZIN may also be used to treat row-middles in bedded tomatoes, as long as the total amount of LIBERTY METCHLORBUZIN does not exceed the maximum allowed per crop.

### Seeded Tomatoes

**Post-directed to seeded tomatoes:** LIBERTY METCHLORBUZIN may be applied post-directed to direct seeded tomatoes. Tomato plants must be at least 4 inches tall at the time of application and the product must be applied in a minimum of 20 gallons of water per acre. Avoid spray contact with tomato plants.

### Tomato Use Rates:

**Preplant Incorporated to Transplanted Tomatoes:** On course soils, apply LIBERTY METCHLORBUZIN at 1.5 - 2.0 pints (0.23 – 0.31 lb ai metribuzin and 0.98 – 1.31 lb ai metolachlor) per acre if organic matter content is less than 3% or 2.0 pints (0.31 lb ai metribuzin and 1.31 lb ai metolachlor) per acre if the organic matter is 3% or greater. On medium soils, apply LIBERTY METCHLORBUZIN at 2.0 to 2.5 pints (0.31 – 0.39 lb ai metribuzin and 1.31 – 1.64 lb ai metolachlor) per acre. On fine soils, apply LIBERTY METCHLORBUZIN at 2.0 to 2.5 pints (0.31 – 0.39 lb ai metribuzin and 1.31 – 1.65 lb ai metolachlor) per acre if organic matter content is less than 3% or 2.5 to 3.0 (0.39 – 0.47 lb ai metribuzin and 1.64 – 1.97 lb ai metolachlor) pints per acre if the organic matter content is 3% or greater.

**Post-emergence Directed Sprays to Established Tomatoes:** On course soils, apply LIBERTY METCHLORBUZIN at 1.5 to 2.0 pints (0.23 – 0.31 lb ai metribuzin and 0.98 – 1.31 lb ai metolachlor) per acre if organic matter content is less than 3% or 2.0 pints (0.31 lb ai metribuzin and 1.31 lb ai metolachlor) per acre if the organic matter is 3% or greater. On medium soils, apply LIBERTY METCHLORBUZIN at 2.0 to 2.5 pints (0.31 – 0.39 lb ai metribuzin and 1.31 – 1.65 lb ai metolachlor) per acre. On fine soils, apply LIBERTY METCHLORBUZIN at 2.0 to 2.5 pints (0.31 – 0.39 lb ai metribuzin and 1.31 – 1.65 lb ai metolachlor) per acre if organic matter content is less than 3% or 2.5 to 3.0 pints (0.39 – 0.47 lb ai metribuzin and 1.64 – 1.97 lb ai metolachlor) per acre if the organic matter content is 3% or greater.

## WEEDS CONTROLLED

### Preplant Incorporated and Preplant Applications to Transplanted Tomatoes:

Barnyardgrass (watergrass)	Foxtail millet	Seedling Johnsongrass*
Bristly foxtail	Galinsoga	Shattercane*
Carpetweed	Giant foxtail	Signalgrass (Brachiaria)
Common purslane*	Goosegrass	Southwestern cupgrass
Common waterhemp	Green foxtail	Tall waterhemp

Crabgrass	Hairy nightshade*	Volunteer sorghum*
Crowfootgrass	Lambquarters	Wild proso millet*
Eastern black nightshade	Pigweed	Witchgrass
Eclipta*	Prairie cupgrass	Woolly cupgrass*
Fall panicum	Red rice	Yellow foxtail
Florida beggarweed**	Robust foxtails (purple, white)	Yellow nutsedge
Florida pusley	Sandbur*	
*Weeds partially controlled.		
**For partial control of this weed, use a minimum of 3 pints per acre and apply preemergence.		

**Post-emergence Directed Sprays to Established Tomatoes:** (for effective control of weeds with postemergence application, apply LIBERTY METCHLORBUZIN before weeds are 1-inch tall).

