

#### U.S. ENVIRONMENTAL PROTECTION AGENCY

Office of Pesticide Programs
Registration Division (7505P)
1200 Pennsylvania Ave., N.W.
Washington, D.C. 20460

89168-78
----------

EPA Reg. Number:

Date of Issuance:

6/27/18

NOTICE OF PESTICIDE:

X Registration
Reregistration
(under FIFRA, as amended)

Term of Issuance: Conditional

Name of Pesticide Product:

LIBERTY S-MOC D

Name and Address of Registrant (include ZIP Code):

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

**Note:** Changes in labeling differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Registration Division prior to use of the label in commerce. In any correspondence on this product always refer to the above EPA registration number.

On the basis of information furnished by the registrant, the above named pesticide is hereby registered under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA).

Registration is in no way to be construed as an endorsement or recommendation of this product by the Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.

This product is conditionally registered in accordance with FIFRA section 3(c)(7)(A). You must comply with the following conditions:

1. Submit and/or cite all data required for registration/registration/registration review of your product under FIFRA when the Agency requires all registrants of similar products to submit such data.

Signature of Approving Official:	Date:
Mant Rowland	6/27/18
Grant Rowland, Product Manager 23	
Herbicide Branch, Registration Division (7505P)	

EPA Form 8570-6

- 2. You are required to comply with the data requirements described in the Generic Data Call-In (GDCI) identified below:
  - a. S-metolachlor GDCI-108800-1508

You must comply with all data requirements within the established deadlines. If you have questions about the GDCI listed above, you may contact the Chemical Review Manager in the Pesticide Reevaluation Division: <a href="http://iaspub.epa.gov/apex/pesticides/f?p=chemicalsearch:1">http://iaspub.epa.gov/apex/pesticides/f?p=chemicalsearch:1</a>

3. Submit one copy of the final printed label for the record before you release the product for shipment.

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 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) 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.

If you fail to satisfy these data requirements, EPA will consider appropriate regulatory action including, among other things, cancellation under FIFRA section 6(e). Your release for shipment of the product constitutes acceptance of these conditions. A stamped copy of the label is enclosed for your records. Please also note that the record for this product currently contains the following CSFs:

• Basic CSF dated 11/20/2017

If you have any questions, please contact Mindy Ondish by phone at 703-605-0723, or via email at ondish.mindy@epa.gov.

Enclosure



## LIBERTY S-MOC D

#### HERBICIDE

FOR WEED CONTROL IN BEANS, PEAS, AND LENTILS; CORN; COTTON; GRASSES GROWN FOR SEED; HORSERADISH; PEANUTS; POTATOES; PUMPKIN; RHUBARB; SAFFLOWERS; SWEET, GRAIN, OR FORAGE SORGHUM; SOYBEANS; SOYBEANS, IMMATURE SEED; SUGAR BEETS; **SUNFLOWERS; AND TOMATOES** 

ACTIVE INGREDIENT:	% BY WT.
S-metolachlor	82.4%
OTHER INGREDIENTS:	17.6%
TOTAL:	
This product contains 7.56 lbs. of active ingredient per gallon.	
This product is formulated as an emulsifiable concentrate (EC).	

### **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 detaile. (If you don't 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 Est. No.: \_\_\_\_\_ EPA Reg. No.: 89168-78

NET CONTENTS: \_\_\_\_GAL (\_\_\_L)

#### **Manufactured for:**

LIBERTY CROP PROTECTION, LLC 1880 Fall River Drive, Suite 100 Loveland, CO 80538

### ACCEPTED

Under the Federal Insecticide, Fungicide and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No.

89168-78

062118

	FIRST AID
IF IN EYES	Hold eye open and rinse slowly and gently with water for 15-20 minutes.
	• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing
	eye.
	Call a poison control center or doctor for treatment advice.
IF ON	Take off contaminated clothing.
SKIN OR	Rinse skin immediately with plenty of water for 15-20 minutes
CLOTHING	Call a poison control center or doctor for treatment advice.
IF	Call a poison control center or doctor immediately for treatment advice.
<b>SWALLOWED</b>	Have person sip a glass of water if able to swallow.
	Do not induce vomiting unless told to do so by the poison control center or doctor.
	Do not give anything by mouth to an unconscious person.
IF INHALED	Move person to fresh air.
	• If person is not breathing, call 911 or an ambulance, then give the person artificial
	respiration, preferably mouth-to-mouth, if possible.
	Call a poison control center or doctor for further treatment advice.

#### **HOTLINE NUMBER**

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

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

# PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS CAUTION

Causes moderate eye irritation. Harmful if swallowed or absorbed through skin. Avoid contact with eyes, skin, or clothing. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. 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<sup>®</sup> ≥14 mils
- Shoes plus socks

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 Control Statements**

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)(4-6)]. 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 hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

• Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

#### **ENVIRONMENTAL HAZARDS**

Do not apply directly to water, 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 water or rinsate.

#### **Groundwater Advisory**

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

#### **Surface Water Advisory**

S-metolachlor has the potential to contaminate surface water through ground spray drift. Under some conditions, it may also have a high potential for runoff into surface water (primarily via dissolution in runoff water) for several months post-application. These include poorly drained or wet soils with readily visible slopes toward adjacent surface waters, frequently flooded areas, areas overlaying extremely shallow groundwater, areas with in-field canals or ditches that drain to surface water, areas not separated from adjacent surface waters with vegetated filter strips, and areas overlaying tile drainage systems that drain to surface water.

#### **Mixing/Loading Instructions**

Care must be taken when using this product to prevent back-siphoning into wells, spills, or improper disposal of excess pesticide, spray mixtures, or rinsates. Check-valves or anti-siphoning devices must be used on all mixing and/or irrigation equipment.

This product may not be mixed or loaded within 50 feet of perennial or intermittent streams and rivers, natural or impounded lakes, and reservoirs. This product 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 this product into or from pesticide handling or application equipment or containers within 50 feet of any well are prohibited, unless conducted on an impervious pad constructed to withstand the weight of the heaviest load that may be positioned on or moved across the pad. Such a pad shall be designed and maintained to contain any product spills or equipment leaks, container or equipment rinse or wash water, and 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.

#### **DIRECTIONS FOR USE**

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

This product must be used only in accordance with instructions on this label or in separately published EPA-approved supplemental labeling for this product.

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.

#### 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:

- Coveralls
- Chemical-resistant gloves made of barrier laminate or Viton ≥14 mils
- Shoes plus socks

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

To avoid spray drift, do not apply under windy conditions. Avoid spray overlap, as crop injury may result.

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

#### PRODUCT INFORMATION

Observe all precautions and limitations on the labels of each product used in tank mixtures. Tank mixtures are permitted only in those states where the tank mix partner is registered. 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.

LIBERTY S-MOC D is a selective herbicide for use as a preplant surface-applied, preplant incorporated, or preemergence treatment in water or fluid fertilizer for control of most annual grasses and certain broadleaf weeds in beans, peas, and lentils; corn (all types); cotton; grasses grown for seed; peanuts; potatoes; safflowers; sweet, grain, or forage sorghum; soybeans; soybean, immature seed; sugar beets; sunflowers; and tomatoes.

Dry weather following preemergence application of LIBERTY S-MOC D or a tank mixture may reduce effectiveness. Cultivate if weeds develop. Where reference is made to weeds partially controlled, partial control can either mean erratic control from good to poor, or consistent control at a level below that generally considered acceptable for commercial weed control.

#### **Precautions**

• Injury may occur following the use of this product under abnormally high soil moisture conditions during early development of the crop.

#### Restrictions

- Do not use in nurseries, turf, or landscape plantings.
- Do not apply under conditions which favor runoff or wind erosion of soil containing this product to nontarget areas.
- If this product is incorporated, any supplemental tillage before planting must not exceed the depth of incorporation.

Certain states may have established rate limitations for atrazine within specific geographical areas.
 Consult your state lead pesticide control agency for additional information when tank mixing this product with atrazine-containing products. It is a violation of this label to deviate from state use regulations.

#### To prevent off-site movement due to runoff or wind erosion:

- 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 nontarget crops, unless at least 1/2 inch of rainfall has occurred between application and the first irrigation.

#### RESISTANCE-MANAGEMENT RECOMMENDATIONS

S-metolachlor, the active ingredient in this product, is a Group 15 herbicide. Any weed population may contain or develop plants naturally resistant to this product and other Group 15 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 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 resistancemanagement and/or integrated weed-management recommendations for specific crops and weed biotypes.
- For further information or to report suspected resistance, contact LIBERTY CROP PROTECTION, LLC at [855-466-8428 or 844-425-8488 or other appropriate telephone number].

#### **Management of Resistant Biotypes**

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

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

- If a naturally occurring resistant biotype is present in your application site, this product should be tank mixed or applied sequentially with an appropriately labeled herbicide with a different mode of action to achieve control.
- Cultural and mechanical control practices (e.g. crop rotation or tillage) may also be used as appropriate.
- Scout treated application site after herbicide applications and control escaping weeds including resistant biotypes before they set seed.
- Thoroughly clean equipment before leaving fields known to contain resistant biotypes.
- Contact your local sales representative, crop advisor, or extension agent to find out if suspected resistant weeds to this Mode of Actions have been found in your region. If resistant biotypes of target weeds have been reported, use the application rates of this product specified for your local conditions. Tank mix products so that there are multiple effective mechanisms of actions for each target weed.

#### **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.

#### **SOIL TEXTURES AND HERBICIDE RATES**

Where rates are based on coarse-, medium-, or fine-textured soils, it is understood that soil textural classes are generally categorized as follows:

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

Within rate ranges in the rate tables and elsewhere on this label, use the lower rate on soils relatively coarse-textured or low in organic matter; use the higher rate on soils relatively fine-textured or high in organic matter.

This product may be applied preemergence alone, or in combination with tank mix partners specified on this label, following preplant incorporated herbicides when used according to their label requirements, provided that such use is not prohibited on the respective labels.

Thoroughly clean sprayer or other application device before using. Dispose of cleaning solution in a responsible manner. Do not use a sprayer or applicator contaminated with any other materials, or crop damage or clogging of the application device may result.

### LIBERTY S-MOC D APPLIED ALONE Weeds Controlled

LIBERTY S-MOC D is taken up by the shoots and/or roots of emerging weeds. This uptake results in the inhibition of shoot and root tissue growth soon after weed germination. Because of this, LIBERTY S-MOC D will not control emerged weeds and should be applied prior to weed emergence.

If LIBERTY S-MOC D is incorporated, do not exceed a 2- to 3-inch depth. Any tillage after the LIBERTY S-MOC D incorporation and before planting should not exceed 2 to 3 inches.

Dry weather following application of LIBERTY S-MOC D may reduce weed control. Cultivate if weeds develop.

Where reference is made to weeds partially controlled, partial control can either mean erratic control from good to poor or consistent control at a level below that generally considered acceptable for commercial weed control. Control of these weeds can be erratic, due partially to variable weather conditions. The following procedures may improve the control of weeds listed as partially controlled in **Table 1:** 

- 1. Thoroughly till soil to destroy germinating and emerged weeds.
- 2. Plant crop into moist soil immediately after tillage. If this product is to be used preemergence, apply at planting or immediately after planting.
- 3. If available, sprinkler irrigate within 2 days after application. Apply 1/2 to 1 inch of water. Use lower water volume (1/2 inch) on coarse-textured soils and higher volume (1 inch) on fine-textured soils. Also, refer to the section on **Center Pivot Irrigation Application** for this method of applying this product.
- 4. If irrigation is not possible and rain does not occur within 2 days after planting and application, weed control may be decreased. Under these conditions, a uniform, shallow cultivation is recommended as soon as weeds emerge.

Table 1: Weeds Controlled or Partially Controlled by LIBERTY S-MOC D Applied Prior to Weed Emergence

-mergence  Common Name	Scientific Name	Control (C) Partial Control(PC)
GRASSES		r artial control(i c)
Barnyardgrass	Echinochloa crus-galli	С
Crabgrass, large	Digitaria ischaemum	С
Crabgrass, smooth	Digitaria sanguinalis	С
Crowfootgrass	Dactyloctenium aegyptium	С
Cupgrass, Prairie	Eriochloa contracta	С
Cupgrass, Southwestern	Eriochloa acuminata	С
Cupgrass, woolly	Eriochloa villosa	PC <sup>1</sup>
Foxtail, bristly	Setaria verticillata	С
Foxtail, giant	Setaria faberi	С
Foxtail, green	Setaria viridis	С
Foxtail, millet	Setaria italica	С
Foxtail, yellow	Setaria pumila	С
Goosegrass	Eleusine indica	С
Johnsongrass (seedling)	Sorghum halepense	PC
Millet, wild-proso	Panicum miliaceum	PC <sup>1</sup>
Panicum, fall	Panicum dichotomiflorum	С
Panicum, Texas	Panicum texanum	PC
Rice, red	Oryza punctata	С
Sandbur, field	Cenchrus spinifex	PC
Ryegrass, Italian	Lolium multiflorum	С
Sandbur, Southern	Cenchrus spinifex	PC
Shattercane	Sorghum bicolor	PC
Signalgrass, broadleaf	Urochloa platyphylla	С
Sorghum (Volunteer)	Sorghum bicolor	PC
Witchgrass	Panicum capillare	С
BROADLEAF WEEDS		
Amaranth, Palmer	Amaranthus palmeri	С
Amaranth, Powell	Amaranthus powellii	С
Beggarweed, Florida	Desmodium tortuosum	PC
Carpetweed	Mollugo verticillata	С
Eclipta	Eclipta prostrata	PC
Galinsoga, hairy	Galinsoga quadriradiata	С
Galinsoga, smallflower	Galinsoga parviflora	С

Common Name	Scientific Name	Control (C) Partial Control(PC)
Nightsahde, Eastern black	Solanum ptychanthum	С
Nightshade, hairy	Solanum physalifolium	PC
Pigweed, prostrate	Amaranthus blitoides	С
Pigweed, redroot	Amaranthus retroflexus	С
Pigweed, smooth	Amaranthus hybridus	С
Pigweed, tumble	Amaranthus albus	С
Purslane, common	Portulaca oleracea	PC
Pusley, Florida	Richardia scabra	С
Spiderwort, tropical	Commelina benghalensis	С
Waterhemp, common	Amaranthus rudis	С
Waterhemp, tall	Amaranthus tuberculatus	С
SEDGES		
Nutsedge, yellow	Cyperus esculentus	С

<sup>&</sup>lt;sup>1</sup>Refer to the corn section of this label for additional directions.

### REPLANT AND ROTATIONAL CROPS SECTION Replanted Crop Directions

This section covers replant crops that may be planted following a lost crop that has had an application of LIBERTY S-MOC D.

If a crop treated with LIBERTY S-MOC D is lost, any crop on this label, or on an EPA-approved supplemental LIBERTY S-MOC D label, may be replanted immediately provided that the rate of this product applied to the previous crop was not greater than the labeled rate for the crop to be replanted. If the first application was banded and the replant crop is planted in the center of the untreated bands, a second banded treatment may be applied at the rate for the use pattern for the replant crop, provided the application does not overlap the first application band.

#### **Rotational Crop Directions**

Do not rotate to food or feed crops other than those listed below.

Сгор	Crop Rotational Interval
Alfalfa	4 Months
Barley, oats, rye and wheat	4.5 Months
Clover (seeded)	9 Months
Tobacco, buckwheat, and rice	Spring following the application
All crops not listed	12 Months

#### Restrictions

- To avoid injury to rotational alfalfa or clover:
  - Do not apply more than 2.0 pints of this product per acre in the previous crop.
  - Do not make lay-by or other postemergent applications of this product in the previous crop.

Below in the rotational crop subsections A through C is a listing of rotational crop options that are made possible through S-metolachlor tolerances which were established by the EPA as crop groupings.

#### **Precautions**

- Rotating to crops within these crop groupings at less than 60 days may result in crop injury.
- If the rate of this product applied in the previous crops was greater than the rate listed here (Sections A-C below), these crops cannot be planted until the following spring.
- A. If not more than 1.33 pints per acre of LIBERTY S-MOC D was applied to the field, the following crops (as well as those listed under subsections B or C below) may be planted 60 days after

the last application. A second application of an S-metolachlor-containing product to the following crops is prohibited within 60 days of the original application.

**Crop Subgroup 1B - Root Vegetables:** garden beet, edible burdock, carrot, celeriac, turnip-rooted chervil, chicory, ginseng, horseradish, turnip-rooted parsley, parsnip, radish, oriental radish, rutabaga, salsify, black salsify, Spanish salsify, skirret, and turnip.

**Crop Subgroup 3 - Bulb Vegetables (if to be harvested green)** - garlic, great-headed garlic, leek, green onion, Welsh onion, shallot.

Winter squash (including pumpkins).

- B. If not more than 1.67 pints per acre of LIBERTY S-MOC D was applied to the field, the following crops (as well as any listed under subsection C below) may be planted 60 days after the last application. A second application of an S-metolachlor-containing product to the following crops is prohibited within 60 days of the original application.
  - **Crop Group 8 Fruiting Vegetables, except Cucurbits and Tabasco Peppers:** eggplant, groundcherry (*Physalis* spp.), pepino, peppers (bell, chili, cooking, pimento, and sweet), tomatillo, and tomato.
- C. If not more than 2.0 pints per acre of LIBERTY S-MOC D was applied to the field, the following crops may be planted 60 days after the last application. A second application of an S-metolachlor-containing product to the following crops is prohibited within 60 days of the original application.
  - **Crop Subgroup 1C Tuberous and Corn Vegetables:** arracacha; arrowroot; Chinese artichoke; Jerusalem artichoke; edible canna; bitter and sweet cassava; chayote (root); chufa; dasheen (taro); ginger; leren; potato; sweet potato; tanier; tumeric; yam bean; and yam, true.
  - **Crop Group 3 Bulb Vegetables (if to be harvested dry) -** garlic, great-headed garlic, leek, dry bulb and green onion, Welsh onion, shallot.

**Crop Subgroup 4B - Leaf Petiole Vegetables:** cardoon, celery, Chinese celery, celtuce, Florence fennel, rhubarb, and Swiss chard.

**Crop Subgroup 5A - Head and Stem Brassica Vegetables:** broccoli, Chinese broccoli, Brussels sprouts, cabbage, Chinese (Napa) cabbage, Chinese mustard, cauliflower, cavalo broccolo, and kohlrabi.

#### **APPLICATION PROCEDURES**

#### **APPLICATION TIMING**

LIBERTY S-MOC D alone or in some tank mixtures with other labeled herbicides may be applied for weed control in certain crops at various times. Refer to specific crop use directions to determine if application timings listed below are allowed.

**Preplant Surface-Applied:** For minimum-tillage or no-tillage systems only, LIBERTY S-MOC D alone and some LIBERTY S-MOC D tank mixtures may be applied up to 45 days before planting certain crops. Use only split applications for treatments made 30 to 45 days before planting, with 2/3 the labeled broadcast rate for the crop and soil texture applied initially and the remaining 1/3 at planting. Treatments less than 30 days before planting may be made either as a split or a single application. Refer to individual crop section on this label to determine if early preplant surface application is indicated. If weeds are present at the time of treatment, apply in a tank mixture combination with a contact herbicide (for example Paraquat or Glyphosate). Observe directions for use, precautions, and restrictions on the label of the contact herbicide. To the extent possible, do not move treated soil out of the row or move untreated soil to the surface during planting, or weed control will be diminished.

**Preplant Incorporated:** Apply LIBERTY S-MOC D to the soil and incorporate into the top 2 inches of soil within 14 days before planting, using a finishing disk, harrow, rolling cultivator, or similar implement capable of providing uniform 2-inch incorporation. Use a preplant incorporated application if furrow irrigation is used or when a period of dry weather after application is expected. If crop will be planted on beds, apply and incorporate LIBERTY S-MOC D after bed formation, unless specified otherwise.

**Preemergence:** Apply LIBERTY S-MOC D during planting (behind the planter) or after planting, but before weeds or crops emerge.

**Postemergence:** LIBERTY S-MOC D will not control emerged weeds so it must be applied to a weed-free soil surface or in tank mixture with products that provide postemergence control of weeds present at the time of application. Refer to the individual crop section of this label if a postemergence application is listed.

#### **SPECIAL APPLICATION PROCEDURES**

**CA Only (Beans, Peas, and Lentils; Corn; Safflowers): Preplant Incorporated:** Broadcast LIBERTY S-MOC D alone or with tank mix partners listed on this label to the soil and thoroughly incorporate with a disk or similar implement set to till 4 to 6 inches deep. For more thorough incorporation, till the soil in 2 different directions (cross-till). Crops may be planted on flat surface or on beds. Use caution when forming the beds that only soil from the LIBERTY S-MOC D treated zone is used (i.e., untreated soil should not be brought to soil surface). If the application is made to preformed beds, incorporate LIBERTY S-MOC D with a tillage implement set to till 2 to 4 inches deep. Care should be taken during tilling to keep the tilled (LIBERTY S-MOC D -treated) soil on the beds.