Barnyardgrass**	Jimsonweed*	Toadflax
Carpetweed	Ladysthumb*	Velvetleaf*
Common ragweed*	Lambsquarters	Wild mustard
Crabgrass**	Wild mustard	Yellow foxtail*
Fumitory	Pigweeds	
Galinsoga	Purslane	
Goosegrass	Pennsylvania smartweed*	
*For optimum control of these weeds, use the highest rate recommended on the label for the type of application to be made.		
**Partial control only.		

#### Precautions Tomatoes:

- this product may damage transplants that have been weakened by any cause.
- To prevent damage, plant only healthy transplants. **DO NOT** plant when wet, cool, or unfavorable growing conditions exist.
- In transplanted tomatoes, if this product is applied preplant incorporated, incorporate to a depth less than the depth of transplanting, and use the lower end of the rate range for the given soil type, or damage may occur.
- For row middle applications where tomatoes are grown on sandy soils and where high soil moisture conditions can exist (i.e., low binding and high evaporation conditions), as may be found in the States of Florida, Georgia, Maryland and Virginia, there is potential for crop injury in the form of leaf epinasty. The risk of this type of injury can be reduced by: (a) incorporating the LIBERTY METCHLORBUZIN immediately following application, (b) applying this product 7 or more days before transplanting (but only after the beds have been formed), (c) minimizing the application of this product onto the plastic on the bed, or (d) any combination of the above.

#### Restrictions Tomatoes:

- To avoid possible illegal residues **DO NOT** apply this product within 90 days of tomato harvest.
- **DO NOT** exceed the maximum label rate of this product for the soil texture per year.
- **DO NOT** apply more than 1.0 lb ai per acre of Metribuzin (one of the components in this product) per year.
- **DO NOT** apply the total amount of 1.0 lb ai per acre of Metribuzin (one of the components in this product) within a time span of less than 35 days except in the case of directed sprays.
- Allow at least 14 days between Metribuzin (one of the components in this product) applications regardless of dosage or method of application or severe crop injury may occur.
- Apply by ground application only.
- Aerial application is prohibited.
- **DO NOT** apply more than 1 post-emergence application per year.
- **DO NOT** apply within 3 days after periods of cool, wet, or cloudy weather or crop injury will occur.
- **DO NOT** use hot caps on tomatoes within 7 days before or at any time after application of this product. **DO NOT** treat seeded tomatoes until plants have reached the 5- to 6-leaf stage or severe crop injury may occur.

- Crop injury or delayed maturity may result from broadcast or directed spray applications if tomatoes are growing under stress conditions such as periods of drought or cool, wet, and cloudy weather preceding application.
- For newly introduced tomato varieties with unknown tolerance to this product, treat only a small area to determine if this product can be used without injury to the crop.
- **DO NOT** apply to varieties or cultivars with unknown tolerance to this product.

### **STORAGE AND DISPOSAL**

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

**PESTICIDE STORAGE:** Store product in original container only.

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

**CONTAINER DISPOSAL:**

**Nonrefillable Container (5 gallons or less):** Nonrefillable container **DO NOT** reuse or refill this container. Offer for recycling, if available. Clean container promptly after emptying. **Triple rinse as follows:** Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. If recycling is not available, puncture or dispose of in a sanitary landfill or incineration or if allowed by state and local authorities, by burning. If burned stay out of smoke.

**Nonrefillable Container (greater than five gallons):** Nonrefillable container. **DO NOT** reuse or refill this container. Offer for recycling, if available. Clean container 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 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. Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

**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 (greater than 55 gallons):** Refill this container with LIBERTY METCHLORBUZIN (containing the active ingredients metolachlor and metribuzin) only. **DO NOT** reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times. After triple rinsing is complete, and if 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.

**SPILL, FIRE, LEAK or OTHER CHEMICAL EMERGENCY:** In case of spill or leak on floor or paved surfaces, soak up with sand earth, or synthetic absorbent. Remove to chemical waste area.

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

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