**Preemergence:** Apply LIBERTY S-MOC D after planting. Water with sprinkler or flood irrigation within 7 to 10 days.

Fall Application for Spring Weed Control (Only in IA, MN, ND, SD, WI, and portions of NE and IL - See specific instructions in the Beans, Peas, and Lentils; Corn; and Soybeans sections of this label for timing of application and other information): Use on medium and fine soils with greater than 2.5% organic matter that will be planted to corn or soybeans the next spring. Ground may be tilled before or after application. Do not exceed a 2 to 3-inch incorporation depth if tilled after treatment.

#### Restrictions

- Do not apply to frozen ground.
- If a spring application is made, the total rate of the fall plus spring applications must not exceed the maximum total rate for the specific crop.

Fall Application for Italian Ryegrass Control (Corn, Cotton, Grain and Forage Sorghum, and Soybean Only - See specific instructions in the Corn, Cotton, Grain and Forage Sorghum, and Soybean sections of this label for timing of application and other information): LIBERTY S-MOC D may be applied in the fall (September 1 to December 1) for residual control of glyphosate-resistant Italian ryegrass (*Lolium multiflorum*). A tillage operation may precede the application. Do not incorporate to a depth greater than 2 to 3 inches if tillage follows the application of LIBERTY S-MOC D. All crops on the label for this product may be planted the following spring after application. Refer to the crop sections on this label for specific directions.

#### Restrictions

- Do not apply this product to frozen ground.
- If a spring application is made, the combined total amount of this product applied in the fall plus the spring must not exceed the maximum seasonal S-metolachlor rate for the specific crop planted.

**Ground Application:** Apply LIBERTY S-MOC D alone or in tank mixtures by ground equipment in a minimum of 10 gallons of spray mixture per acre, unless otherwise specified.

Use sprayers that provide accurate and uniform application. For LIBERTY S-MOC D tank mixtures with wettable powder or dry flowable formulations, screens and strainers should be no finer than 50-mesh. Rinse sprayer thoroughly with clean water immediately after use.

Calculate the amount of herbicide needed for band treatment by the formula:

Band width in inches

Row width in inches

X

Broadcast rate
per acre

=

Amount needed
per acre of field

For information on applying in lower volumes of carrier, see Low Carrier Application section.

For application by air or through center pivot systems, see **Aerial Drift Management** and **Aerial Drift Reduction Advisory Information** sections.

For information on impregnating dry fertilizer, see **Dry Bulk Granular Fertilizer** section.

For information on application using variable-rate technologies, see **Variable-Rate Application** section.

#### **SPRAY EQUIPMENT**

#### LOW CARRIER APPLICATION

#### **For Broadcast Ground Application Only**

Use sprayers, such as Ag-Chem RoGator®, Hagie, John Deere Hi-Cycle TM, Melroe Spra-Coupe, Tyler Patriot™, or Willmar Air Ride®, that provide accurate and uniform application. **Only water may be used as a carrier.** Screens in suction and in-line strainers should be 50-mesh. Manufacturers may require that tip screens as fine as 100-mesh be used with some nozzles. Use a pump with capacity to: (1) maintain up to 35 to 40 psi at the nozzles and (2) provide sufficient agitation in tank to keep mixture in suspension. Use a minimum of 5.0 gallons of spray mixture per acre. Maximum recommended sprayer speed is 15 mph. Rinse sprayer thoroughly with clean water immediately after each use.

#### **Precautions**

- Use low pressure nozzles to reduce drift and increase application accuracy.
- Take care when using automatic rate controlling devices to spray the material within the rated working pressure and flow ranges of the nozzles selected.
- Use nozzle screens when specified by the manufacturer.
- Place all nozzles on 20-inch centers, except flooding types which should be placed on 40-inch centers. When Flat Fan-type nozzles are used, angles of 80° or 110° are recommended.
- Always read and follow the manufacturer's directions for optimum setup and performance of their nozzles or tips.

#### **AERIAL APPLICATION**

Apply LIBERTY S-MOC D in water alone or in tank mixtures with Atrazine, Linuron or Metribuzin in a minimum total volume of 2.0 gallons per acre by aircraft. LIBERTY S-MOC D may also be applied by air in combination with Benfluralin, Pendimethalin or Trifluralin. Avoid application under conditions where uniform coverage cannot be obtained or where excessive spray drift may occur. In order to assure that spray will be controllable within the target area when used according to label directions, make applications at a maximum height of 10 feet, using low-drift nozzles at a maximum pressure of 40 psi, and restrict application to periods when wind speed does not exceed 10 mph. To assure that spray will not adversely affect adjacent sensitive nontarget plants, apply LIBERTY S-MOC D alone or LIBERTY S-MOC D + Atrazine by aircraft at a minimum upwind distance of 400 feet from sensitive plants, or apply LIBERTY S-MOC D + Linuron or Metribuzin at a minimum upwind distance of 300 feet from sensitive plants.

#### **AERIAL DRIFT MANAGEMENT**

Avoiding spray drift at the application site is the responsibility of the applicator. The interaction of many equipment- and weather-related factors determines the potential for spray drift. The applicator and the grower are responsible for considering all these factors when making decisions.

The following drift management requirements must be followed to avoid off-target drift movement from aerial applications to agricultural field crops. These requirements do not apply to forestry applications, public health uses, or to applications using dry formulations.

- 1. The distance of the outermost nozzles on the boom must not exceed 3/4 the length of the wingspan or rotor.
- 2. Nozzles must always point backward parallel with the air stream and never be pointed downward more than 45 degrees.
- 3. Where states have more stringent regulations, they must be observed.

The applicator should be familiar with and take into account the information covered in the **Aerial Drift Reduction Advisory Information** section below.

## Aerial Drift Reduction Advisory Information Information on Droplet Size

The most effective way to reduce drift potential is to apply large droplets. The best drift management strategy is to apply the largest droplets that provide sufficient coverage and control. Applying larger droplets reduces drift potential, but will not prevent drift if applications are made improperly, or under unfavorable environmental conditions (see **Wind, Temperature and Humidity**, and **Temperature Inversions**).

#### **Controlling Droplet Size**

- **Volume** Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets.
- **Pressure** Do not exceed the nozzle manufacturer's recommended pressures. For many nozzle types, lower pressure produces larger droplets. When higher flow rates are needed, use higher flow rate nozzles instead of increasing pressure.
- **Number of Nozzles -** Use the minimum number of nozzles that provide uniform coverage.
- **Nozzle Orientation** Orienting nozzles so that the spray is released parallel to the airstream produces larger droplets than other orientations and is the recommended practice. Significant deflection from horizontal will reduce droplet size and increase drift potential.
- **Nozzle Type** Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles. Solid stream nozzles oriented straight back produce the largest droplets and the lowest drift.

#### **Application Height**

Applications should not be made at a height greater than 10 feet above the top of the largest plants, unless a greater height is required for aircraft safety. Making applications at the lowest height that is safe reduces exposure of droplets to evaporation and wind.

#### **Swath Adjustment**

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

#### Wind

Drift potential is lowest between wind speeds of 2 to 10 mph. However, many factors, including droplet size and equipment type, determine drift potential at any given speed. Application should be avoided below 2 mph due to variable wind direction and high inversion potential. **Note:** Local terrain can influence wind patterns.

#### **Temperature and Humidity**

When making applications in low relative humidity, set up equipment to produce larger droplets to compensate for evaporation. Droplet evaporation is greatest when conditions are both hot and dry.

#### **Temperature Inversions**

Applications should not occur during a temperature inversion because drift potential is high. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions due to the light variable winds common during inversions. Temperature inversions are characterized by increasing temperatures with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog; however, if fog is not

present, inversions can also be identified by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.

#### **Sensitive Areas**

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

Avoid application to humans or animals. Flagmen and loaders should avoid inhalation of spray mist and prolonged contact with skin.

#### **CENTER PIVOT IRRIGATION APPLICATION**

This product alone or in tank mixture with other herbicides on this label, which are registered for center pivot application, may be applied in irrigation water preemergence (after planting, but before weeds or crop emerge) at rates specified on this label. This product also may be applied postemergence to the crop and preemergence to weeds in crops where postemergence applications are allowed on this label. Follow all restrictions (height, timing, rate, etc.) to avoid illegal residues. Apply this product only through a center pivot irrigation system. Do not apply this product through any other type of irrigation system. Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from nonuniform 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**

- 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.
- 10. Apply in 1/2 to 1 inch of water. Use the lower water volume (1/2 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.

#### **Precaution for Center Pivot Applications**

• Where sprinkler distribution patterns do not overlap sufficiently, unacceptable weed control may result. Where sprinkler distribution patterns overlap excessively, crop injury may result.

#### **DRY BULK GRANULAR FERTILIZERS**

Many dry bulk granular fertilizers may be impregnated or coated with LIBERTY S-MOC D alone or selected LIBERTY S-MOC D tank mixtures which are registered for preplant incorporated or preplant surface applications which are used to control weeds in crops on the LIBERTY S-MOC D label and are not prohibited from use on dry bulk granular fertilizers.

When applying LIBERTY S-MOC D or LIBERTY S-MOC D mixtures with dry bulk granular fertilizers, follow all directions for use and precautions on the respective product labels, regarding target crops, rates per acre, soil texture, application methods (including timing of application), and rotational crops. All individual state regulations relating to dry bulk granular fertilizer blending, registration, labeling, and application are the responsibility of the individual and/or company selling the herbicide/fertilizer mixture.

Prepare the herbicide/fertilizer mixtures by using any closed drum, belt, ribbon, or other commonly used dry bulk fertilizer blender. Nozzles used to spray LIBERTY S-MOC D and LIBERTY S-MOC D mixtures onto the fertilizer must be placed to provide uniform spray coverage. Care should be taken to aim the spray directly onto the fertilizer only and to avoid spraying the walls of the blender.

If the herbicide/fertilizer mixture is too wet, add a highly absorptive material, such as Agsorb® or Celatom MP-79®, or similar granular clay or diatomaceous earth materials, to obtain a dry, free-flowing mixture. Add absorptive materials 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 material being used. Generally, less than 2% by weight of absorptive material will be needed. Avoid using more than 5% absorptive material by weight.

Calculate amounts of LIBERTY S-MOC D, Atrazine, Atrazine + Simazine, Ethafluralin, Linuron, Metribuzin or Simazine by the following formula:

2000 pounds of fertilizer per acre		y pints per acre of liquid or flowable product		pints of liquid or flowable product per ton of fertilizer	
2000 pounds of fertilizer per acre	Χ	pounds per acre of dry product	=	pounds of dry product per ton of fertilizer	

#### Pneumatic (Compressed Air) Application (LIBERTY S-MOC D Alone)

High humidity, high urea concentrations, low fertilizer use rates, and dusty fertilizer may cause fertilizer mixture to build up or plug the distributor head, air tubes, or nozzle deflector plates. To minimize buildup, premix LIBERTY S-MOC D with Exxon Aromatic 200 at a rate of 1.0 to 4.0 pints per gallon of LIBERTY S-MOC D. 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**

- Use mixtures of this product and Aromatic 200 on dry fertilizer only. Poor results or crop injury may
  result if a mixture of this product and Aromatic 200 are used in water or liquid fertilizer solutions for
  spraying applications.
- When impregnating LIBERTY S-MOC D in a blender before application, a drier mixture can be attained by substituting a drying agent for Aromatic 200. The use of Agsorb FG or drying agents of 6/30 particle size are recommended.

#### Restrictions

• To avoid potential for explosion, do not impregnate this product or mixtures of this product on ammonium nitrate, potassium nitrate, or sodium nitrate, either alone or in blends with other fertilizers.

- Do not use this product or mixtures of this product on straight limestone, since absorption will not be achieved. Fertilizer blends containing limestone can be impregnated.
- Do not use drying agents with the On-The-Go impregnation equipment.

#### **Application**

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 to prevent possible crop injury. Nonuniform application may also result in unsatisfactory weed control. In areas where conventional tillage is practiced, a shallow incorporation of the mixture into the soil may improve 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.

#### **Precaution**

• To avoid crop injury, do not use the herbicide/fertilizer mixture on crops where bedding occurs.

#### **MIXING INSTRUCTIONS**

#### **LIBERTY S-MOC D Alone**

Mix LIBERTY S-MOC D with water or fluid fertilizer and apply as a spray. Fill the spray tank 1/2 to 3/4 full with water or fluid fertilizer, add the proper amount of LIBERTY S-MOC D, and then add the rest of the water or fluid fertilizer. Provide sufficient agitation during mixing and application to maintain a uniform emulsion.

#### **LIBERTY S-MOC D in 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.

#### **Tank Mix Instructions**

For each mixture, check compatibility as described below before mixing in spray tank. When adding ingredients to the mixture, allow time for each ingredient to be thoroughly mixed before adding the next. Be sure to agitate during mixing and application to maintain a uniform suspension.

- 1. Fill the spray tank 1/4 full with water, and start agitation
- 2. Add the following herbicides and allow it to become dispersed
  - a. 2,4-D, 2,4-DB, Atrazine, Atrazine + Dicamba, Atrazine + Simazine, Benfluralin, Bentazon, Clomazone, Dicamba, EPTC, Ethalfluralin, Fluometuron, Glufosinate, Glufosinate + Atrazine, Imazaquin, Imazethapyr, Isoxaflutole, Linuron, Metribuzin, Metribuzin + Chlorimuron, MSMA, Pendimethalin, Prometryn, Simazine or Trifluralin
- 3. Then add this product
- 4. Then add Paraquat, Glyphosate or Glyphosate + 2,4-D if these products are being used
- 5. Add the rest of the water

For tank mixtures with Atrazine, Atrazine + Dicamba, Atrazine + Simazine, Clomazone, Dicamba, EPTC, Ethafluralin, Fluometuron\*, Imazaquin, Imazethapyr, Isoxaflutole, Linuron, Metribuzin, Metribuzin + Chlorimuron Ethyl, Pendimethalin\*, Prometryn, Simazine or Trifluralin, fluid fertilizers may replace all or part of the water as carrier, except in the Atrazine postemergence and the Dicamba postemergence tank mixes. For tank mixtures with Atrazine, see additional mixing instructions on the Atrazine label. For each mixture, check compatibility with fluid fertilizer, as described below, before mixing in spray tank. For all tank mixtures, agitate during mixing and application to maintain a uniform suspension.

\*See **Special Mixing Instructions** for tank mixtures with Fluometuron and with Atrazine or Simazine + Pendimethalin under the appropriate tank mixture section.

For directions on how to conduct a compatibility test, see the **Compatibility Test** section below.

#### **COMPATIBILITY TEST**

A jar test is recommended before tank mixing to ensure compatibility of LIBERTY S-MOC D with other pesticides. The following test assumes a spray volume of 25 gallons per acre. For other spray volumes, make appropriate changes in the ingredients.

Nitrogen solutions or complete fluid fertilizers may replace all or part of the water in the spray. 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 2 one guart jars with tight lids.
  - a. **Restrictions:** 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 tsp. or 1.2 milliliters of a compatibility agent approved for this use, such as [Altitude Binder™ or Innvictis Envelop™, or other appropriate product] (1/4 tsp. 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 specified 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 in this label.

#### **CROP USE DIRECTIONS**

This product contains 7.56 pounds of S-metolachlor active ingredient (a.i.) per gallon. The equivalent amount of a.i. contained in this product is shown below:

Amount of LIBERTY S-MOC D	Pounds of A.I. Contained in LIBERTY S-MOC D
(Pints per Acre)	S-metolachlor a.i.
0.5	0.47
0.66	0.62
0.8	0.76
0.85	0.80
1	0.95
1.33	1.26
1.5	1.42
1.67	1.58
2	1.89
2.33	2.20
2.5	2.36
2.6	2.46
3.6	3.40
3.9	3.69

#### **CORN (ALL TYPES) - LIBERTY S-MOC D ALONE**

Apply LIBERTY S-MOC D, either preplant surface, preplant incorporated, preemergence, postemergence, or lay-by, using the appropriate rate specified below.

#### PREPLANT SURFACE-APPLIED

Refer to instructions for use of LIBERTY S-MOC D alone under **Application Procedures**.

#### **Fall Application for Spring Weed Control:**

- 1. Apply after September 30 in ND, SD, MN, WI, and north of Route 30 in IA.
- 2. Apply after October 15 north of Route 91 in NE and south of Route 30 in IA.
- 3. Apply after October 31 north of Route 136 in IL.

In all locations, apply to crop stubble after harvest when the sustained soil temperature at a 4-inch depth is less than 55°F and falling. In minimum-till or no-tillage systems on soils having greater than 2.5% organic matter, use 1.67 to 2.0 pints per acre on medium-textured and 2.0 pints per acre on fine-textured soils. A tillage operation may precede the application. A fall and/or a spring tillage may follow application, but do not exceed an incorporation depth greater than 2 to 3 inches. Minimize furrow and ridge formation in the tillage operations.

#### Restrictions

- Do not apply to frozen ground.
- If a spring application is made, the total rate of the fall plus spring applications must not exceed the maximum total rate for corn (3.9 pints per acre depending on soil texture).

**Fall Application for Italian Ryegrass Control:** LIBERTY S-MOC D may be applied for residual control of glyphosate-resistant Italian ryegrass (*Lolium multiflorum*). Apply LIBERTY S-MOC D at 1.33 to 1.67 pints per acre in the fall (September 1 to December 1) after harvest of the previous crop and prior to Italian ryegrass emergence. Use the lower LIBERTY S-MOC D rate for coarse-textured soils and the higher rate for fine-textured soils. A tillage operation may precede the application. If tillage follows the application of this product, avoid incorporating to a depth greater than 2 to 3 inches. For fall applications after emergence of glyphosate-resistant Italian ryegrass, Paraquat can be tank mixed with LIBERTY S-MOC D to control emerged ryegrass. Refer to the Paraquat label for specific rates, application instructions, and restrictions. Other registered herbicides may be tank mixed with LIBERTY S-MOC D for control or improved control of other weeds present at the time of application.

#### Restrictions

- Do not apply this product to frozen ground.
- If a spring application is made, the combined total amount of this product applied in the fall plus spring must not exceed the maximum seasonal S-metolachlor rate for corn (3.9 pints per acre depending on soil texture).

**Fall Application for Control or Suppression of Yellow Nutsedge (ID, OR, and WA only):** For preemergent control or suppression of yellow nutsedge the following spring, apply 1.33 pints per acre of LIBERTY S-MOC D in the fall after the harvest of the previous crop but before freeze-up. Fall applications of LIBERTY S-MOC D can be surface-applied or incorporated.

#### Restrictions

- Make no more than one fall application per crop.
- Apply no more than 1.33 pints per acre in a single fall preplant application.
- Do not apply to frozen ground.
- If a spring application is made, the combined total amount of this product applied in the fall plus spring must not exceed the maximum seasonal S-metolachlor rate for corn (3.9 pints per acre depending on soil texture).

#### **EARLY PREPLANT APPLICATIONS**

Use on medium- and fine-textured soils with minimum-tillage or no-tillage systems in CO, IA, IL, IN, KS, KY, MN, MO, MT, ND, NE, SD, TN, WI, and WY. Apply 2/3 the specified rate of LIBERTY S-MOC D (1.67 pints per acre on medium soils and 2.0 pints per acre on fine soils) as a split treatment 30 to 45 days before planting and the remainder at planting. Applications made less than 30 days prior to planting may be as either a split or single treatment. Apply 1.33 pints per acre on coarse soils not more than 2 weeks before planting.

#### Restrictions

• If a spring application is made, the total rate of the fall plus spring applications must not exceed the maximum total rate for corn (3.9 pints per acre depending on soil texture).

On medium- and fine-textured soils with minimum- or no-tillage systems in CT, DE, MA, MD, ME, MI, NH, NY, OH, PA, RI, VA, VT, and WV, preplant surface applications may be applied following the directions for use above. If the amount of rainfall results in unsatisfactory length of weed control following the earlier treatment, a postemergence application of an appropriately labeled broadleaf and/or grass weed herbicide may be used, i.e., Atrazine, Atrazine + Metolachlor/S-metolachlor, Bentazon, Bromoxynil, Dicamba, Nicosulfuron, Primsulfuron, Primisulfuron + Prosulfuron or 2,4-D. If the postemergence treatment includes the herbicide used preplant surface-applied, do not exceed the total labeled rate for corn on a given soil texture. Observe all directons for use, precatuions and limitations on the label of the postemergent herbicide.

#### PREPLANT INCORPORATED OR PREEMERGENCE

Follow instructions for use of LIBERTY S-MOC D alone under **Application Procedures.** On coarse soils, apply 1.0 to 1.33 pints per acre of LIBERTY S-MOC D if organic matter content is less than 3%, or 1.33 pints per acre if organic matter content is 3% or greater. On medium soils, apply 1.33 to 1.67 pints per acre of LIBERTY S-MOC D. On fine soils, apply 1.33 to 1.67 pints per acre of LIBERTY S-MOC D if organic matter content is less than 3%, or 1.67 to 2.0 pints per acre if organic matter content is 3% or greater.

#### **POSTEMERGENCE OR LAY-BY**

To extend the duration of weed control in corn, a maximum rate of 2.0 pints per acre of LIBERTY S-MOC D may be applied after corn emergence until the corn plants reach 40 inches in height, following any preplant surface-applied, preplant incorporated, or preemergence herbicide application, including LIBERTY S-MOC D. For best results, applications should be made to soil free of emerged weeds and directed toward the base of corn plants in excess of 5 inches tall.

#### Restrictions for all applications to corn

- Do not graze or feed forage from treated areas for 30 days following application.
- **Preharvest Interval (PHI):** Do not harvest sweet corn ears from treated areas for 30 days following application.
- The total rate of this product applied on corn during anyone crop year should not exceed 3.9 pints per acre, depending on soil texture.

#### PROBLEM WEED CONTROL DIRECTIONS

**Shattercane, Wild Proso Millet, Woolly Cupgrass, and Eclipta - Partial Control:** For more consistent partial control of shattercane, wild proso millet, woolly cupgrass, or eclipta, apply 1.0 to 1.33 pints per acre of LIBERTY S-MOC D preplant incorporated followed by 1.0 to 1.33 pints per acre of LIBERTY S-MOC D preemergence. Make the preemergence application during or after planting, but before weeds and corn emerge. Apply the 1.33 pints per acre rate of this product when a heavy infestation of shattercane, wild proso millet, woolly cupgrass, or eclipta is expected. A shallow cultivation may be needed to control any late emerging weeds.

**Woolly Cupgrass and Wild Proso Millet Control Program:** For control of these species, use the following 3-step program:

- 1. Apply LIBERTY S-MOC D early preplant, preplant incorporated, or preemergence at 1.67 pints per acre on medium soils and 2.0 pints per acre on fine-textured soils, up to the maximum label rate. Lightly incorporate with a rotary hoe if rainfall does not occur within 5 to 7 days.
- 2. Apply a postemergence tank mix of labeled rates of Primisulfuron-methyl or Prosulfuron + Primisulfuron-methyl plus Nicosulfuron plus 1.0 quart of crop oil concentrate plus 1.0 gallon per acre of 28% nitrogen, or the equivalent amount of ammonium sulfate, when grasses are 2 to 3 inches tall and the corn is at least 4 inches tall.
- 3. Cultivate 14 to 21 days after the postemergence application.

#### Restrictions

- Do not apply more than the labeled application rate for a given soil texture per year, either as a single or split treatment applications.
- In corn, use up to 2.5 pints per acre of this product preplant surface, replant incorporated or preemergence treatment on soils having an organic matter contents between 6% and 20%.
- In the event of escape of annual weeds following a preplant surface, preplant incorporated, or preemergence treatment of this product, follow with a postemergence application of an appropriately labeled broadleaf and/or grass weed herbicide, e.g., Atrazine, Atrazine + Metolachlor/S-metolachlor, Bentazon, Bromoxynil, Dicamba, Nicosulfuron, Primisulfuron, Primisulfuron + Prosulfuron, or 2,4-D. If the postemergence treatment includes the herbicide used in the earlier treatment, do not exceed the total labeled rate for corn ion a given soil texture.
- Bromoxynil may be applied postemergence alone or in tank mix combination with Atrazine. Do not exceed 1.2 lbs. a.i. per acre of Atrazine in tank mix combination with Bromoxynil postemergence.
- Do not use this product on peat or muck soils.

#### **CORN - LIBERTY S-MOC D COMBINATIONS**

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.

LIBERTY S-MOC D in any tank mixture for corn may be applied in water or fluid fertilizer before corn emerges. Use only water as a carrier when LIBERTY S-MOC D is applied after corn emergence.

#### Restrictions

- Do not graze or feed forage from treated areas for 30 days following application.
- **Preharvest Interval (PHI):** Do not harvest sweet corn ears from treated areas for 30 days following application.

**Important: For Tank Mixtures with Atrazine** — If applying this product in tank mixture with Atrazine, all the restrictions and rate limitations on the Atrazine label must be followed, if more restrictive/protective than those on this label. In addition, if Atrazine is/must be applied at rates lower than those specified on this label, broadleaf weed control may be affected. Refer to the Atrazine label for weeds controlled at the reduced rates.

Table 2: LIBERTY S-MOC D Tank Mixtures for Corn - Additional Weeds Controlled and Special Instructions

	This Product + Atrazine and/or Simazine (Preplant Surface, PPI, PRE)	This Product + Atrazine (Post)	This Product +- Dicamba (Field Corn)	This Product + Atrazine + Linuron	This Product + Atrazine or Simazine + Pendimethalin	This Product + Atrazine + Dicamba	This Product + Isoxaflutole
Special Mixing Instructions					1		
Comments	2,3,4,5	2,3		2,3	2,3	4	4
Browntop panicum	X			X	Х		Х
Cocklebur	Х	0	0	X	X		0-X

	This Product + Atrazine and/or	This Product + Atrazine	This Product + - Dicamba	This Product + Atrazine + Linuron	This Product + Atrazine or	This Product + Atrazine + Dicamba	This Product + Isoxaflutole
	Simazine (Preplant Surface, PPI, PRE)	(Post)	(Field Corn)		Simazine + Pendimethalin		
Common purslane	X			X	X	X	X
Hairy nightshade	X			X	X		X
Jimsonweed		X	0			X	X
Kochia		X				X	X
Lambsquarters	X	Х	X	X	X	Х	Х
Morningglory	X	0	0	X	X		X
Mustard		X				X	X
Pigweed				X	X	X	X
Prickly sida		X					
Ragweed	X	Х	Х	Х	X	Х	Х
Smartweed	X	Х	X	X	X	Х	Х
Velvetleaf	X	Х	0	Х	Х	0-X	0-X

X = control; 0 = partial control; 0-X = partial to full control depending on ratio of products used or on weed population

#### Instructions —Table 1: This Product in Tank Mixtures

- 1. Special Mixing Instructions for this product + Atrazine or Simazine and Pendimethalin.
  - A. Fill the spray tank 1/4 full with water or fluid fertilizer and start agitation.
  - B. To aid compatibility, add a compatibility agent, at 4 pints per 100 gallons of spray mixture.
  - C. Then add the Atrazine or Simazine and allow it to become dispersed.
  - D. Then add this product and Pendimethalin.
  - E. Add the rest of the water.
- 2. See additional mixing instructions on the Atrazine label.
- 3. Do not apply more than a total of 2.5 lbs. a.i. of Atrazine per acre per year. However, certain states may have established rate limitations for Atrazine within specific geographical areas. Consult your state lead pesticide control agency for additional information. It is a violation of this label to deviate from state use regulations.
- 4. In Minimum-Tillage and No-Tillage systems, mix with Paraquat for control of most emerged annual weeds and suppression of perennial weeds; or with Glyphosate + 2,4-D for suppression of emerged Field bindweed and control or suppression of annual weeds; or with Glyphosate for control of most emerged annual and perennial weeds.
- 5. Refer to LIBERTY S-MOC D Combination Tank Mixture with Atrazine; or Atrazine + 2,4-D; or Atrazine + 2,4-D + Dicamba for Minimum-Tillage or No-Tillage Systems sections for specific directions for 2,4-D or Dicamba burndown combinations in Minimum-Tillage and No-Tillage systems.

LIBERTY S-MOC D in any tank mixture for corn may be applied in water or fluid fertilizer, except as noted. Refer to **Corn (All Types) – LIBERTY S-MOC D Alone** for specified sequential postemergence treatments if escape weeds develop.

#### **Restrictions**

- For all applications to corn, do not graze or feed forage from treated areas for 30 days following application.
- **Preharvest Interval (PHI):** Do not harvest sweet corn ears from treated areas for 30 days following application.
- When applying this product in tank mixture with Atrazine, do not exceed a total of 2.5 lbs. a.i. of atrazine per acre per year.

### TANK MIXTURE WITH ATRAZINE OR SIMAZINE, OR ATRAZINE + SIMAZINE — PREPLANT SURFACE, PREPLANT INCORPORATED, OR PREEMERGENCE

In addition to the weeds controlled by this product alone, this product + Atrazine or Simazine, or this product + Atrazine + Simazine, applied preplant surface, preplant incorporated, or preemergence, also controls the following weeds: browntop panicum, cocklebur, common purslane, hairy nightshade,

lambsquarters, morningglory, ragweed, smartweed, and velvetleaf. Apply this product + Atrazine or Simazine, or this product + Atrazine + Simazine either preplant surface, preplant incorporated, or preemergence.

**Preplant Surface-Applied:** Follow instructions for use of this product alone under **Application Procedures** and under application instructions for this product alone on corn. Apply labeled rates Atrazine or Simazine, or Atrazine + Simazine combined with 1.67 pints per acre of this product on medium soils or with 1.67 to 2 pints per acre of this product on fine soils in minimum tillage and no-tillage systems in CO, IA, IL, IN, KS, KY, MN, MO, MT, ND, NE, SD, TN, WI, and WY. Apply the tank mixtures as a split or single treatment in those states and as indicated in the **LIBERTY S-MOC D Alone - Preplant Surface-Applied** section of the label for Corn. On coarse soils, apply 1.33 pints per acre of this product and labeled rates of Atrazine or Simazine, or Atrazine + Simazine combined.

**Preplant Incorporated or Preemergence:** Follow instructions for use of this product alone under **Application Procedures**. This product may be applied in tank mix combination with labeled rates of Atrazine or Simazine or Atrazine + Simazine. Apply this product according to the rates in **Table 3**.

#### Restriction

• Do not apply more than the labeled rate for a given soil texture per year, either as a split or single treatment.

#### Shattercane and Wild Proso Millet - Partial Control

For more consistent partial control of shattercane or wild proso millet where LIBERTY S-MOC D is applied in tank mixture or sequentially with other registered corn herbicides, the following applications may be made:

- 1. Apply 1.0 to 1.33 pints per acre of this product + 2.0 lbs. a.i. per acre of Atrazine or Simazine preplant incorporated, followed by 1.0 to 1.33 pints per acre of this product preemergence. Make the preemergence application during or after planting, but before weeds and corn emerge.
- 2. Apply this product at 1.33 pints per acre alone or in tank mix combination with up to 2 lbs. a.i. per acre of Atrazine or Simazine, preplant incorporated. Do not exceed the total rate of triazine herbicide specified in combination with LIBERTY S-MOC D for corn grown on a given soil texture. Follow with a post-directed application of Ametryn at labeled rates. Refer to the Ametryn label for specific directions for the post-directed application.
- 3. Apply EPTC or butylate formulations at labeled rates preplant incorporated, followed by a preemergence application of LIBERTY S-MOC D at 1.0 to 1.33 pints per acre. Do not use EPTC or Butylate on soils where rapid degradation has been shown to occur. Make the preemergence application during or after planting, but before weeds and corn emerge.

#### **Precaution**

When following the application regimes in numbers 1 to 3 above, a shallow cultivation may be needed
after the preemergence or postemergence application to help control any late emerging shattercane
or wild proso millet plants.

#### Restriction

• Do not apply more than 2.0 pints per acre of this product in the preplant incorporated plus preemergence application on soils with less than 6% organic matter.

Table 3: LIBERTY S-MOC D + Atrazine or Simizane, or LIBERTY S-MOC D + Atrazine + Simazine,

**Preplant Incorporated or Preemergence - Corn (All Types)** 

•	Broadcast Rates Per Acre			
	Less than 3% Organic Matter		3% Organic Matter or Greater	
	This Product + Atrazine* OR	– OR – This Product + Atrazine**	This Product + Atrazine* OR	– OR – This Product + Atrazine**
Soil Texture	Simazine*	+ Simazine**	Simazine*	+ Simazine**
	0.01.10.1		4.0.1	
COARSE	0.8 to 1.0 pt.	0.8 to 1.0 pt.	1.0 pt.	1.0 pt.
	+	+	+	+
	See label for	Use 1:1 ratio	See label for	Use 1:1 ratio
	application rates	See label for	application rates	See label for
		application rates		application rates
MEDIUM	1.0 to 1.33 pts.	1.0 to 1.33 pts.	1.33 pts.	1.33 pts.
	+	+	+	+
	See label for	Use 1:1 ratio	See label for	Use 1:1 ratio
	application rates	See label for	application rates	See label for
		application rates		application rates
FINE	1.33 pts.	1.33 pts.	1.33 to 1.67 pts.	1.33 to 1.67 pts.
	+	+	+	+
	See label for	Use 1:1 ratio	See label for	Use 1:1 ratio
	application rates	See label for	application	See label for
	application rates	application rates	rates.***	application rates
Muck or Peat		application rates	Tatoo.	application rates
(soils with more than 20% organic	DO NOT USE			
matter)				

<sup>\*</sup>Use Simazine in preference to Atrazine when heavy infestations of crabgrass or fall panicum are expected. On soils having between 6% and 20% organic matter, this product may be used up to 2.33 pints per acre in tank mix combination with Atrazine. Refer to the Atrazine label for rates, restrictions and limitations.

#### **TANK MIXTURE WITH ATRAZNE - POSTEMERGENCE**

Weeds Controlled		Weeds Partially Controlled
Barnyardgrass (watergrass)	Lambsquarters	Cocklebur
Crabgrass	Mustard	Morningglory
Crowfootgrass	Pigweed	Yellow nutsedge
Fall panicum	Prickly sida	_
Giant foxtail	Purslane	
Green foxtail	Ragweed	
Yellow foxtail	Smartweed	
Jimsonweed	Velvetleaf	
Kochia		

Apply labeled rate of atrazine with 1 pint of this product per acre on coarse soils, with 1.33 pints of this product per acre on medium soils or with 1.33 to 1.67 pints of this product per acre on fine soils\*. Apply this tank mixture before grass and broadleaf weeds pass the 2-leaf stage and before corn exceeds 5

<sup>\*\*</sup> When using the tank mixture of this product + Atrazine + Simazine, use a 1:1 ratio of each when heavy broadleaf weed infestations are expected. When heavy infestations of crabgrass or fall panicum are expected, use a 1:2 ratio of Atrazine + Simazine.

<sup>\*\*\*</sup> For cocklebur, yellow nutsedge, and velvetleaf control on fine-textured soils above 3% organic matter, apply 1.33 to 1.67 pints per acre of this product with labeled rate of Atrazine, or the same total amount of Atrazine + Simazine.

inches in height. Application to weeds larger than the 2-leaf stage will generally result in unsatisfactory control.

**Lay-by:** Apply to corn plants not more than 12 inches tall. Applications to corn in excess of 5 inches should be directed to the base of the corn plants; whereas, applications to corn plants less than 5 inches tall may be made over the top. Occasionally, some corn leaf burn may result, but this should not affect later growth or yield. Do not apply this postemergence tank mixture in fluid fertilizer, or severe crop injury may occur.

\*For better control of cocklebur, morningglory, velvetleaf, and yellow nutsedge on fine-textured soils above 3% organic matter, apply higher labeled rate of Atrazine with 1.33 to 1.67 pints per acre of LIBERTY S-MOC D.

Tank mixtures of LIBERTY S-MOC D + Atrazine may be applied following use of any registered preplant surface-applied, preplant incorporated, or preemergence corn herbicide, including LIBERTY S-MOC D + Atrazine.

#### Restriction

• Do not apply more than 3.9 pints of this product or more than 2.5 lbs. a.i. of Atrazine per acre during any one crop year. Refer to the atrazine label for geographic, soil-texture, and rotational restrictions.

#### **TANK MIXTURE WITH DICAMBA**

**Preemergence:** Use this tank mixture only on field corn which is flat-planted (no furrows) in CO, IA, IL, IN, KS, MN, NE, OH, SD, and WI.

In addition to the weeds controlled by LIBERTY S-MOC D alone, LIBERTY S-MOC D + Dicamba, applied preemergence, also controls lambsquarters, ragweed, smartweed, cocklebur\*, jimsonweed\*, morningglory\*, and velvetleaf\*.

\*Partially controlled.

Apply LIBERTY S-MOC D + Dicamba preemergence. Broadcast labeled rate of Dicamba with 1.33 pints of this product per acre on medium soils, or with 1.33 to 1.67 pints of this product per acre on fine soils. Apply this tank mixture to the soil surface at planting or after planting, but before corn emerges. Plant corn at least 1.5 inches deep and apply behind planting equipment, avoiding incorporation by the planter wheel or other seed covering device. Do not incorporate before corn emergence. If it is necessary to rotary hoe to break the soil crust, do not disturb the soil more than 1/2 inch deep.

#### **Precaution**

• Avoid drift to sensitive nontarget plants, such as soybeans, during application, or injury may occur.

#### **Restrictions:**

- Do not apply on coarse soils or on soils with less than 2.5% organic matter.
- Do not apply by aircraft.

Postemergence for Control of Pigweed (Mid-Atlantic states, including DE, MD, PA, VA, and WV): Apply 1.0 to 1.5 pints of this product per acre + labeled rate of Dicamba by ground equipment when pigweed plants are less than 3 inches tall and before corn exceeds 5 inches in height in a minimum of 20 gallons of spray per acre. Use the lower rate on coarse-textured and low organic matter soils. Use the higher rate on fine-textured and high organic matter soils.

#### **Precaution**

Avoid drift to sensitive nontarget plants, such as soybeans, during application, or injury may occur

#### Restriction

• Do not apply with aircraft.

# TANK MIXTURE WITH ATRAZINE OR SIMAZINE + PENDIMETHALIN FOR PROLONGED CONTROL OF LAMBSQUARTERS AND PIGWEED IN FIELD CORN ONLY (NORTHEAST U.S., INCLUDING MI, IN, KY, AND STATES EAST OF THESE)

For prolonged control of lambsquarters and pigweed, in addition to a broad spectrum of annual broadleaf and grass weeds, LIBERTY S-MOC D in tank mix combination with labeled rates of Atrazine or Simazine + Pendimethalin may be applied after planting, but before corn or weeds emerge. Apply by ground equipment in a minimum of 10 gallons of water or 20 gallons of liquid fertilizer. Apply by air in a minimum of 5.0 gallons of water. Apply this product according to rates in **Table 3**.

Mixing Instructions: See Comment No.1 following Table 2.

Observe all directions for use, precautions and limitations on the respective product labels when applying these products in tank mix combinations. Refer to the Pendimethalin label for replanting instructions in the event of crop loss.

### TANK MIXTURE WITH ATRAZINE OR SIMAZINE, OR ATRAZINE + SIMAZINE WITH PARAQUAT, GLYPHOSATE + 2.4-D OR GLYPHOSATE FOR MINIMUM-TILLAGE OR NO-TILLAGE SYSTEMS

In minimum-tillage or no-tillage systems where corn is planted directly into a cover crop, stale seedbed, established sod, or previous crop residues, the contact herbicides Paraquat, Glyphosate + 2,4-D or Glyphosate may be tank mixed with LIBERTY S-MOC D + Atrazine or Simazine or LIBERTY S-MOC D + Atrazine + Simazine. See Comment No. 4 under **Table 1**.

LIBERTY S-MOC D, LIBERTY S-MOC D + Atrazine or Simazine, or LIBERTY S-MOC D + Atrazine + Simazine portion of the tank mixture provides preemergence control of the weeds listed on this label in the tank mixture section for LIBERTY S-MOC D, LIBERTY S-MOC D + Atrazine or Simazine, or LIBERTY S-MOC D + Atrazine + Simazine - Preplant Surface, Preplant Incorporated, or Preemergence.

**Application:** Apply before, during, or after planting, but before the corn emerges, at rates specified in the Paraugat, Glyphosate + 2,4-D or Glyphosate label.

**Paraquat:** See the Paraquat label for weeds controlled, specified rates and other information concerning use. This treatment will not control weeds taller than 6 inches.

**Glyphosate + 2,4-D:** See the Glyphosate + 2,4-D label for weeds controlled, specified rates for specific weeds, and other information concerning use.

**Glyphosate:** See the Glyphosate label for weeds controlled, specified rates, and other use precaution directions.

Apply in 20 to 60 gallons of water or fluid fertilizer per acre with ground equipment.

Apply labeled rate of Atrazine\* or Simazine\* or Atrazine\*\* + Simazine\*\* with 1 pint of this product per acre on coarse soils, with 1.33 pints of this product per acre on medium soils or with 1.33 to 1.67 pints of this product per acre on fine soils\*\*\*.

- \*Use Simazine in preference to Atrazine when heavy infestations of crabgrass or fall panicum are expected.
- \*\* When using the tank mixture of this product and Atrazine + Simazine, use equal rates of Atrazine and Simazine (1:1 ratio) when heavy broadleaf weed infestations are expected. When heavy infestations of crabgrass or fall panicum are expected, use a 1:2 ratio of Atrazine + Simazine.
- \*\*\* For Cocklebur, Yellow nutsedge, and Velvetleaf control on fine-textured soils above 3% organic matter, apply 1.33 to 1.67 pints per acre of this product with labeled rate of Atrazine, or the same total amount of Atrazine + Simazine.

#### Restriction

• Do not apply combinations containing Paraquat in suspension-type liquid fertilizers because the activity of paraquat will be reduced.

### TANK MIXTURE WITH ATRAZINE; OR ATRAZINE + 2,4-D; OR ATRAZINE + 2,4-D + DICAMBA FOR MINIMUM-TILLAGE OR NO-TILLAGE SYSTEMS

In minimum-tillage or no-tillage systems where corn is planted directly into a cover crop, stale seedbed, established sod, or previous crop residues, LIBERTY S-MOC D applied in combination with Atrazine will kill most emerged small annual weeds. Apply LIBERTY S-MOC D + Atrazine before, during, or after planting, but before corn emerges, according to the rates in **Table 3**.

Where heavy crop residues exist, add labeled rate of 2,4-D amine to the spray tank last and apply in a minimum of 25 gallons of carrier per acre.

As carriers, nitrogen solutions and complete liquid fertilizers, applied before corn emergence, enhance burndown of existing weeds, and therefore, are specified instead of water. Add [Voyager 90/10 or other appropriate product name] surfactant at 1.0 to 2.0 quarts per 100 gallons of diluted spray, or another appropriate surfactant at its specified rate, or add crop oil concentrate plus 28% liquid nitrogen (or equivalent). Apply before weeds exceed 3 inches in height. If alfalfa is present, add Dicamba to the spray mixture at labeled rates and apply before alfalfa exceeds 6 inches in height.

For fields with existing sod grasses (e.g., bromegrass, orchardgrass, rye, or timothy), when existing weeds exceed 3 inches in height or when very dry conditions exist, add Paraquat at specified rate in place of or in addition to 2,4-D, as indicated above. Observe all directions for use, precautions and restrictions on the respective product labels when applying these products in tank mix combinations.

#### Restriction

• Do not apply Paraquat brands in suspension-type liquid fertilizer.

### TANK MIXTURE WITH ATRAZINE + DICAMBA IN CONSERVATION TILLAGE - FIELD AND SILAGE CORN

In conservation tillage systems where corn is planted directly into a cover crop or previous crop residue, LIBERTY S-MOC D plus Atrazine + Dicamba will kill most emerged small annual weeds. Apply LIBERTY S-MOC D + Atrazine + Dicamba before, during, or after planting, but before corn emergence on medium and fine soils with greater than 2.5% organic matter. For fields with existing vegetation exceeding 3 inches in height or when very dry conditions exist, add Paraquat at its standard rate. LIBERTY S-MOC D + Atrazine + Dicamba may be applied postemergence to corn less than 3 inches tall and before weedy grasses exceed the 2-leaf stage.

As carriers, nitrogen solutions and complete liquid fertilizers, applied before corn emergence, enhance burndown of existing weeds.

Refer to the Atrazine + Dicamba label and follow all directions, limitations, precautions and restrictions regarding application and use in corn.

#### Restriction

• Do not apply Paraquat in suspension-type liquid fertilizer or use on emerged corn.

#### TANK MIXTURE WITH ISOXAFLUTOLE - FIELD CORN ONLY

This product and Isoxaflutole have a complementary response and weed control profile which allows various tank mix rate combinations to be considered. The addition of Isoxaflutole will improve the control of certain problem weeds including Texas panicum, woolly cupgrass and wild proso millet. LIBERTY S-MOC D improves both the duration and spectrum of annual grass and small-seeded broadleaf weed control, in particular foxtails (yellow foxtail), witchgrass and yellow nutsedge.

The rates of this product and Isoxaflutole are inversely proportional. Higher rates of this product are used with lower rates of Isoxaflutole and vice versa. The appropriate rate is selected based on your specific conditions, the weeds being targeted and your level of acceptance for potential crop damage.

**Examples:** (1) Where Texas panicum, woolly cupgrass or wild proso millet is a primary target weed, use a tank mix combination with a higher Isoxaflutole rate for the given soil type. (2) If your acceptance of an adverse crop response risk is low and/or a more general weed spectrum is targeted (especially yellow foxtail, witchgrass or yellow nutsedge), use a tank mix combination with a higher rate of this product for the given soil type. (3) If target weed is listed as controlled on both product labels, a tank mix consisting of intermediate rates of both products may be used.

#### **Precautions**

- To minimize risk to crops, refer to the Isoxaflutole label for specific restrictions regarding soil textures, pH, percent organic matter and other important considerations.
- Where a target weed is listed as controlled on only one of these two products, do not apply less than
  the application rate for that weed as specified in the individual product label or unacceptable control
  may result. The most restrictive combination of instructions, limitations and other restrictions from all
  the products being applied must be followed.

For coarse-textured soils: Apply labeled rate of Isoxaflutole with 1.0 to 1.33 pints of this product per acre.

#### Restriction

• Do not use Isoxaflutole on coarse-textured soils with less than 1.5% organic matter.

**For medium-textured soils:** Where lower labeled rate of Isoxaflutole is used, rates as low as 1.33 pints per acre of this product may be applied. Where higher labeled rate of Isoxaflutole is used, rates as low as 1.0 pint per acre of this product may be applied. This product can be used in combination with Isoxaflutole at rates up to 1.67 pints per acre on medium-textured soils.

**For fine-textured soils:** Where lower labeled rate of Isoxaflutole is used, rates as low as 1.33 pints per acre of this product may be applied if the soil organic matter is less than 3%. If the soil organic matter is 3% or greater, 1.67 pints per acre of this product should be applied. Where mid-range labeled rates of Isoxaflutole are used, rates as low as 1.33 pints per acre of this product may be applied. Where higher labeled rate of Isoxaflutole is used, rates as low as 1.0 pint per acre of this product may be applied. This product can be used in combinations with Isoxaflutole at rates up to 2.0 pints per acre on fine-textured soils if the organic matter is 3% or greater.

#### TANK MIXTURES FOR POSTEMERGENCE SALVAGE WEED CONTROL IN FIELD CORN ONLY

For postemergence control of weeds in specific types of field corn, the LIBERTY S-MOC D combinations listed below may be used. Full season weed control from early preplant, preplant incorporated or preemergence treatments can lead to maximum yield potential under competition-free conditions. However, if control of emerged weeds is needed, a postemergence program listed below can be applied to provide residual control for the remainder of the season.

Follow all label directions, instructions, precautions, and limitations for each product used. For each tank mixture with this product, apply only to the specific field corn type specified on the tank mix product label.

#### **Precautions**

- In-row weed control may be reduced because of lack of coverage when applied to corn over 4 inches tall
- Do not use fluid fertilizer with these mixtures or corn injury may occur.

## LIBERTY S-MOC D + Glufosinate: Postemergence Use in Glufosinate-Tolerant Corn (e.g. LibertyLink®)

These tank mixtures can be applied postemergence to weeds and corn from seed designated as Glufosinate—tolerant (e.g. LibertyLink). Glufosinate provides postemergence control of a broad spectrum of grass and broad leaf weeds and the LIBERTY S-MOC D provides residual control of grasses and certain broad leaf weeds listed in the label section **LIBERTY S-MOC D Applied Alone - Weeds Controlled.** Refer to section **LIBERTY S-MOC D Alone - Preplant Incorporated or Preemergence** and use the minimum rate per soil texture and organic matter classification for season-long residual control from this

tank mix combination with Glufosinate. Refer to the Glufosinate label for the postemergence application rates according to weed species and their maximum height at the time of postemergence application. Where multiple weed species are present, use the highest specified rate to control the species and growth stages present.

Follow all applicable use directions, limitations, precautions, and information regarding application to corn on the LIBERTY S-MOC D and Glufosinate labels. Where difficult species and/or severe weed populations are expected, use the maximum rate where rate ranges are listed.

### LIBERTY S-MOC D + Glyphosate for Postemergence Application to Glyphosate-Tolerant Corn (e.g. Roundup Ready® or Agrisure® GT)

The tank mixture of LIBERTY S-MOC D + Glyphosate can be applied postemergence to weeds and to corn designated as glyphosate-tolerant. Application may be applied postemergence to glyphosate-tolerant corn from emergence until corn reaches 30 inches tall or the V8 stage (8 leaves with collars), whichever comes first. This mixture will provide postemergence control of weed species on the Glyphosate label and residual control of weed species on the LIBERTY S-MOC D label. Use the minimum LIBERTY S-MOC D rate postemergence with Glyphosate in glyphosate-tolerant corn as specified in the **Corn – LIBERTY S-MOC D Alone - Preplant Incorporated or Preemergence section** of this label according to soil texture and organic matter. Refer to the Glyphosate label and follow appropriate use directions, application procedures, precautions, and limitations. Refer to the Glyphosate label for directions for control of problem species. Where difficult species and/or severe weed populations are expected, use the maximum rate where rate ranges are listed.

### LIBERTY S-MOC D + Glyphosate + Atrazine for Postemergence Application to Glyphosate-Tolerant Corn (e.g. Roundup Ready or Agrisure GT)

The tank mixture of LIBERTY S-MOC D + Atrazine + Glyphosate can be applied postemergence to weeds and to corn designated as glyphosate-tolerant. Application may be applied postemergence to glyphosate-tolerant corn from emergence up to 12 inches in height. This mixture will provide postemergence control of weed species on the Glyphosate label and residual control of weed species on the LIBERTY S-MOC D + Atrazine label. Use the minimum LIBERTY S-MOC D + Atrazine rate postemergence with Glyphosate in glyphosate-tolerant corn as specified in the **Corn - LIBERTY S-MOC D Combinations - Tank Mixture with Atrazine or Simazine, or Atrazine + Simazine - Preplant Incorporated or Preemergence** section and **Table 3** of this label according to soil texture and organic matter.

Follow all applicable use directions, limitations, precautions, and information regarding application to corn on the LIBERTY S-MOC D, Atrazine and Glyphosate labels for application to glyphosate-tolerant corn. Where difficult species and/or severe weed populations are expected, use the maximum rate where rate ranges are listed.

#### **COTTON - LIBERTY S-MOC D ALONE**

**Application:** Apply LIBERTY S-MOC D postemergence to cotton and preemergence to weeds at 0.5 to 1.33 pints per acre, according to the state limitations in the following Postemergence section.

**AR, KS, LA, MS, TN, and Bootheel of MO:** Apply LIBERTY S-MOC D preemergence only at the rate of 0.5 to 1.0 pint per acre on sandy loams, 0.66 to 1.33 pints per acre on medium soils, or 1.0 to 1.33 pints per acre on fine soils.

**NM, OK, and TX:** Apply LIBERTY S-MOC D preplant incorporated or preemergence at 1.0 pint per acre on sandy loams, 1.0 to 1.33 pints per acre on medium soils, or 1.33 pints per acre on fine soils.

**Fall Application for Italian Ryegrass Control:** LIBERTY S-MOC D may be applied for residual control of glyphosate-resistant Italian ryegrass (*Lolium multiflorum*). Apply LIBERTY S-MOC D at 1.33 to 1.67 pints per acre in the fall (September 1 to December 1) after harvest of the previous crop and prior to Italian ryegrass emergence. Use the lower LIBERTY S-MOC D rate for coarse-textured soils and the higher rate for fine-textured soils. A tillage operation may precede the application. Do not incorporate to a depth greater than 2 to 3 inches if tillage follows the application of LIBERTY S-MOC D. For fall

applications after emergence of glyphosate-resistant Italian ryegrass, Paraquat can be tank mixed with LIBERTY S-MOC D to control emerged ryegrass. Refer to the Paraquat label for specific rates, application instructions, and restrictions. Other registered herbicides may be tank mixed with LIBERTY S-MOC D for control or improved control of other weeds present at the time of application.

#### Restrictions

- Do not apply this product to frozen ground.
- If a spring application is made, the combined total amount of this product applied in the fall plus spring must not exceed the maximum seasonal S-metolachlor rate for cotton (2.6 pints per acre, depending on soil texture).

**Preplant Incorporated (NM, OK, and TX Only):** Apply to the soil and incorporate into the top inch of soil immediately before planting, at planting, or after planting, but before crop or weeds emerge. Use a rolling cultivator or similar implement to uniformly incorporate not more than 1 inch deep. Use a preplant incorporated application if furrow irrigation is used or when a period of dry weather after application is expected. Where furrow irrigation is used, wet the top of the bed for best results. If the crop is to be planted on beds, apply and incorporate after bed formation. Cotton should be planted below the zone of incorporation; i.e., at least 1 inch on fine soils and 1.5 inches on coarse and medium soils. If incorporated prior to planting, use a planter that will result in a minimum of soil disturbance.

For best control of yellow nutsedge and suppression of seedling johnsongrass, apply this product preplant incorporated at the maximum rate for the soil texture, whether applied alone or mixed with Prometryn.

**Preemergence:** Apply to the soil surface at planting or after planting, but before weeds or crop emerge.

**Postemergence:** Apply LIBERTY S-MOC D broadcast over the top or directed to the soil surface according to the rate limitations listed below by state. Over-the-top postemergence application may be made not later than 100 days before harvest, and directed-postemergence application may be made not later than 80 days before harvest. Application before weeds emerge or after clean cultivation to remove existing weeds is necessary since LIBERTY S-MOC D will not control emerged weeds. LIBERTY S-MOC D postemergence may be applied over any previous registered herbicide treatment. In sprinkler-irrigated areas, sprinkler irrigate after application with 1/2 to 1 inch of water (1/2 inch on coarse-textured soils to 1 inch on fine-textured soils) to incorporate LIBERTY S-MOC D. In furrow-irrigated areas, apply LIBERTY S-MOC D, incorporate with a rolling cultivator or similar implement that provides uniform shallow incorporation (2 inches or less), and then irrigate. In non-irrigated areas, if at least 1/2 inch of rainfall does not occur within 10 days after application, cultivate with a rolling cultivator or similar implement that provides uniform shallow incorporation of LIBERTY S-MOC D.

VA, NC, SC, GA, FL, and AL: Apply this product postemergence at 1.0 to 1.33 pints per acre. TN, AR, KS, MS, MO, and LA: Apply this product postemergence at 0.5 to 1.33 pints per acre. TX, OK, NM, AZ, CA, and Clay Soils in AR: Apply this product postemergence at 1.0 to 1.33 pints per acre before August 1.

**Multiple Applications:** Where weed pressure is heavy, difficult-to-control species are expected, or reinfestation may occur, and a weed control program is used, multiple applications of LIBERTY S-MOC D are effective when used as part of the weed control program. Apply as a preplant incorporated or preemergence treatment and follow with an application postemergence to cotton before weeds emerge or after clean cultivation to remove existing weeds, since LIBERTY S-MOC D will not control emerged weeds. Apply LIBERTY S-MOC D postemergence over a previous preplant or preemergence LIBERTY S-MOC D application as shown in the following table.

**Table 4. Multiple LIBERTY S-MOC D Applications to Cotton** 

·	Preplant Incorporated or Preemergence (pints per acre)		
States	Postemergence (pints per acre)		
	0.5 to 1.33 (Preemergence Only)		
MS, LA, TN, AR, KS, MO	+		
	0.5 to 1.33		
	1.0 to 1.33		
TX, OK, NM	+		
	1.0 to 1.33 before August 1		
	1.0 to 1.33 (Preemergence Only)		
NC, VA	+		
	1.0 to 1.33		

In sprinkler-irrigated areas, sprinkler irrigate after application with 1/2 to 1 inch of water (1/2 inch on coarse-textured soils to 1 inch on fine-textured soils) to incorporate LIBERTY S-MOC D. In furrow-irrigated areas, apply LIBERTY S-MOC D, incorporate with a rolling cultivator or similar implement that provides uniform shallow incorporation (2 inches or less), and then irrigate. In nonirrigated areas, if at least 1/2 inch of rainfall does not occur within 10 days after application, cultivate with a rolling cultivator or similar implement that provides uniform shallow incorporation of LIBERTY S-MOC D.

For best control of yellow nutsedge and suppression of seedling johnsongrass, apply LIBERTY S-MOC D preplant incorporated, preemergence, or postemergence to cotton and preemergence to weeds at the maximum rate for the soil texture, whether applied alone or in combinations. These treatments may be applied over previous registered herbicide treatments.

#### **Precautions**

- To avoid concentration in the seed furrow, do not make broadcast applications of this product to cotton planted in furrows more than 2 inches deep. Band applications may be made to cotton planted in furrows deeper than 2 inches, but band width should not exceed the width of the bottom of the furrow.
- In furrow-planted cotton, to avoid concentration in the furrow and potential injury, do not apply this product postemergence until after first "knifing" or cultivation to level soil surface.
- Do not apply over the top in fluid fertilizer or any other adjuvant, surfactant, oil, or other pesticide not specified in the cotton section of this label, or injury may occur.

#### **Restrictions**

- Do not apply more than a total of 2.0 pints of this product per acre on coarse soils or 2.6 pints of this product per acre on medium and fine soils during a growing season.
- Do not apply this product on sand or loamy sand soils, or in areas where water is likely to "pond" over the bed.
- Do not graze or feed forage or fodder from cotton to livestock.
- Do not apply on Taloka silt loam.
- Do not use in Gaines County, TX.

#### **COTTON - LIBERTY S-MOC D COMBINATIONS**

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.

#### **Tank Mixture with Prometryn**

LIBERTY S-MOC D tank mixtures with Prometryn may be applied preplant incorporated or preemergence in water or fluid fertilizer. When fluid fertilizer is used as a carrier for LIBERTY S-MOC D, either alone or in combination with Prometryn, mix only the amount that will be sprayed in one operation. These mixtures

should not be allowed to stand without agitation. Only use water as a carrier for postemergence -directed application.

In addition to those weeds controlled by LIBERTY S-MOC D alone, LIBERTY S-MOC D + Prometryn, applied preplant incorporated or preemergence, also controls the following weeds: junglerice, wild oats, annual morningglory, groundcherry, hairy nightshade, lambsquarters, malva, mustard, prickly sida (teaweed), purslane, ragweed, and shallow-germinating seedlings of cocklebur and coffeeweed. As a postemergence-directed application, Prometryn provides postemergence control and residual control of weeds on its label, while LIBERTY S-MOC D provides residual control of weed species on its label. LIBERTY S-MOC D will not control emerged weeds.

**Preplant Incorporated or Preemergence:** Apply LIBERTY S-MOC D + labeled rate of Prometryn, either preplant incorporated or preemergence using the appropriate rate from **Table 5**. Plant cotton below the zone of incorporation; i.e., at least 1.0 inch on fine soils and 1.5 inches on coarse and medium soils. If incorporated before planting, use a planter that will result in a minimum of soil disturbance.

Table 5: LIBERTY S-MOC D + Prometryn - Cotton (NM, OK, TX)

	•	Broadcast Rates Per Acre	
Use Areas	Soil Texture	LIBERTY S-MOC D	Prometryn
ALL	Sand, loamy sand	DO NOT USE	
OK, and Blacklands and Gulf Coast of TX	Loams	0.8 to 1.33 pts.	See Prometryn
	Clays	1.33 pts.	label of product being
Rio Grande Valley of TX	Loams	0.8 to 1.33 pts.	used for application
	Clays	1.33 pts.	
NM; High Plains,	Sandy loam	0.8 to 1.0 pts.	rates
Rolling Plains, Edwards Plateau of TX; and Southwest TX	Loams	0.8 to 1.33 pts.	
	Sandy clay loams	1.33 pts.	
	Other clay soils	1.33 pts.	

**Postemergence Directed (AR, AZ, CA, LA, MS, NM, OK, TN, TX, and MO):** LIBERTY S-MOC D may be tank mixed with Prometryn in water and applied postemergence directed in cotton for control of emerged weeds listed on the Prometryn label and residual preemergence control of weeds controlled by LIBERTY S-MOC D and Prometryn, or application may be made after cultivation for residual preemergence control. These treatments may be applied over previous registered treatments, including LIBERTY S-MOC D, provided the maximum label rate of any product is not exceeded.

Apply LIBERTY S-MOC D + Prometryn in a minimum of 20 gallons of spray volume per acre. Follow the directions, limitations, and precautions on the Prometryn label when Prometryn is applied as a postemergence-directed application. Refer to the directions, limitations, and precautions for use of LIBERTY S-MOC D under the **Cotton - LIBERTY S-MOC D Alone - Postemergence** section.

#### **Precautions**

- To avoid concentration in the seed furrow, do not make broadcast applications of this product + Prometryn to cotton planted in furrows more than 2 inches deep. Band applications may be made to cotton planted in furrows deeper than 2 inches, but band width should not exceed the width of the bottom of the furrow.
- Do not apply over the top of cotton or injury may occur.

#### **Restrictions:**

- Do not apply on sand or loamy sand soils or in areas where water is likely to "pond" over the bed.
- Do not apply in cut areas of newly leveled fields, or in areas of excess salt.
- Do not graze or feed forage or fodder from cotton to livestock.
- Do not apply to glandless cotton varieties.

- Do not apply on Taloka silt loam.
- Do not use in Gaines County, TX

Refer to the Prometryn label for further instructions and limitations.

#### **Tank Mixture with Fluometuron**

Apply LIBERTY S-MOC D in tank mixture with Fluometuron preemergence for control of those weeds controlled by LIBERTY S-MOC D alone and those as listed on the Fluometuronlabel. This combination will also control spotted spurge, hyssop spurge, nodding spurge, and prostrate spurge. Apply to the soil surface at planting or after planting, but before weeds or crops emerge, using the appropriate rates from **Table 6**. Apply the tank mixture postemergence to cotton but preemergence to weeds, or apply postemergence to both cotton and broad leaf weeds for control of weeds on the Fluometuronlabel. Apply as a directed, semi-directed, or over-the-top spray. LIBERTY S-MOC D will not control emerged weeds but will provide preemergence control of species on its label. Where rate ranges are given for Fluometuron, use the higher rate when applying postemergence to weeds that are 2 inches or less. These treatments may be applied over previous registered treatments, including LIBERTY S-MOC D, provided the maximum label rate of any product is not exceeded.

**Mixing Instructions:** Incompatibility may occur when tank mixing LIBERTY S-MOC D and Fluometuron. To help overcome this condition, fill the spray tank 1/4 full with water or fluid fertilizer and start agitation, add the Fluometuronand allow it to become dispersed. Add [Voyager 90/10 or other appropriate product name] at 0.5% volume/volume final spray (4.0 pints per 100 gallons), then add the LIBERTY S-MOC D and finally the rest of the water or fluid fertilizer. Agitate during mixing and application to maintain a uniform suspension. Do not use fluid fertilizer as a carrier for postemergence applications.

Table 6: LIBERTY S-MOC D + Fluometuron- Cotton

	Broadcast Rates Per Acre			
	LIBERTY S-MOC D (pints)		El., amatu, an	
Soil Texture	Area 1*	Area 2**	Fluometruon	
Sand, loamy sand		DO NOT USE		
Sandy loam	0.5 to 1.0	0.8 to 1.0	See Fluometuron	
Loam, silt loam, silt	0.66 to 1.33	1.0 to 1.33	label of product	
Fine soil	1.0 to 1.33	1.33	being used for application rates	

#### **Precautions**

- Do not apply this product + Fluometuron on sand or loamy sand soils, or in areas where water is likely to "pond" over the bed, or crop injury may occur.
- To avoid concentration in the seed furrow, do not make broadcast applications of this product + Fluometuron to cotton planted in furrows more than 2 inches deep. Band applications may be made to cotton planted in furrows deeper than 2 inches, but band width should not exceed the width of the bottom of the furrow.
- The use of Fluometuron following the use of a systemic insecticide at planting may result in crop injury.

#### Restrictions

- Do not feed treated forage or gin trash to livestock, or graze treated areas.
- Do not apply on Taloka silt loam.
- Do not use in Gaines County, TX.

Refer to the Fluometuron labels for further instructions, precautions, and limitations.

### TANK MIXTURE OF LIBERTY S-MOC D OR LIBERTY S-MOC D + FLUOMETURON WITH PARAQUAT OR GLYPHOSATE FOR MINIMUM-TILLAGE OR NO-TILLAGE SYSTEMS

In minimum-tillage or no-tillage systems where cotton is planted directly into a cover crop, stale seedbed, or previous crop residues, the contact herbicides Paraquat or Glyphosate may be added to a tank mix of either LIBERTY S-MOC D or LIBERTY S-MOC D + Fluometuron. When used as directed, the Paraquat portion of the tank mixture controls most emerged weeds and suppresses many perennial weeds. Glyphosate combinations will control emerged annual and perennial weeds when applied as directed on the Glyphosate label. The LIBERTY S-MOC D and LIBERTY S-MOC D + Fluometuron portion of the tank mixture provides preemergence control of the weeds listed on this label in the **LIBERTY S-MOC D** and **LIBERTY S-MOC D** + **Fluometuron** sections, respectively.

Refer to the label of each product used in combination and observe the planting details, information regarding application, geographical restrictions, and all other precautions and limitations. Refer to **Mixing Instructions** under **Tank Mixture with Fluometuron** section.

**Application:** Apply before, during, or after planting, but before the cotton emerges. Apply LIBERTY S-MOC D at 0.8 to 1.0 pint per acre on sandy loams, medium-, and fine-textured soils. Refer to **Table 6** for Fluometuron rates.

**Paraquat:** Apply as directed on the product label. This treatment will not control weeds taller than 6 inches.

**Glyphosate:** See the Glyphosate label for weeds controlled, specified rates, and other use directions.

Apply in 20 to 60 gallons of water or fluid fertilizer per acre with ground equipment.

#### **Precautions**

- If heavy rain occurs soon after application, crop injury may result, especially in poorly drained areas where water stands for several days, or where the seeding slit has not been properly closed.
- Refer to the Fluometuron labels and the **Tank Mixture with Fluometuron** section of this label for further instructions, precautions, and limitations.

#### Restriction

- Do not apply combinations containing Paraquat in suspension-type liquid fertilizers, as the activity of paraquat will be reduced.
- Do not apply this product + Fluometuron + Glyphosate in tank mixture because of compatibility problems.
- Do not use in Gaines County, TX

#### TANK MIXTURE WITH MSMA, MSMA + FLUOMETURON, OR MSMA + FLUOMETURON

LIBERTY S-MOC D may be tank mixed with MSMA in water and applied postemergence directed for control of emerged weeds listed on the MSMA product label and residual preemergence control of weeds controlled by LIBERTY S-MOC D. The addition of Fluometuron or Prometryn will add control of weed species on their respective labels.

**Postemergence Directed (AL, AR, AZ, CA, FL, GA, LA, MS, NC, NM, OK, SC, TN, TX, VA, and Bootheel of MO):** Apply LIBERTY S-MOC D + MSMA postemergence directed to cotton at least 3 inches tall according to the directions, limitations, and precautions on the MSMA product label, as well as the directions, limitations, and precautions for use of LIBERTY S-MOC D in the section for **Cotton - LIBERTY S-MOC D Alone - Postemergence**. These treatments may be applied over previous registered treatments, including LIBERTY S-MOC D, provided the maximum label rate of any product is not exceeded. Fluometuron or Prometryn may be added to the LIBERTY S-MOC D + MSMA tank mixture according to the respective label directions for application to cotton at least 3 inches tall. When these mixtures are used, follow the mixing instructions for LIBERTY S-MOC D + Fluometuron or Prometryn and then add the MSMA product.

#### Restrictions

• Do not apply after first cotton bloom.

• Do not use this product in tank mix with premixes of MSMA plus herbicides other than those registered for use in tank mixture with this product on cotton.

### TANK MIXTURE WITH TRIFLURALIN FOR POST-DIRECTED FOLLOWED BY SOIL INCORPORATION APPLICATIONS

LIBERTY S-MOC D may be applied as a tank mixture with Trifluralin in cotton for improved late-season weed control when used as an incorporated lay-by type application. This combination may be applied after the cotton is at least 3 inches tall and has reached the 4 true-leaf stage. Make the application directed to the soil surface and away from the crop foliage. Incorporate using a sweep or rolling type cultivator to provide uniform and shallow mixing into the top 2 inches of soil. Refer to each product label for the appropriate application rates by soil type and for this application timing, and follow all product use limitations and restrictions.

#### TANK MIXTURE WITH GLYPHOSATE FOR USE ON ROUNDUP READY COTTON ONLY

Apply LIBERTY S-MOC D as a tank mixture with Glyphosate in water postemergence over-the-top or postemergence directed for control of emerged weeds listed on the Glyphosate label and for residual preemergence control of weeds listed on the LIBERTY S-MOC D label. See the **Cotton - LIBERTY S-MOC D Alone-Postemergence** section of this label for rates and timings of LIBERTY S-MOC D and follow the Glyphosate label for their respective rates, application methods, and application timing restrictions. Refer to the Glyphosate label and follow appropriate use directions, application procedures, precautions, and limitations.

#### **Precautions**

- Postemergence over-the-top applications of this tank mixture may cause temporary injury in the form of necrotic spotting to exposed cotton leaves, which will not affect normal plant development.
- Do not add additional spray adjuvants, surfactants, fertilizer additives, or pesticides to this tank mixture if applied postemergence over-the- top or unacceptable injury may occur.

#### **Restrictions:**

- Do not apply Glyphosate postemergence over-the-top to cotton past the growth stage limit specified on their respective labels.
- Do not apply this tank mixture postemergence to any cotton variety unless it is designated Roundup Ready and unless the Glyphosate formulation being used is registered for postemergence use in Roundup Ready Cotton.
- Do not use on sand or loamy sand soils in Gaines County, TX.

#### **SOYBEAN, IMMATURE SEED**

LIBERTY S-MOC D may be applied preplant or preemergence for the control or suppression of grass and small-seeded weeds in immature-seed soybean or other food-grade soybeans. For specific rates, see the rate table listed below.

**Preplant Surface-Applied:** For minimum-tillage or no-tillage systems only, LIBERTY S-MOC D alone may be applied up to 45 days before planting. Use only split applications for treatments made 30 to 45 days before planting, with 2/3 the specified broadcast rate for the crop and soil texture applied initially and the remaining 1/3 applied at planting. Treatments less than 30 days before planting may be made either as a split or a single application. If weeds are present at the time of treatment, apply in a tank mixture combination with a contact herbicide (e.g., Parauqat or Glyphosate). Observe directions for use, precautions, and restrictions on the label of the contact herbicide. To the extent possible, do not move treated soil out of the row or move untreated soil to the surface during planting, or weed control will be diminished.

**Preplant Incorporated:** Apply LIBERTY S-MOC D to the soil and incorporate into the top 2 inches of soil within 14 days before planting, using a finishing disk, harrow, rolling cultivator, or similar implement capable of providing uniform 2-inch incorporation. Use a preplant incorporated application if furrow irrigation is used or when a period of dry weather after application is expected. If crop will be planted on beds, apply and incorporate LIBERTY S-MOC D after bed formation, unless specified otherwise.

**Preemergence:** Apply LIBERTY S-MOC D during planting (behind the planter) or after planting, but before weeds emerge.

#### **LIBERTY S-MOC D Broadcast Rates Per Acre**

Soil Texture	Percent Organic Matter in Soil		
	< 3%	≥ 3%	
Coarse	1 to 1.33 pts.	1.33 pts.	
Medium	4.22 to 4.67 mts	1.33 to 1.67 pts.	
Fine	1.33 to 1.67 pts.	1.67 to 2.0 pts.	

#### **Precaution**

• This product will not control emerged weeds.

#### Restrictions

- Do not cut for hay within 120 days following an application of this product.
- Do not use for forage within 60 days following an application of this product.
- Do not apply more than 2.0 pints of this product per acre during anyone crop year.

#### GRASSES GROWN FOR SEED (ID, OR, WA) - LIBERTY S-MOC D APPLIED ALONE

To control weeds and volunteer grasses in established grasses grown for seed, apply LIBERTY S-MOC D to established stands of tall fescue, orchardgrass, perennial ryegrass, fine fescue, bentgrass, and Kentucky bluegrass just before, during, or immediately following the first fall rains or just before or during a late summer or early fall irrigation, but before target grasses emerge. The seed crop must have had one seed harvest or been established at least one year. The post-harvest residue (straw) should be evenly spread, removed, or burned before applying LIBERTY S-MOC D. Rainfall or irrigation is required after application and before weed emergence for best control. LIBERTY S-MOC D will provide preemergence control/suppression of volunteer seedlings of perennial ryegrass, fine fescue species, tall fescue, orchardgrass, bentgrass, and Kentucky bluegrass. LIBERTY S-MOC D will control those weed species listed in the **LIBERTY S-MOC D Alone** section of this label and will suppress or control rattail fescue, annual bluegrass, Italian ryegrass, California brome, downy brome, and roughstalk bluegrass.

Apply LIBERTY S-MOC D by ground equipment in a minimum of 10 gallons of water per acre using the rate listed below according to grass species.

Established Grass Crop Grown for Seed	Pints per Acre
Fine fescue species	1.0
Perennial ryegrass	1.0
Bentgrass	
Kentucky bluegrass	1.0 to 1.33
Orchardgrass	1.0 to 1.33
Tall fescue	

#### **Precautions**

- Do not apply after the November 15 or poor control may result.
- Tank mixtures with other pesticides, or the addition of an adjuvant, can increase the risk of crop injury.
- Application to perennial ryegrass and fine fescue stands under stress may cause crop injury.
- If weed escapes occur following an application of this product, an application of a postemergence herbicide may be necessary to control escapes. When making such an application, follow all directions, precautions, and limitations on the label of the postemergence herbicide.
- Control may be decreased if excessive straw from the previous harvest is present at application and/or insufficient rainfall/irrigation occurs.

#### Restrictions

- Apply this product only once per crop year.
- Do not graze forage regrowth for 60 days following application west of the Cascades.

- In areas east of the Cascades, do not graze forage regrowth for 150 days following application.
- Hay may be harvested anytime between seed harvest and the next application of S-metolachlor.

#### HORSERADISH

Apply a single application of LIBERTY S-MOC D at a broadcast rate of 1.0 to 1.33 pints per acre to the soil surface after planting, but before weed or crop emergence (i.e., preemergence). Use lower rates on soils relatively coarse-textured and higher rates on fine-textured soils. A band application may also be used, applying proportionally less spray mixture on the area actually treated. LIBERTY S-MOC D will not control emerged weeds. Control emerged weeds with an appropriate registered foliar herbicide or by mechanical means. Harvest horseradish at normal timing.

#### Restrictions

- Make only one application of this product per crop.
- Do not apply more than 1.33 pints of this product per acre per crop.

### **PEANUTS - LIBERTY S-MOC D ALONE**

Apply LIBERTY S-MOC D, either preplant incorporated, postplant incorporated, or preemergence, using the appropriate rate specified below.

**Preplant Incorporated or Preemergence:** Follow instructions for use of LIBERTY S-MOC D alone under **Application Procedures.** 

**Postplant Incorporated:** Apply and shallowly incorporate LIBERTY S-MOC D into the soil after planting, but before peanut germination. Incorporation depth and incorporating implements must be kept above the seed, or seed will be damaged.

Apply LIBERTY S-MOC D alone, preplant incorporated, postplant incorporated, or preemergence, at a broadcast rate of 1.0 to 1.33 pints per acre in the Southeast\* and 0.8 to 1.33 pints per acre. in NM, OK, and TX.

\*In the Southeast, use 1.33 to 2.0 pints per acre and apply preemergence for partial control of Florida beggarweed.

This product alone may be applied as directed after any of the following preplant incorporated herbicides when used according to their label: Benfluralin, Ethalfluralin, Imazethapyr, Pendimethalin or Trifluralin.

#### Restrictions

- Do not graze or feed peanut forage or fodder to livestock for 30 days following application.
- **Preharvest Interval (PHI):** Do not apply within 90 days of harvest.

#### **PEANUTS - LIBERTY S-MOC D COMBINATIONS**

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.

## **Tank Mixture with Benfluralin**

LIBERTY S-MOC D + Benfluralin tank mixture applied preplant incorporated controls those weeds listed under **LIBERTY S-MOC D Applied Alone** and those weeds as listed on the Benfluralin label.

Apply 1.0 to 1.33 pints per acre of LIBERTY S-MOC D + labeled rate of Benfluralin in a minimum of 10 gallons of spray volume per acre for ground application or in a minimum of 5.0 gallons of spray volume per acre for aerial application. Follow the procedures for Benfluralin on the Benfluralin label for soil preparation and incorporation of this tank mix. Apply and incorporate LIBERTY S-MOC D + Benfluralin up to 14 days prior to planting.

Follow all restrictions and precautions o the Benfluralin label.

## Tank Mixture or Sequentially with Imazethapyr

The tank mixture or sequential treatment of LIBERTY S-MOC D and Imazethapyr controls all weeds controlled by LIBERTY S-MOC D alone and by Imazethapyr alone. Refer to the **LIBERTY S-MOC D Applied Alone** section for weeds controlled by LIBERTY S-MOC D and to the Imazethapyr label for weeds controlled by Imazethapyr.

Refer to the respective labels for application methods, timing, rates, restrictions, and precautions; and use in accordance with the more restrictive label. Do not exceed the label rate of either product. LIBERTY S-MOC D will not control emerged weeds.

#### **Tank Mixture with Ethafluralin**

The tank mixture controls all weeds controlled by LIBERTY S-MOC D alone and by Ethafluralin alone. Refer to the **LIBERTY S-MOC D Applied Alone** section for weeds controlled by LIBERTY S-MOC D and to the Ethafluralin label for weeds controlled by Ethafluralin.

Apply LIBERTY S-MOC D + Ethafluralin preplant incorporated, using the appropriate rate from **Table 7**. Follow specified soil preparation procedures for Ethafluralin.

Table 7: LIBERTY S-MOC D + Ethafluralin - Peanuts

		Broadcast Rates Per Acre			
Soil Texture	South	east	NM, OK	K, TX	
	LIBERTY S-MOC D	Ethafluralin	LIBERTY S-MOC D	Ethafluralin	
Coarse		See Ethafluralin		See Ethafluralin	
Medium	1.0 to 1.33 pts.	label of product being used for	0.8 to 1.33 pts.	label of product being used for	
Fine		application rates		application rates	

Follow all use directions, limitations, use precautions and information regarding application to Peanuts on respective product labels.

#### Tank Mixture with Pendimethalin

LIBERTY S-MOC D + Pendimethalin applied preplant incorporated controls all weeds controlled by LIBERTY S-MOC D alone plus Texas panicum, field sand bur, johnsongrass from seed, lambsquarters, kochia, annual spurge, and other species on the Pendimethalin label. Apply LIBERTY S-MOC D + Pendimethalin by ground or by aerial equipment within 14 days before planting. Incorporate into the top 1 to 2 inches of soil before planting and within 7 days of application, using a finishing disk or similar implement capable of providing uniform incorporation. If peanuts will be planted on beds, apply and incorporate after bed formation. Refer to the **Incorporation** instructions of the respective labels for additional directions.

Apply LIBERTY S-MOC D + Pendimethalin preplant incorporated, using the appropriate rates from **Table 8**.

Table 8: LIBERTY S-MOC D + Pendimethalin - Peanuts

		Broadcast Rates Per Acre			
Soil Texture	NM, OK	, TX	Other Peanut Growing States		
	LIBERTY S-MOC D	Pendimethalin	LIBERTY S-MOC D	Pendimethalin	
Sand, Loamy sand	0.8 pt.	See	See		
Sandy loam	0.8 to 1.0 pt.	Pendimethalin label of product	1.0 to 1.33 pts.	Pendimethalin label of product	
Fine soil	1.33 pts.	being used for application rates	1.33 pts.	being used for application rates	

Follow all use directions, limitations, use precautions and information regarding application to Peanuts on respective product labels.

## **Tank Mixture with Paraquat**

LIBERTY S-MOC D + Paraquat applied at ground cracking will control or suppress small (1 to 6 inch) emerged annual grass and broadleaf weeds and provide residual control of weed species listed in the **LIBERTY S-MOC D Applied Alone** section of this label. Apply Paraquat plus the appropriate LIBERTY S-MOC D rate from the **Peanuts - LIBERTY S-MOC D Alone** section in a minimum spray volume of 20 gallons per acre with ground equipment. Refer to the Paraquat label and follow all directions, limitations, and restrictions.

## Tank Mixture or Sequentially with Paraquat + Bentazon

The addition of Bentazon to the LIBERTY S-MOC D + Paraquat mixture will result in improved control of such problem broadleaf weeds as prickly sida, cocklebur, smartweed, and bristly starbur. LIBERTY S-MOC D + Paraquat + Bentazon applied at ground cracking will control or suppress small (1 to 6 inch) emerged annual grass and broadleaf weeds and provide residual control of weed species listed in the **LIBERTY S-MOC D Applied Alone** section of this label. Apply Bentazon + Paraquat with the appropriate LIBERTY S-MOC D rate from the **Peanuts – LIBERTY S-MOC D Alone** section in a minimum spray volume of 20 gallons per acre with ground equipment. Refer to the Paraquat and Bentazon labels and follow all directions, limitations, and restrictions.

## Tank Mixture with Paraquat + 2,4-DB

The addition of 2,4-DB to the LIBERTY S-MOC D + Paraquat mixture will result in improved control of such problem broadleaf weeds as sicklepod, morningglory, and cocklebur. LIBERTY S-MOC D + Paraquat + 2,4-DB applied at ground cracking will control or suppress small (1-6 inch) emerged annual grass and broadleaf weeds and provide residual control of weed species listed in the **LIBERTY S-MOC D Applied Alone** section of this label. Apply Paraquat + 2,4-DB with the appropriate LIBERTY S-MOC D rate from the **Peanuts – LIBERTY S-MOC D Alone** section in a minimum spray volume of 20 gallons per acre with ground equipment. Refer to the Paraquat and 2,4-DB labels and follow all directions, limitations and restrictions.

#### **Tank Mixture with Bentazon**

LIBERTY S-MOC D + Bentazon applied at ground cracking will control species on the Bentazon label and provide residual control of species listed in the **LIBERTY S-MOC D Applied Alone** section of this label. Apply the labeled rate of Bentazon in 20 gallons per acre, depending on weed species and stage of growth as specified on the Bentazon label, with the appropriate LIBERTY S-MOC D rate from the **Peanuts – LIBERTY S-MOC D Alone** section. A second Bentazon application may be made in al peanut-growing areas, if needed. Refer to the respective labels and follow all directions, limitations, and restrictions for each product.

#### Tank Mixture with Bentazon + 2,4-DB

LIBERTY S-MOC D + Bentazon + 2,4-DB applied at ground cracking will control species on the Bentazon and 2,4-DB labels, especially morning glories. Apply labeled rates of Bentazon + 2,4-DB in 20 gallons per acre depending on weed species and stage of growth as specified on the Bentazon label, with the appropriate LIBERTY S-MOC D rate from the **Peanuts - LIBERTY S-MOC D Alone** section. A second Bentazon + 2,4-DB application may be made in all peanut-growing areas, if needed. Refer to the respective labels and follow all directions, limitations, and restrictions for each product.

## **Sequentially with Bentazon + Acifluorfen**

Apply LIBERTY S-MOC D according to the directions for **LIBERTY S-MOC D Alone** and follow with a postemergence treatment of Bentazon + Acifluorfen as specified on its label for the control of weeds listed on the LIBERTY S-MOC D label and on the Bentazon + Acifluorfen label. Refer to the **LIBERTY S-MOC D - Peanuts - Alone** section and to the Bentazon + Acifluorfen label and follow all directions, limitations, and restrictions for each product.

## **MULTIPLE APPLICATIONS**

Where weed pressure is heavy or where species difficult to control are expected, LIBERTY S-MOC D is most effective when used as follows:

## 1. Southeast Only (AL, FL, GA, NC, SC, VA)

**Preplant Incorporated:** Apply LIBERTY S-MOC D preplant incorporated as directed under **Peanuts - LIBERTY S-MOC D Alone** or apply LIBERTY S-MOC D + Benfluralin preplant incorporated as directed previously in this section. Refer to the respective section for weeds controlled.

**Preemergence to before "ground cracking":** Apply LIBERTY S-MOC D any time from preemergence to before "ground cracking" at 1 to 2 pints per acre for extended control of weeds not yet emerged. **Do not use LIBERTY S-MOC D after peanut emergence.** If peanuts have emerged, use [Dual Magnum or equivalent product name] according to its label: **Peanuts – Combinations – Multiple Applications.** 

Follow the PPI or PRE application by:

**Lay-by: Do not use LIBERTY S-MOC D.** Apply [Dual Magnum or equivalent product name] at lay-by as directed under the **Peanuts - Alone** section of the [Dual Magnum or equivalent product name] label.

## 2. Southwest Only (NM, OK, TX)

**1st Application:** Apply LIBERTY S-MOC D preplant incorporated or preemergence or before "ground cracking" as directed under **Peanuts – LIBERTY S-MOC D Alone** or apply LIBERTY S-MOC D + Bentazon preplanted incorporated as directed previously in this section. **Do not use LIBERTY S-MOC D after peanut emergence**. If peanuts have emerged, use [Dual Magnum or equivalent product name] according to its label.

**2nd Application: Do not use LIBERTY S-MOC D**. Apply [Dual Magnum or equivalent product name] at lay-by as directed under **Peanuts –Alone** section of the [Dual Magnum or equivalent product name] label. Use only when late germinating weeds are expected to be a problem. Refer to the product **Applied Alone** section for a list of weeds controlled.

## **Restrictions for Multiple Applications**

- Do not apply more than the equivalent of 2.67 lbs. S-metolarchlor per acre during any one year. If [Dual Magnum or equivalent product name] is used as a sequential treatment, the pounds of active ingredient for all S-metolachlor applications must not exceed 2.67 lbs a.i. per acre.
- Do not use this product or [Dual Magnum or equivalent product name] after peanuts have emerged.
- Do not graze or feed peanut forage or fodder to livestock for 30 days following application.
- Preharvest Interval (PHI): Do not apply within 90 days of harvest.

#### BEANS, PEAS, AND LENTILS - LIBERTY S-MOC D ALONE

Beans, peas, and lentils, including garbanzo, great northern beans, kidney beans, lima beans, mung beans, navy beans, peas (English\*; southern peas, such as blackeye, pinkeye, crowder, etc.), pinto beans, snap beans (green, wax, string), lentils, and lupines (sweet, white, white sweet, and grain).

### **Fall Application:**

- 1. Apply after September 30 in ND, SD, MN, WI, and north of Route 30 in IA.
- 2. Apply after October 15 north of Route 91 in NE and south of Route 30 in IA.
- 3. Apply after October 31 north of Route 136 in IL.

In all locations, apply to crop stubble after harvest when the sustained soil temperature at a 4-inch depth is less than 55°F and falling. In minimum-till or no-tillage systems on soils having greater than 2.5% organic matter, use 1.67 to 2.0 pints per acre on medium-textured and 2.0 pints per acre on fine-textured soils. A tillage operation may precede the application. A fall and/or a spring tillage may follow application, but do not exceed an incorporation depth greater than 2 to 3 inches. Minimize furrow and ridge formation in the tillage operations.

### Restrictions

- If a spring application is made, the total rate of the fall plus spring applications must not exceed the maximum total rate for beans, peas, and lentils.
- · Do not apply to frozen ground.

## **Spring Application:**

Apply LIBERTY S-MOC D, either preplant incorporated or preemergence, using the appropriate rate specified below. **Preplant Incorporated or Preemergence:** Follow instructions for use of LIBERTY S-MOC D alone under **Application Procedures**. On coarse soils with less than 3% organic matter, apply 1.0 to 1.33 pints of this product per acre or 1.33 pints per acre if organic matter is 3% or greater. On medium soils, apply 1.33 to 1.67 pints of this product per acre. On fine soils, apply 1.33 to 1.67 pints of this product per acre if organic matter content is less than 3%, or 1.67 to 2.0 pints per acre if organic matter content is 3% or greater.

\*On English peas, use only preemergence applications. If soils are cold and wet during pea germination and emergence, the use of this product may delay maturity and/or reduce yields.

#### Restrictions

- Do not cut for hay within 120 days following an application of this product.
- Do not use for forage within 60 days following an application of this product.
- Do not apply more than 2.0 pints of this product per acre during any one crop year.

## BEANS, PEAS, AND LENTILS - LIBERTY S-MOC D COMBINATIONS

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.

#### Restriction

• When applying this product in combination on beans, peas, and lentils, do not cut for hay within 120 days following application.

## Tank Mixture and Sequential Applications with EPTC-Beans (Green or Dry)

This mixture controls all weeds controlled by LIBERTY S-MOC D alone and by EPTC alone. Refer to the **LIBERTY S-MOC D Applied Alone** section of this label for weeds controlled by LIBERTY S-MOC D alone and to the EPTC label for weeds controlled by EPTC.

**Preplant Incorporated:** Follow instructions for use of LIBERTY S-MOC D alone under **Application Procedures**.

**Sequential:** Apply EPTC alone preplant incorporated, as specified on that label. Follow with a preemergence application of LIBERTY S-MOC D, at rates specified for LIBERTY S-MOC D alone, during planting (behind the planter) or after planting, but before the weeds or crop emerge.

Refer to the **Product Information** section of this label and to the EPTC label for weather, cultural practices, and all other precautions and limitations that affect performance of these products.

Apply labeled rate of EPTC\* with LIBERTY S-MOC D as specified below:

On coarse soils, apply 0.8 pint of this product per acre if organic matter content is less than 3%, or 1.0 pint per acre if organic matter content is 3% or greater. On medium soils, apply 1.0 pint of this product per acre if organic matter content is less than 3%, or 1.33 pints per acre if organic matter content is 3% or greater. On fine soils, apply 1.33 pints of this product per acre if organic matter is less than 3%, or 1.33 to 1.67 pints per acre if organic matter is 3% or greater.

\*Refer to the EPTC label for rate limitations depending on geographical area, and for species and varietal restrictions.

### Restriction

 Do not exceed 3 lbs. a.i. per acre of EPTC on small white beans or green beans grown on coarsetextured soils.

## Tank Mixture with Trifluralin - Beans (Dry - Kidney, Navy, Pinto, Etc.; Lima; And Snap)

LIBERTY S-MOC D + Trifluralin tank mix applied preplant incorporated controls those weeds listed under **LIBERTY S-MOC D Applied Alone** and those weeds listed for Trifluralin alone on the Trifluralin label. LIBERTY S-MOC D + Trifluralin may be applied by ground or by aerial equipment and incorporated up to 14 days prior to planting. Follow the procedures on this label and on the respective Trifluralin label using equipment that provides uniform 2-inch incorporation.

Apply LIBERTY S-MOC D + Trifluralin tank mix using the appropriate LIBERTY S-MOC D rate specified for LIBERTY S-MOC D alone, and the Treflan rate from the Dry Beans, and the Lima and Snap Beans sections of the respective Trifluralin label. Choose the product rate for the specific soil texture/organic matter classification and weed species expected.

Follow all restrictions and precautions on the respective Trifluralin label and in the **Beans, Peas, and Lentils - LIBERTY S-MOC D Alone** section of this label.

## **POTATOES - LIBERTY S-MOC D ALONE**

Apply LIBERTY S-MOC D, either incorporated, preemergence, or postemergence to potatoes after hilling/lay-by, according to directions specified below for control of weeds listed under the **Product Information** section. Within a rate range, use the lower rate on soils relatively coarse-textured or low in organic matter; use the higher rate on soils relatively fine-textured or high in organic matter. Effectiveness will be reduced if later cultural practices expose untreated soil. For application by center pivot irrigation, see the **Center Pivot Irrigation Application** section of this label.

**Incorporated:** Apply LIBERTY S-MOC D at 1.0 to 2.0 pints per acre to the soil and incorporate into the top 3 inches before planting, using a finishing disk, harrow, rolling cultivator, or similar implement. Planting and later cultural practices should not bring untreated soil to the surface. Postplant incorporated application may be made any time after planting to drag-off, but before potato emergence. Use an implement that evenly distributes LIBERTY S-MOC D in the top 2 inches of soil. Do not damage potato seed pieces or sprouts with incorporation equipment.

**Preemergence:** Apply LIBERTY S-MOC D at 1.0 to 2.0 pints per acre, either after planting as a preemergence, delayed preemergence, after drag-off or hilling treatment, but before weeds emerge. Up to 2.5 pints per acre of LIBERTY S-MOC D alone may be used where soil organic matter is between 6% and 20%.

**Postemergence After Hilling/Lay-by:** Apply 1.67 pints per acre of LIBERTY S-MOC D postemergence to potatoes through after hilling/at lay-by to control LIBERTY S-MOC D - sensitive species for remainder of the growing season. This application will not control emerged weeds. It may be applied over a previous LIBERTY S-MOC D application, but do not apply more than 3.6 pints per acre of LIBERTY S-MOC D in a single crop season.

## **Precaution**

- If cool, wet soil conditions occur after application, this product may delay maturity and/or reduce yield of Superior and other early maturing potato varieties.
- These directions for use do not apply to sweet potatoes or yams;

## **Restrictions**

- Do not use on muck or peat soils.
- Do not apply both as a preemergence and an incorporated treatment.
- **Preharvest Interval (PHI):** Do not harvest potatoes within 60 days after the at-planting to drag-off application.

### **POTATOES - LIBERTY S-MOC D COMBINATIONS**

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.

#### **Tank Mixture with Metribuzin**

In addition to those weeds controlled by LIBERTY S-MOC D alone, LIBERTY S-MOC D applied in tank mix combination with, or sequentially with, any of the registered Metribuzin formulations also controls the following broad leaf weeds: cocklebur\*, hairy nightshade\*, hemp sesbania, jimsonweed\*, lambsquarters, prickly sida, ragweed, smartweed, velvetleaf, Venice mallow, and wild mustard. \*Partially controlled.

LIBERTY S-MOC D at 1.0 to 2.0 pints per acre plus the labeled Metribuzin use rate may be used preemergence or postemergence to potatoes through after last hilling. Apply 1.0 to 1.33 pints per acre of LIBERTY S-MOC D on coarse soils and 1.33 to 2.0 pints per acre on other soil textures. Within this rate range, use the lower rate on soils relatively coarse-textured or low in organic matter; use the higher rate on soils relatively fine-textured or high in organic matter. Effectiveness will be reduced if later cultural practices expose untreated soil. LIBERTY S-MOC D will not control emerged weeds.

Refer to the Metribuzin label for precautionary statements, restrictions, application information, center pivot irrigation application, weeds controlled, and varietal limitations.

### **Precautions**

- Postemergence applications to potatoes, except center pivot, must be made only as a directed or semi-directed spray to avoid chlorosis, minor necrosis, or leaf distortion.
- These directions for use do not apply to sweet potatoes or yams.

## Restrictions

- Do not use this tank mixture on muck or peat soils.
- **Preharvest Interval (PHI):** Do not harvest potatoes treated with this product in a tank mix with Metribuzin within 60 days after application.
- **Preharvest Interval (PHI):** Do not harvest potatoes within 40 days after a lay-by application of this product.

## **LIBERTY S-MOC D + Linuron Tank Mixture (East of Rocky Mountains)**

LIBERTY S-MOC D may be applied in a tank mix combination with any of the registered Linuron formulations as a preemergence broadcast application to potatoes. Apply to the soil surface after planting and before emergence of the crop or after final drag-off according to the rates specified in **Table 9**.

Refer to the **Product Information** section of this label and to the Linuron label for precautionary statements, restrictions, application information, and weeds controlled.

Table 9: LIBERTY S-MOC D + Linuron – Potatoes (East of Rocky Mountains)

	Broadcast Rates Per Acre				
	1% to Less Than 3% Organic Matter		3 to 5% Orga	nic Matter	
Soil Texture	LIBERTY S-MOC D	Linuron	LIBERTY S-MOC D	Linuron	
COARSE Sandy loam	1.0 pt.	See Linuron label of product being	1.33 pts.	See Linuron label of product being	
MEDIUM Loam, Silt loam, Silt	1.33 pts.	used for application rates	1.67 to 2 pts.	used for application rates	

## Restrictions

- Do not use on sands or loamy sands
- Do not incorporate or spray over the top of emerged potatoes.

### **Tank Mixture with Pendimethalin**

In addition to the weeds controlled by LIBERTY S-MOC D alone, this tank mixture with Pendimethalin controls such problem species as kochia, lambsquarters, purslane, annual spurge, stinging nettle, and others specified on the Pendimethalin label. Apply LIBERTY S-MOC D + Pendimethalin preemergence, preemergence incorporated, or early postemergence, according to the specific directions on the Pendimethalin label, using the rates in **Table 10**.

Refer to the label for this product and Pendimethalin and observe all directions, timings, limitations, precautions, and restrictions concerning the use of these products on potatoes and follow the most restrictive

Table 10: LIBERTY S-MOC D + Pendimethalin - Potatoes

		Broadcast Rates Per Acre				
	Less Than 3% O	rganic Matter	More Than 3% C	Organic Matter		
Soil Texture	LIBERTY S-MOC D	Pendimethalin	LIBERTY S-MOC D	Pendimethalin		
COARSE	1.0 to 1.33 pts.	See Pendimethalin label of product being used for application rates	1.0 to 1.33 pts	See		
MEDIUM	1.33 pts		1.33 to 1.67 pts	Pendimethalin label of product being used for application rates		
FINE	1.33 to 1.67 pts		1.67 to 2.0 pts			

#### Tank Mixture with Pendimethalin + EPTC

In addition to the weeds controlled by LIBERTY S-MOC D alone, this tank mixture will control those species on the Pendimethalin and EPTC labels. Refer to the LIBERTY S-MOC D + Pendmethalin labels for rates of those products and add labeled rate of EPTC per acre depending on geographical area. Refer to the respective labels and observe all directions, limitations, precautions, and restrictions concerning the use of these products on potatoes and follow the most restrictive.

# **PUMPKIN - LIBERTY S-MOC D ALONE Preemergence**

Apply LIBERTY S-MOC D preemergence (before the weeds have emerged) at 1.0 to 1.33 pints per acre as an inter-row or inter-hill application in pumpkin. Leave 1 foot of untreated area over the row, or 6 inches to each side of the planted hill and/or any emerged pumpkin foliage (inter-row or inter-hill means not directly over the planted seed or young pumpkin plants). Use the lower LIBERTY S-MOC D rate on soils light in texture (loamy sand or lighter) and low in soil organic matter (less than 3%). LIBERTY S-MOC D applied as a broadcast spray over the planted row or hill, or applications made directly to crop foliage, will increase the risk of injury (e.g., stand loss, delayed maturity, and loss of yield) to the pumpkin crop.

LIBERTY S-MOC D will not control emerged weeds, and thus should be applied before the weeds emerge. Weeds that are present should be controlled by another means, e.g., by mechanical means or by another herbicide.

#### Restriction

• **Preharvest Intervani (PHI):** Do not apply within 30 days before pumpkin harvest.

## **RHUBARB - LIBERTY S-MOC D ALONE**

Apply LIBERTY S-MOC D at a broadcast rate of 0.67 to 1.33 pints per acre to the soil surface in early spring, prior to crop emergence. Use lower rates on soils relatively coarse-textured and higher rates on fine-textured soils. A band application may also be used, applying proportionally less spray mixture on the area actually treated. LIBERTY S-MOC D will not control emerged weeds. Control emerged weeds with an appropriate registered foliar herbicide or by mechanical or physical means.

### **Restrictions:**

- Make only one application of this product per crop.
- Do not apply more than 1.33 pints of this product per acre per crop.
- Preharvest Internal (PHI): Do not harvest rhubarb within 62 days of an application of this product.

#### **SAFFLOWERS - LIBERTY S-MOC D**

**Preplant Incorporated or Preemergence:** Follow instructions for use of LIBERTY S-MOC D alone under **Application Procedures.** 

On coarse soils, apply 1.0 to 1.33 pints of this product per acre if organic matter content is less than 3%, or 1.33 pints per acre if organic matter is 3% or greater. On medium soils, apply 1.33 to 1.67 pints of this product per acre. On fine soils, apply 1.33 to 1.67 pints of this product per acre if organic matter content is less than 3%, or 1.67 to 2.0 pints per acre if organic matter content is 3% or greater.

# SORGHUM (GRAIN OR FORAGE) SEED TREATED WITH A SEED SAFENER (e.g. CONCEP®) THAT PROVIDES TOLERANCE TO S-METOLACHLOR – LIBERTY S-MOC D ALONE

Apply LIBERTY S-MOC D, either preplant surface, preplant incorporated, preemergence, or postemergence using the appropriate rate specified below. Apply LIBERTY S-MOC D alone only when the sorghum seed has been properly treated with a seed safener that provides tolerance to S-metolachlor. Preplant or preemergence applications of LIBERTY S-MOC D not treated with a seed safener that provides tolerance to S-metolachlor will result in crop death.

**Fall Application for Italian Ryegrass Control:** LIBERTY S-MOC D may be applied for residual control of glyphosate-resistant Italian ryegrass (*Lolium multiflorum*). Apply LIBERTY S-MOC D at 1.33 to 1.67 pints per acre in the fall (September 1 to December 1) after harvest of the previous crop and prior to Italian ryegrass emergence. Use the lower LIBERTY S-MOC D rate for coarse-textured soils and the higher rate for fine-textured soils. A tillage operation may precede the application. Do not incorporate to a depth greater than 2 to 3 inches if tillage follows the application of this product. For fall applications after emergence of glyphosate-resistant Italian ryegrass, Paraquat can be tank mixed with this product to control emerged ryegrass. Refer to the Paraquat label for specific rates, application instructions, and restrictions. Other registered herbicides may be tank mixed with LIBERTY S-MOC D for control or improved control of other weeds present at the time of application.

#### Restrictions

- Do not apply this product to frozen ground.
- If a spring application is made, do not apply this product or any other product containing S-metolachlor the following spring to grain or forage sorghum.

**Preplant Surface-Applied:** Refer to instructions for use of LIBERTY S-MOC D under **Application Procedures** section on this label. For minimum-tillage or no-tillage systems only, apply LIBERTY S-MOC D up to 45 days before planting in CO, IA, IL, KS, MO, NE, and SD. Use only split applications for treatments made 30 to 45 days prior to planting, with 2/3 of the broadcast rate applied initially and the remaining 1/3 at planting. Apply 1.5 pints per acre of LIBERTY S-MOC D on medium soils or 1.67 pints per acre on fine soils. Treatments less than 30 days prior to planting may be made either as a split or single application. Apply 1.33 pints of this product per acre on coarse soils not more than 2 weeks prior to planting. Under dry conditions, irrigation after application is needed to move LIBERTY S-MOC D into the soil.

**Preplant Incorporated or Preemergence:** Refer to instructions for use of LIBERTY S-MOC D under **Application Procedures** section on this label. Broadcast 1.0 to 1.33 pints of this product per acre on coarse soils, 1.33 to 1.5 pints per acre on medium soils, or 1.33 to 1.67 pints per acre on fine soils.

**Postemergence:** Refer to instructions for use of LIBERTY S-MOC D under **Application Procedures** section on this label. LIBERTY S-MOC D may be applied broadcast postemergence at 1.0 to 1.33 pints per acre on coarse soils, 1.33 to 1.5 pints per acre on medium soils, or 1.33 to 1.67 pints per acre on fine soils. LIBERTY S-MOC D will not control emerged weeds. Therefore, emerged weeds must be controlled

by cultural or chemical means. When applied alone, LIBERTY S-MOC D will be safe to emerged sorghum. The risk of sorghum injury increases when adjuvants (e.g., non-ionic, crop oil), nitrogen sources (e.g., AMS, UAN), or fertilizers are applied with LIBERTY S-MOC D.

#### **Precautions**

- If sorghum seed is not properly treated with a seed safener that provides tolerance to S-metolarchlor, preplant and preemergence applications of this product will severely injure the crop.
- Under high soil moisture conditions prior to sorghum emergence, injury may occur following preplant and preemergence application of this product. The crop will normally outgrow this effect.
- Application of this product on sorghum grown under dry mulch tillage, may result in crop injury.

#### Restrictions

- Except for the split preplant surface treatment, do not make more than one application per year.
- Preharvest Interval (PHI): Do not apply this product postemergence within 75 days of harvest.

# SORGHUM (GRAIN OR FORAGE) SEED TREATED WITH A SEED SAFENER (e.g. CONCEP) THAT PROVIDES TOLERANCE TO S-METOLACHLOR - LIBERTY S-MOC D 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.

LIBERTY S-MOC D preplant or preemergence (prior to sorghum emergence) tank mixtures with Atrazine may be applied in water or fluid fertilizer. Apply LIBERTY S-MOC D preplant or preemergence in tank mixtures only when the sorghum seed has been properly treated with a seed safener that provides tolerance to S-metolachlor. Preplant or preemergence applications of LIBERTY S-MOC D to sorghum not treated with a seed safener that provides tolerance to S-metolachlor will result in crop death.

**Important:** For tank mixtures with atrazine – If applying this product in tank mixture with Atrazine, all the restrictions and rate limitations on the Atrazine label must be followed if more restrictive/protective than those on this label. In addition, if Atrazine is/must be applied at lower rates, broadleaf weed control may be affected. Refer to the Atrazine label for weeds controlled at the reduced rates.

## **Precautions**

- Applications of this product + Atrazine on highly alkaline soils or on eroded areas where calcareous subsoils are exposed may cause sorghum injury.
- If sorghum seed is not properly treated with a seed safener that provides tolerance to S-metolachlor, this product + Atrazine may severely injure the crop.
- Under high soil moisture conditions prior to sorghum emergence, injury may occur following preplant and preemergence application of this product + Atrazine. The crop will normally outgrow this effect.
- Use of this product + Atrazine on sorghum grown under dry mulch tillage, may cause crop injury.

#### Restriction

• Except for the split preplant surface treatment, do not make more than one application per year.

#### **Tank Mixture with Atrazine**

In addition to the weeds controlled by LIBERTY S-MOC D alone, LIBERTY S-MOC D + Atrazine also controls the following broadleaf weeds when applied either preplant surface, preplant incorporated, or preemergence: cocklebur, common purslane, hairy nightshade, lambsquarters, morningglory, ragweed, smartweed, and velvetleaf.

**Preplant Surface-Applied:** Refer to the instructions for use of this product under the section **Application Procedures**. For minimum-tillage or no-tillage systems only, this product + Atrazine may be applied up to 45 days prior to planting in IA, IL, Eastern KS, MO, NE and SD. Use only split applications for treatments made 30 to 45 days prior to planting, with 2/3 of the broadcast rate applied initially and the

remaining 1/3 applied at planting. Apply labeled rate of Atrazine with 1.5 pints of this product per acre on medium soils with 1.5% organic matter or greater or with 1.5 pints per acre of this product on fine soils with less than 1.5% organic matter or 1.67 pints per acre on fine soils with 1.5% organic matter or greater. Treatments less than 30 days prior to planting may be made either as a split or single application. Under dry conditions, irrigate after application is needed to move this product + Atrazine into the soil.

#### **Precautions**

• Use of this product on coarse or medium soils with less than 1.5% organic matter may cause crop injury.

**Preplant Incorporated or Preemergence:** Refer to instructions for use of LIBERTY S-MOC D under **Application Procedures** on this label. Apply labeled rate of Atrazine with 1.0 pint of this product per acre on medium soils with 1.5% organic matter or greater, with 1 pint of this product per acre on fine soils with less than 1.5% organic matter or with 1.2 to 1.33 pints of this product per acre of this product on fine soils with 1.5% organic matter or greater.

#### **Precautions**

To avoid crop injury:

- Do not use on coarse soils.
- Do not use on medium soils with less than 1.5% organic matter.
- Do not use in NM, OK, or TX, except in northeast OK and the TX Gulf Coast and Blacklands areas.
- Do not apply preplant incorporated in AZ or the Imperial Valley of CA.

# Tank Mixture of LIBERTY S-MOC D or LIBERTY S-MOC D + Atrazine with Paraquat, Glyphosate + 2,4-D or Glyphosate for Minimum-Tillage or No-Tillage Systems

In minimum-tillage or no-tillage systems where sorghum (seed treated with a seed safener that provides tolerance to S-metolachlor) is planted directly into a cover crop, stale seedbed, established sod, or previous crop residues, the contact herbicides Paraquat, Glyphosate + 2,4-D or Glyphosate may be tank mixed with LIBERTY S-MOC D or LIBERTY S-MOC D + Atrazine. See Comment No. 4 following **Table**2. The LIBERTY S-MOC D or LIBERTY S-MOC D + Atrazine portion of the tank mixture provides preemergence control of the weeds listed on this label under the respective sections.

Refer to the label of each product used in combination and observe the planting details, restrictions, and all other precautions and limitations.

**Application:** Apply before, during, or after planting, but before sorghum emerges. Add Paraquat, Glyphosate + 2,4-D or Glyphosate and apply as directed on the product labels.

**Paraquat:** Apply as directed on the Paraquat product label. This treatment will not control weeds taller than 6 inches.

**Glyphosate + 2,4-D**: See the Glyphosate + 2,4-D label for weeds controlled, specified rates for specific weeds and other information concerning use.

**Glyphosate:** See the Glyphosate label for weeds controlled, specified rates and other use directions.

# SWEET SORGHUM (SEED TREATED WITH A SEED SAFENER (e.g. CONCEP) THAT PROVIDES TOLERANCE TO S-METOLACHLOR)

Apply LIBERTY S-MOC D preplant surface, preplant incorporated, preemergence, or postemergence using the appropriate rate specified below. Apply LIBERTY S-MOC D only when the sweet sorghum seed has been properly treated with a seed safener that provides tolerance to S-metolachlor (e.g. Concep). Preplant or preemergence applications of LIBERTY S-MOC D to sweet sorghum not treated with a seed safener that provides tolerance to S-metolachlor will result in crop death.

**Soil-Applied:** Apply LIBERTY S-MOC D up to 45 days before planting. Use only split applications for treatments made 30 to 45 days prior to planting, with 2/3 of the broadcast rate applied initially and the remaining 1/3 at planting. Treatments less than 30 days prior to planting may be made either as a split or single application. Under dry conditions, irrigation after application is necessary to move LIBERTY S-MOC D into the soil.

LIBERTY S-MOC D Rates for Soil Applications to Sweet Sorghum

Soil Type	30 to 45 Days Prior to Planting <sup>1</sup>	<30 Days Prior to Planting	At Planting <sup>2</sup>
Coarse	Do not use	1.33 pts./A	1.0 to 1.33 pts./A
Medium	1.5 pts./A	1.5 pts./A	1.33 to 1.5 pts./A
Fine	1.67 pts./A	1.67 pts./A	1.33 to 1.67 pts./A

<sup>&</sup>lt;sup>1</sup>Use only as a split application with 2/3 of the broadcast rate applied initially and the remaining 1/3 applied at planting.

**Post-Applied:** LIBERTY S-MOC D may be applied postemergence to sweet sorghum for residual control of grasses and small-seeded broad leaf weeds. Postemergence application to sweet sorghum may be made to crop up to 5 inches in height. LIBERTY S-MOC D will not control emerged weeds. Therefore, emerged weeds must be controlled by cultural or other chemical methods. When applied alone, LIBERTY S-MOC D will be safe to emerged sweet sorghum. Use of adjuvants is prohibited on sweet sorghum.

LIBERTY S-MOC D Rates for Postemergence Applications to Sweet Sorghum

Soil Type	Postemergence Rate Per Acre
Coarse	1.0 to 1.33 pts.
Medium	1 22 pto
Fine	1.33 pts.

#### **Precautions**

- If sweet sorghum seed is not properly treated with a seed safener that provides tolerance to S-metolachlor (e.g. Concep), soil applications of this product prior to sorghum emergence will severely injure the crop.
- Under high soil moisture conditions prior to sweet sorghum emergence, injury may occur following soil applications of this product. The crop will normally outgrow this effect.
- To avoid crop injury, do not use this product on sorghum grown under dry mulch tillage.

### Restrictions

- Only one application per season is allowed. This product may be applied either as a soil-applied treatment or a postemergence treatment, but not both.
- Preharvest Interval (PHI): Do not apply this product postemergence within 90 days of harvest.

## **SOYBEANS - LIBERTY S-MOC D ALONE**

Apply LIBERTY S-MOC D preplant surface-applied, preplant incorporated, preemergence, or postemergence using the appropriate rate specified below. Follow instructions for use of LIBERTY S-MOC D alone under **Application Procedures** section of this label.

#### Fall Application for Spring Weed Control:

- 1. Apply after September 30 in ND, SD, MN, WI, and north of Route 30 in IA.
- 2. Apply after October 15 north of Route 91 in NE and south of Route 30 in IA.
- 3. Apply after October 31 north of Route 136 in IL.

In all locations, apply to crop stubble after harvest when the sustained soil temperature at a 4-inch depth is less than 55°F and falling. In minimum-till or no-tillage systems on soils having greater than 2.5% organic matter, use 1.67 to 2.0 pints of this product per acre on medium-textured and 2.0 pints (1.91 lbs. a.il) of this product per acre on fine-textured soils. A tillage operation may precede the application. A fall and/or a spring tillage may follow application, but do not exceed an incorporation depth greater than 2 to 3 inches. Minimize furrow and ridge formation in the tillage operations.

#### Restrictions

• Do not apply to frozen ground.

<sup>&</sup>lt;sup>2</sup>Preplant incorporated or preemergence

• If a spring application is made, the total rate of the fall plus spring applications must not exceed the maximum total rate for soybeans of 2.5 pints per acre depending on soil texture.

**Fall Application for Italian Ryegrass Control:** LIBERTY S-MOC D may be applied for residual control of glyphosate-resistant Italian ryegrass (*Lolium multiflorum*). Apply LIBERTY S-MOC D at 1.33 to 1.67 pints per acre in the fall (September 1 to December 1) after harvest of the previous crop and prior to Italian ryegrass emergence. Use the lower LIBERTY S-MOC D rate for coarse-textured soils and the higher rate for fine-textured soils. A tillage operation may precede the application. Do not incorporate to a depth greater than 2 to 3 inches if tillage follows the application of LIBERTY S-MOC D. For fall applications after emergence of glyphosate-resistant Italian ryegrass, Paraquat can be tank mixed with LIBERTY S-MOC D for control emerged ryegrass. Refer to the Paraquat label for specific rates, application instructions, and restrictions. Other registered herbicides may be tank mixed with LIBERTY S-MOC D for control of improved control of other weeds present at the time of application.

#### Restrictions

- Do not apply this product to frozen ground.
- If a spring application is made, the combined total amount of this product applied in the fall plus the spring must not exceed the maximum seasonal S-metolachor rate for soybeans (2.5 pints per acre, depending on soil texture).

**Preplant Surface - Spring Application:** Use on medium and fine soils with minimum- tillage or notillage systems in CO, CT, DE, IA, IL, IN, KS, KY, MA, MD, ME, MI, MN, MO, MT, ND, NE, NH, NY, OH, PA, RI, SD, TN, VA, VT, WI, WV, and WY. Apply 2/3 the specified rate of LIBERTY S-MOC D (1.67 pints per acre on medium soils and 2.0 pints per acre on fine soils) as a split treatment 30 to 45 days prior to planting and the remainder at planting. Applications made less than 30 days before planting may be as either a split or single treatment. Apply 1.33 pints per acre of LIBERTY S-MOC D on coarse soils not more than 2 weeks prior to planting.

## Restrictions

- On soybeans, use up to 2.5 pints per acre of this product preplant incorporated or preemergence treatment on soils having an organic matter content between 6% and 20%.
- Do not apply more than 2.5 pints of this product per acre during any one crop season.
- Do not graze or feed treated soybean forage, hay, or straw to livestock 30 days following treatment.

**Preplant Incorporated or Preemergence:** On coarse soils, apply 1.0 to 1.33 pints of this product per acre if organic matter content is less than 3%, or 1.33 pints per acre if organic matter content is 3% or greater. On medium soils, apply 1.33 to 1.67 pints of this product per acre. On fine soils, apply 1.33 to 1.67 pints of this product per acre if organic matter content is less than 3%, or 1.67 to 2.0 pints per acre if organic matter content is 3% or greater.

#### Restrictions

- On soybeans, use up to 2.5 pints per acre of this product preplant incorporated or preemergence treatment on soils having an organic matter content between 6% and 20%.
- The total rate of this product applied to soybeans during any one crop should not exceed 2.5 pints per acre.
- Do not graze or feed treated soybean forage, hay, or straw to livestock 30 days following treatment.

**Postemergence:** Apply 1.0 to 1.33 pints of this product per acre as a postemergence treatment to soybeans from emergence up through the third trifoliate leaf stage. LIBERTY S-MOC D will not control emerged weeds so it must be applied to a weed-free soil surface or in a tank mixture with products that provide postemergence control of weeds present at the time of application.

LIBERTY S-MOC D can also be applied as part of a sequential soybean weed control program. If LIBERTY S-MOC D was applied as a preplant surface, preplant incorporated, or a preemergence

treatment, a second treatment of LIBERTY S-MOC D can be applied postemergence provided that the total LIBERTY S-MOC D rate during any one crop does not exceed 2.5 pints per acre.

#### Restrictions

- Do not apply more than 1.33 pints of this product per acre postemergence.
- The total rate of this product rate applied preplant, preemergence or postemergence to soybeans during any one crop year should not exceed 2.5 pints of this product per acre.
- Preharvest Interval (PHI): Make postemergence application at least 90 days before harvest.
- Do not graze or feed treated forage or hay from soybeans to livestock following a postemergence application of this product.

#### **SOYBEANS - LIBERTY S-MOC D COMBINATIONS**

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.

Water or fluid fertilizer may be used as carrier for LIBERTY S-MOC D in combination with Clomazone, Ethafluralin, Imazaquin, Imazethapyr, Linuron, Metribuzin or Metribuzin + Chlorimuron.

#### Restrictions

- For all of the following combinations, on soybeans use up to 2.5 pints of this product per acre preplant incorporated or preemergence treatment on soils having an organic matter content between 6% and 20%.
- The total rate of this product rate applied to soybeans during any one crop year should not exceed 2.5 pints per acre.

### **Tank Mixture with Metribuzin**

In addition to those weeds controlled by LIBERTY S-MOC D alone, LIBERTY S-MOC D + Metribuzin, when applied as directed, also controls the following broadleaf weeds: cocklebur\*, hairy nightshade, hemp sesbania, jimsonweed\*, lambsquarters, prickly sida, ragweed, smartweed, velvetleaf, Venice mallow, and wild mustard.

\*Partially controlled.

Apply LIBERTY S-MOC D and Metribuzin preplant incorporated or preemergence, using the appropriate rates from **Table 11**.

**Preplant Incorporated or Preemergence:** Follow instructions for use of LIBERTY S-MOC D alone under **Application Procedures**.

**Sequential:** Apply LIBERTY S-MOC D alone **Preplant Incorporated**, as specified in **Table 11** for this tank mixture. Follow with a preemergence application of Metribuzin during planting (behind the planter) or after planting, but before weeds or soybeans emerge.

Refer to the Metribuzin label for planting details and soybean variety restrictions. Follow most restrictive limitations and precautions on the **LIBERTY S-MOC D - Soybeans Alone** section of this product label and the Soybean directions on the Metribuzin label.

Table 11: LIBERTY S-MOC D + Metribuzin - Sovbeans

	Broadcast Rates Per Acre				
Soil Texture*	0.5 to < 3% Org	anic Matter	≥ 3% Organ	ic Matter	
	LIBERTY S-MOC D	Metribuzin	LIBERTY S-MOC D	Metribuzin	
COARSE		See Metribuzin		See Metribuzin	
Loamy sand (over	0.0 to 1.0 mts	label of product	1.0 pt.	label of product	
2% organic matter),	0.8 to 1.0 pts.	being used for	1.0 μι.	being used for	
Sandy loam		application rates		application rates	

	Broadcast Rates Per Acre			
Soil Texture*	0.5 to < 3% Organic Matter		≥ 3% Organic Matter	
	LIBERTY S-MOC D	Metribuzin	LIBERTY S-MOC D	Metribuzin
MEDIUM	1.0 to 1.33 pts.		1.33 pts.	
FINE				
MISSISSIPPI	1.33 pts.		1.33 to 1.67 pts.	
<b>DELTA ONLY</b>	1.55 pts.		1.00 to 1.07 pts.	
Silty clay, Clay				
<b>MUCK OR PEAT</b>				
(soils with more	DO NOT USE			
than 20% organic				

<sup>\*</sup>On all sand and on loamy sand with less than 2% organic matter, do not use this tank mixture preemergence or the sequential treatment. Do not use the tank mixture preplant incorporated on any sand, loamy sand or sandy loam or crop injury may occur.

### **Precautions**

- Do not use the tank mix or sequential application on soil with less than 0.5% organic matter or on alkaline soil with a pH over 7.4, or crop injury may occur.
- If heavy rain occurs soon after application, crop injury may result, especially in poorly drained areas where water stands for several days.

#### **Tank Mixture with Linuron**

In addition to those weeds controlled by LIBERTY S-MOC D alone, LIBERTY S-MOC D + Linuron applied preemergence, also controls the following broadleaf weeds: cocklebur\*, jimsonweed\*, lambsquarters, morningglory\*, prickly sida, ragweed, smartweed, velvetleaf\*, Venice mallow, and wild mustard. \*Partially controlled.

**Preemergence:** Apply during planting (behind planter) or after planting, but before weeds or soybeans emerge. Refer to the Linuron label for planting details. Apply the appropriate rates from **Table 12**.

Table 12: LIBERTY S-MOC D + Linuron – Soybeans

	Broadcast Rates Per Acre				
	0.5 to Less Than 3%	6 Organic Matter	3% Organic Matter or Greate		
Soil Texture*	LIBERTY S-MOC D	Linuron	LIBERTY S-MOC D	Linuron	
COARSE**	0.8 pt.	See Linuron label of product being used for	1.0 pt.	See Linuron labe	
MEDIUM	1.0 pt.		1.33 pts.	of product being used for	
FINE	1.33 pts.	application rates	1.33 to 1.67 pts.	application rates	
Muck or Peat (soils with more than 20% organic	DO NOT USE				

<sup>\*</sup> Do not use on sand, gravelly soils, or exposed subsoils.

## **Precaution**

• To avoid crop injury, do not use on soil with less than 0.5% organic matter.

## **Tank Mixture with Trifluralin**

LIBERTY S-MOC D + Trifluralin tank mix applied preplant incorporated controls those weeds listed under **LIBERTY S-MOC D Applied Alone** and those weeds listed for Trifluralin Alone on the Trifluralin label. LIBERTY S-MOC D + Trifluralin may be applied by ground or aerial equipment and incorporated up to 14 days before planting. Follow the specified procedures on the Trifluralin and LIBERTY S-MOC D labels, using equipment that provides uniform 2-inch incorporation.

<sup>\*\*</sup> Do not use on loamy sand, except in the Northeastern U.S. on loamy sand with over 1% organic matter.

Apply LIBERTY S-MOC D + Trifluralin tank mix using the appropriate rate from the **Soybeans – LIBERTY S-MOC D Alone** section of this label and the Trifluralin Alone section of the Trifluralin label for the specific soil texture/organic matter classification and weed species expected.

To control Dinitroaniline-resistant (DNA-resistant) Goosegrass\* and other species on the respective labels where the soil organic matter is 3% or less, apply the rate in **Table 13**. Follow the most restrictive limitations and precautions on the **Soybeans - LIBERTY S-MOC D Alone** section of the LIBERTY S-MOC D label and the Soybean directions on the Trifluralin labels.

Table 13: LIBERTY S-MOC D + Trifluralin - Organic Matter Content Less Than 3%

	Bro	adcast Rates Rates Per A	Acre		
	LIBERTY S-MOC D	Trifle	fluralin		
Soil Texture	Less Than 3% Organic Matter	Less than 2%Organic Matter	2 to 3% Organic Matter		
COARSE*	0.8 to 1.0 pt.	See Trifluralin label of product being used for application rates			
MEDIUM	1.0 pt.				
FINE	1.33 pts.	being used for application rates			

<sup>\*</sup> Where a range of rates is given for this product use the minimum rate where DNA-resistant Goosegrass is the predominant species.

## **Tank Mixture with Imazaquin**

This tank mixture controls all weeds controlled by LIBERTY S-MOC D alone and by Imazaquin alone. Refer to the **LIBERTY S-MOC D Applied Alone** section for weeds controlled by LIBERTY S-MOC D and to the Imazaquin label for weeds controlled by Imazaquin. Refer to the Imazaquin label for geographical locations where this tank mixture may be applied.

Apply LIBERTY S-MOC D + Imazaquin preplant incorporated or preemergence, using rates in **Table 14**. Follow use directions under **Application Instructions** on the Imazaquin label. For preplant incorporated applications, apply and incorporate within 30 days before planting. Observe all other precautions and limitations on the Imazaquin labels.

Follow the most restrictive limitations and precautions on the **LIBERTY S-MOC D - Soybeans Alone** section of the LIBERTY S-MOC D label and the Soybean directions on the Imazaquin label.

Table 14: LIBERTY S-MOC D + Imazaguin - Soybeans

	Broadcast Rates Per Acre				
	Less Than 3% Organic Matter		3% or More Organic Matter		
Soil Texture	LIBERTY S-MOC D	Imazaquin	LIBERTY S-MOC D	Imazaquin	
COARSE	0.8 pt.	See Imazaquin	1.0 pt.	See Imazaquin	
MEDIUM	1.0 pt.	label of product being used for	1.33 pts.	label of product being used for	
FINE	1.33 pts.	application rates	1.33 to 1.67* pts.	application rates	
MUCK OR PEAT (soils with more than 20% organic	DO NOT USE				
* Use the higher rate of	this product if heavy w	veed infestations a	re expected.		

## Tank Mixture with Metribuzin + Chlorimuron Ethyl

This tank mixture controls all weeds controlled by LIBERTY S-MOC D alone and by Metribuzin + Chlorimuron Ethyl alone. Refer to the **LIBERTY S-MOC D Applied Alone** section for weeds controlled by LIBERTY S-MOC D and to the Metribuzin + Chlorimuron Ethyl label for weeds controlled by Metribuzin + Chlorimuron Ethyl.

Apply preplant incorporated or preemergence, using the appropriate rates from **Table 15**.

**Preplant Incorporated:** Apply within 2 weeks of planting. Uniformly incorporate into the top 1 to 2 inches of soil before planting soybeans.

**Preemergence:** Apply after planting, but before soybeans emerge.

Follow all use directions, varietal restrictions, limitations, use precautions and information regarding application to Soybeans and rotational restrictions on the LIBERTY S-MOC D and Metribuzin + Chlorimuron labels.

Table 15: LIBERTY S-MOC D + Metribuzin + Chlorimuron Ethyl – Soybeans

_	Bro LIBERTY S	adcast Rates Per Acre	
Soil Texture	<less 3%="" matter<="" organic="" th="" than=""><th>3% or More Organic Matter</th><th>Metribuzin + Chlorimuron</th></less>	3% or More Organic Matter	Metribuzin + Chlorimuron
COARSE	0.8 pt.	1.0 pt.	*
MEDIUM	1.0 pt.	1.33 pts.	*
FINE	1.33 pts.	1.33 to 1.67 pts.	*

<sup>\*</sup>Refer to the Metribuzin + Chlorimuron label for appropriate rate according to geographical location, soil and organic matter classification and pH limitations.

#### Restriction

• Do not apply to sand, or to any soil with less than 0.5% organic matter, or to any soil with pH greater than 7.0, except as noted on the Metribuzin + Chlorimuron Ethyl label.

#### **Tank Mixture with Clomazone\***

This tank mixture controls all weeds controlled by LIBERTY S-MOC D alone and by Clomazone alone. Refer to the **LIBERTY S-MOC D Applied Alone** section for weeds controlled by LIBERTY S-MOC D and to the Clomazone label for weeds controlled by Clomazone.

Apply LIBERTY S-MOC D + Clomazone preplant incorporated, using rates in **Table 16**. Follow all Clomazone application instructions as to incorporation interval, geographical location, equipment operation, soil moisture conditions, etc.

Table 16: LIBERTY S-MOC D + Clomazone – Soybeans

Table 16: LIBERTY 5-MOC D + Clomazone — Soybeans							
	Broadcast Rates Per Acre						
	LIBERT	Clomazone					
Soil Texture	0.5 - 3% Organic Matter	Greater Than 3% Organic Matter	Northern Area	Southern Area			
COARSE	0.8 pt.	1.0 pt.	See Clomaz	See Clomazone label of product being used for application rates			
MEDIUM	1.0 pt.	1.33 pts.					
FINE	1.33 pts.	1.33 to 1.67 pts.	applicati				

## Tank Mixture with Ethafluralin

This tank mixture controls all weeds controlled by LIBERTY S-MOC D alone and by Ethafluralin alone. Refer to the **LIBERTY S-MOC D Applied Alone** section for weeds controlled by LIBERTY S-MOC D and to the Ethafluralin label for weeds controlled by Ethafluralin.

Apply LIBERTY S-MOC D and Ethafluralin preplant incorporated, using the appropriate rates from **Table 17**.

<sup>\*</sup>Follow the most restrictive limitations and precautions on the **LIBERTY S-MOC D – Soybeans Alone** section of the LIBERTY S-MOC D label and the Soybean directions on the Clomazone label, including rotational restrictions.

**Preplant Incorporated:** Follow specified soil preparation procedures for Ethalfluralin. Refer to the Ethalfluralin label for incorporation directions.

**Sequential:** Apply Ethafluralin alone preplant incorporated as specified on the Ethafluralin label. Follow with a preemergence application of LIBERTY S-MOC D during planting (behind the planter) or after planting, but before weeds or soybeans emerge.

Follow the most restrictive limitations and precautions on the **LIBERTY S-MOC D – Soybeans Alone** section of the LIBERTY S-MOC D label and the Soybean directions on the Ethafluralin label.

Table 17: LIBERTY S-MOC D + Ethafluralin – Soybeans

	Broadcast Rates Per Acre					
	Less Than 3% Organic Matter		3% or More Organic Matter			
Soil Texture	LIBERTY S-MOC D	Ethafluralin	LIBERTY S-MOC D	Ethafluralin		
COARSE	1.0 to 1.33 pts.	See Ethalfluralin	1.33 pts.	See Ethalfluralin label of product being used for application rates		
MEDIUM*	4 22 to 4 67 mts	label of product being used for application rates	1.33 to 1.67 pts.			
FINE*	1.33 to 1.67 pts.		1.67 to 2.0 pts.			
MUCK OR PEAT (soils with more than 20% organic matter)	DO NOT USE					

<sup>\*</sup>For Eastern black nightshade on these soils, apply Ethafluralin at labeled rate and follow with 2 incorporation passes.

## **Tank Mixture with Imazethapyr**

This tank mixture controls all weeds controlled by LIBERTY S-MOC D alone and by Imazethapyr alone. Refer to the **LIBERTY S-MOC D Applied Alone** section for weeds controlled by LIBERTY S-MOC D and to the Imazethapyr label for weeds controlled by Imazethapyr. Refer to the Imazethapyr label for geographical locations where this tank mixture may be applied.

Apply LIBERTY S-MOC D + Imazethapyr early preplant, preplant incorporated, or preemergence after planting, using rates in **Table 18**. Application can be made in water or liquid fertilizer. Follow all use directions under Soil Applications on the Imazethapyr label. For early preplant and preplant incorporated applications, apply within 30 days before planting.

Follow the most restrictive limitations and precautions on the **LIBERTY S-MOC D – Soybeans Alone** section of the LIBERTY S-MOC D label and the Soybean directions on the Imazethapyr label, including rotational restrictions.

Table 18: LIBERTY S-MOC D + Imazethapyr - Soybeans

	Broadcast Rates Per Acre				
	Less Than 3% Organic Matter	3% or More Organic Matter	Less Than 3% - 3% or More Organic Matter		
Soil Texture	LIBERTY S-MOC D		Imazethapyr		
COARSE	0.8 pt.	1.0 pt.	See		
MEDIUM	1.0 pt.	1.33 pts.	Imazethapyr label of product being used for application rates		
FINE	1.33 pts.	1.33 to 1.67 pts.			

**Sequential:** Apply LIBERTY S-MOC D early preplant, preplant incorporated, or preemergence after planting at 0.8 pint per acre on coarse soils and 1.0 pint per acre on medium- and fine-textured soils.

Follow with a sequential postemergence application of Imazethapyr to control emerged weeds according to the Imazethapyr label. LIBERTY S-MOC D will improve the consistency and level of control from Imazethapyr on most grass species. Refer to the Imazethapyr postemergence label for a listing of weeds controlled, application rate, and growth stage limitations.

# Tank Mixture with Metribuzin, Imazaquin, Linuron, Metribuzin + Chlorimuron or Imazethapyr Plus Paraquat or Glyphosate for Minimum-Tillage or No-Tillage Systems

In minimum-tillage or no-tillage systems where Soybeans are planted directly into a cover crop, stale seedbed, established sod or previous crop residues, the contact herbicides Paraquat or Glyphosate may be added to a tank mix of this product plus one of the following:

Imazaquin Imazethapyr Linuron

Metribuzin
Metribuzin + Chlorimuron

When used as directed, the Paraquat portion of the tank mixture controls most emerged weeds and suppresses many perennial weeds. Glyphosate combinations will control emerged annual and perennial weeds when applied as directed on the Glyphosate label. This product + tank mix herbicides listed above portion of the tank mixture provides preemergence control of the weeds listed on this label in the tank mixture section for this product + each respective herbicide.

Refer to the label of each product used in combination and observe the planting details, Soybean variety restrictions, information regarding application to Soybeans, geographical restrictions, and all other use precautions and limitations.

**Application:** Apply before, during, or after planting, but before the soybeans emerge. Add Paraquat or Glyphosate and apply as directed on the product labels.

**Paraquat:** Apply as directed on the Paraquat label. This treatment will not control weeds taller than 6 inches.

**Glyphosate:** See the Glyphosate label for weeds controlled, specified rates, and other use directions.

Apply in 20 to 60 gallons of water or fluid fertilizer per acre with ground equipment.

### Restriction

 Do not apply combinations containing Paraquat in suspension-type liquid fertilizers, as the activity of paraquat will be reduced.

### LIBERTY S-MOC D + Metribuzin + Paraquat or Glyphosate

Apply labeled rate of Metribuzin with 1.0 pint of this product per acre on loamy sand with over 2% organic matter, with 1.33 pints of this product per acre on medium soils, or with 1.33 to 1.67 pints of this product per acre on fine soils. Refer to the Metribuzin label for appropriate rate according to geographical location, soil and organic matter classification, pH limitations and all other use directions.

## **Precautions**

- To avoid crop injury, do not use this tank mixture on soil with less than 0.5% organic matter, on alkaline soil with a pH over 7.4, or on all sand and on loamy sand with less than 2% organic matter.
- If heavy rain occurs soon after application, crop injury may result, especially in poorly drained areas where water stands for several days, or where the seeding slit has not been properly closed.

# LIBERTY S-MOC D + Imazaquin + Paraquat or Glyphosate

Apply labeled rate of Imazaquin with 1.0 pint (0.96 lb. a.i of this product per acre on coarse soils, with 1.33 pints of this product per acre on medium soils or with 1.67 pints of this product per acre on fine soils. Refer to the Imazaquin label for appropriate rate according to geographical location, soil and organic matter classification, pH limitations and all other use directions.

#### Restrictions

• Preharvest Interval (PHI): Do not apply within 90 days of harvest.

• Do not graze or feed treated soybean forage, hay, or straw to livestock.

## LIBERTY S-MOC D + Linuron + Paraquat or Glyphosate

Apply labeled rate of Linuron with 1 pint of this product per acre on coarse soils\*, with 1.33 pints of this product per acre on medium soils or with 1.33 to 1.67 pints of this product per acre on fine soils. Refer to the Linuron label for appropriate rate according to geographical location, soil and organic matter classification, pH limitations and all other use directions.

#### **Precaution**

• Do not use on soil with less than 0.5% organic matter or crop injury may occur.

#### Restrictions

- \*Do not use on loamy sand, except in the Northeastern U.S. on loamy sand with over 1% organic matter or injury may occur.
- Do not use on sand, gravelly soils or exposed subsoils or injury may occur.

## LIBERTY S-MOC D + Metribuzin + Chlorimuron Ethyl + Paraquat or Glyphosate

Use only where soils have 0.5 to 5% organic matter. Apply labeled rate of Metribuzin + Chlorimuron with 1 pint of this product per acre on coarse soils (except sand), with 1.33 pints of this product per acre on medium soils or with 1.33 to 1.67 pints of this product per acre on fine soils. Refer to the Metribuzin + Chlorimuron label for appropriate rate according to geographical location, soil and organic matter classification, pH limitations and all other use directions.

#### Restriction

• Do not apply to sand, or to any soil with less than 0.5% organic matter, or to any soil with pH greater than 7.0, except as noted on the Metribuzin + Chlorimuron label.

## LIBERTY S-MOC D + Imazethapyr + Paraquat or Glyphosate

Apply labeled rate of mazethapyr with 1 pint of this product per acre on coarse soils, with 1.33 pints of this product per acre on medium soils or with 1.67 pints of this product per acre on fine soils. Refer to the Imazethapyr label for weeds controlled, specified rates and other use directions.

#### POSTEMERGENCE USE ON SOYBEANS - LIBERTY S-MOC D 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.

## **Tank Mixture with Glyphosate Products**

LIBERTY S-MOC D at 1.0 to 1.33 pints per acre may be tank mixed with glyphosate products at labeled rates and applied from emergence up through the third trifoliate leaf stage of Roundup Ready or glyphosate-tolerant soybeans. LIBERTY S-MOC D alone will not control emerged weeds. Use this treatment only on soybeans designated for use with glyphosate (e.g., Roundup Ready or glyphosate-tolerant soybeans). The glyphosate product must be registered for postemergence use in Roundup Ready or glyphosate-tolerant soybeans.

# **Tank Mixture with Imazethapyr**

LIBERTY S-MOC D at 1.0 to 1.33 pints per acre may be tank mixed with Imazethapyr at labeled rates and applied from emergence up through the third trifoliate leaf stage of soybeans. LIBERTY S-MOC D alone will not control emerged weeds.

## **Tank Mixture with Glufosinate-ammonium Products**

LIBERTY S-MOC D at 1.0 to 1.33 pints per acre may be tank mixed with Glufosinate products at labeled rates and applied from emergence up through the third trifoliage leaf stage of soybeans. LIBERTY S-MOC D alone will not control emerged weeds. Use this treatment only on soybeans designated for use with glufosinate (e.g. LibertyLink).

### **Precaution**

• The use of adjuvants such as COC or UAN with this product may result in temporary crop injury. Follow the tank mix product label for adjuvant directions.

#### Restrictions

- Do not apply more than 1.33 pints per acre postemergence.
- Preharvest Internal (PHI): Make postemergence application at least 90 days before harvest.
- Do not graze or feed treated forage or hay from soybeans to livestock following a postemergence application of this product.

# **SUGAR BEETS - LIBERTY S-MOC D ALONE**

## **Postemergence Applications**

LIBERTY S-MOC D may be applied postemergence to sugar beets after the sugar beets have reached the first true-leaf stage. However, because LIBERTY S-MOC D is primarily a soil-active herbicide, it must be applied prior to weed emergence in order to provide consistent control of listed weeds. As such, weeds that are emerged with or before the crop, or that are present at the time LIBERTY S-MOC D is applied, must be controlled with another appropriately labeled herbicide. Apply LIBERTY S-MOC D at 1 pint per acre on coarse soils, 1.33 pints per acre on medium soils or 1.67 pints per acre on fine soils. More than one postemergence application may be applied, but the total should not exceed 2.6 pints per acre. Weeds present at the time of application will not be controlled.

#### **Precaution**

• In coarse soils, this product applied before emergence of sugar beets (i.e., other than postemergence) may cause injury.

## **Restrictions**

- Do not apply more than 2.6 pints per acre postemergence.
- Preharvest Interval (PHI): Do not harvest within 60 days after the last application.

### **SUGAR BEETS - LIBERTY S-MOC D TANK MIX COMBINATIONS**

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.

LIBERTY S-MOC D may be tank mixed with Clethodim, Clopyralid, Desmedipham, Phenmedipham + Desmedipham + Ethofumesate, Quizalofop-p-ethyl, Sethoxydim or Triflusulfuron-methyl and applied to sugar beets. Tank mixtures of these products with LIBERTY S-MOC D will increase the risk of crop injury over that of either product applied alone, as the LIBERTY S-MOC D formulation has some adjuvant properties. The addition of a spray adjuvant such as crop oil concentrates (COC's) or methylated seed oils (MSO's) can further increase the risk of crop injury. Injury risk can be reduced by using the lowest effective rate of the tank mix partner(s) and/or adjuvant and by avoiding applications under adverse growing conditions or high soil or air humidity. Refer to the individual product labels and follow all use restrictions and limitations.

# **SUNFLOWERS - LIBERTY S-MOC D ALONE**

# **Preplant Incorporated or Preemergence**

Within the rate ranges given below, use the higher rate of LIBERTY S-MOC D if heavy weed infestations are expected. On coarse soils with organic matter less than 3%, apply 1.0 to 1.33 pints of this product per acre; apply 1.33 pints per acre if organic matter is 3% or greater. On medium soils, apply 1.33 to 1.67 pints of this product per acre. On fine soils with organic matter of less than 3%, apply 1.33 to 1.67 pints of this product per acre; apply 1.67 to 2.0 pints per acre if organic matter is 3% or greater.

#### Restrictions

• Do not allow livestock to graze or feed in treated area.

• Do not exceed the maximum label rates for sunflowers for the soil type.

# TOMATOES - LIBERTY S-MOC D ALONE Transplanted

LIBERTY S-MOC D may be applied preplant incorporated or preplant before transplanting. If the latter method is used, keep soil disturbance to a minimum during the transplanting operation. Application may also be 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 and minimize contact with tomato plants. LIBERTY S-MOC D will not control emerged weeds. In bedded transplanted tomatoes, apply LIBERTY S-MOC D preplant non-incorporated to the top of the pressed bed as the last step prior to laying plastic. LIBERTY S-MOC D may also be used to treat row-middles in bedded tomatoes, as long as the total amount of LIBERTY S-MOC D does not exceed the maximum allowed per crop.

#### Seeded

LIBERTY S-MOC D 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. Minimize spray contact with tomato plants. LIBERTY S-MOC D will not control emerged weeds.

**Tomato Use Rates:** On coarse soils, apply 1.0 to 1.33 pints of this product per acre if organic matter is less than 3% or 1.33 pints per acre if organic matter is 3% or greater. On medium soils, apply 1.33 to 1.67 pints of this product per acre. On fine soils, apply 1.33 to 1.67 pints of this product per acre if organic matter is less than 3% or 1.67 to 2.0 pints per acre if organic matter is 3% or greater.

#### **Precautions**

- Do not apply to varieties or cultivars with unknown tolerance to this product.
- 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 (e.g., 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:
  - incorporating this product immediately following application,
  - applying this product seven or more days before transplanting (but only after the beds have been formed),
  - minimizing the application of this product onto the plastic of the bed, or
  - any combination of the above.

### Restrictions

- Do not exceed the maximum label rate for the soil texture per year.
- Apply only by ground application.
- 90-Day Preharvest Interval (PHI): If the single application rate of this product is greater than 1.33 pints per acre (up to 2.0 pints per acre), do not harvest tomatoes within 90 days of application.
- **30-Day Preharvest Interval (PHI):** If the application of LIBERTY S-MOC D does not exceed 1.33 pints per acre, do not harvest tomatoes within 30 days of application.

## When applying at 1.33 pints per acre with a 30-day PHI, the following restrictions apply:

- Do not exceed two applications per growing season.
- The use of adjuvants is prohibited.
- Applications may be made using ground equipment, in concentrated spray volumes.
- Applications may be made as a foliar broadcast spray to the soil within 1 week of transplanting and again at blooming/fruiting to the row middles as a banded/directed application 38 to 77 days after the first treatment.

#### STORAGE AND DISPOSAL

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

## **Pesticide Storage**

This product may be stored at temperatures down to 30 degrees below 0°F.

## **Pesticide Disposal**

Open dumping is prohibited. Wastes resulting from the use of this product are toxic. Improper disposal of unused pesticide, spray mixture, or rinsate is a violation of federal law. Pesticide, spray mixture, or rinsate that cannot be used according to label instructions must be disposed of according to federal, state, or local procedures. For guidance in proper disposal methods, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office.

### **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.

**REFILLABLE CONTAINER:** Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times. After triple rinsing is complete, and the container is not suitable for refilling or reconditioning, offer the container for recycling if available, or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures approved by state and local authorities.

## 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

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.