



**OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION**

WASHINGTON, D.C. 20460

March 19, 2025

Wanda K. Davis  
Registrations Manager  
Helena Agri-Enterprises, LLC  
d/b/a Helena Chemical Company  
225 Schilling Blvd., Suite 300  
Collierville, TN 38017

Subject: Label Amendment – Update the Crop Rotation Table to add previously omitted crops  
Product Name: HM-1507 Herbicide  
EPA Registration Number: 5905-603  
Application Date: September 17, 2021  
Case Number: 472598

Dear Wanda Davis:

The amended label referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), as amended, is acceptable. This approval does not affect any conditions that were previously imposed on this registration. You continue to be subject to existing conditions on your registration and any deadlines connected with them.

A stamped copy of your labeling is enclosed for your records. This labeling supersedes all previously accepted labeling. You must submit one copy of the final printed labeling before you release the product for shipment with the new labeling. In accordance with 40 CFR 152.130(c), you may distribute or sell this product under the previously approved labeling for 18 months from the date of this letter. After 18 months, you may only distribute or sell this product if it bears this new revised labeling or subsequently approved labeling. "To distribute or sell" is defined under FIFRA section 2(gg) and its implementing regulation at 40 CFR 152.3.

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) lists examples of statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product's label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the Agency find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA approved registration, the website will be referred to the EPA's Office of Enforcement and Compliance.

Your release for shipment of the product constitutes acceptance of these conditions. If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6.

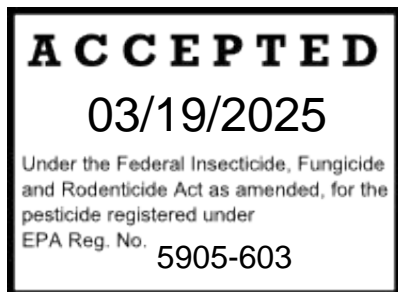
If you have any questions, please contact Endia Blunt at 202-566-2505 or at [blunt.endia@epa.gov](mailto:blunt.endia@epa.gov).

Sincerely,

*Kable Bo Davis*

Kable Bo Davis; Senior Advisor  
Office of Pesticide Programs  
Registration Division; Immediate Office

Enclosure



S-Metolachlor	GROUP	15	HERBICIDE
Fomesafen	GROUP	14	HERBICIDE

## HM-1507 HERBICIDE (ABN: SINISTER INTENT)

**NOT FOR SALE, USE, OR DISTRIBUTION IN NASSAU COUNTY OR SUFFOLK COUNTY, NEW YORK.**

For control of certain grasses and broadleaf weeds in soybeans and cotton

Active Ingredients:	% By Wt.
S-metolachlor*	45.85%
Fomesafen**	10.04%
Other Ingredients:	44.11%
Total:	100.00%

Contains 4.40 lb. of S-metolachlor and 0.95 lb. of fomesafen active ingredient per gallon.  
\*CAS No. 87392-12-9  
\*\*CAS No. 108731-70-0

**KEEP OUT OF REACH OF CHILDREN.**

### WARNING / AVISO

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

See additional precautionary statements and directions for use inside booklet.

FIRST AID	
<b>If in eyes</b>	<ul style="list-style-type: none"><li>• Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li><li>• Remove contact lenses, if present, after the first 5 minutes then continue rinsing eye.</li><li>• Call a poison control center or doctor for treatment advice.</li></ul>
<b>If swallowed</b>	<ul style="list-style-type: none"><li>• Call a poison control center or doctor immediately for treatment advice.</li><li>• Have person sip a glass of water if able to swallow.</li><li>• Do not induce vomiting unless told to do so by the poison control center or doctor.</li><li>• Do not give anything by mouth to an unconscious person.</li></ul>
<b>If inhaled</b>	<ul style="list-style-type: none"><li>• Move person to fresh air.</li><li>• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible.</li><li>• Call a poison control center or doctor for further treatment advice.</li></ul>
<b>If on skin or clothing</b>	<ul style="list-style-type: none"><li>• Take off contaminated clothing.</li><li>• Rinse skin immediately with plenty of water for 15-20 minutes.</li><li>• Call a poison control center or doctor for treatment advice.</li></ul>
<b>HOTLINE NUMBER</b> Have the product container or label with you when calling a poison control center or doctor, or going for treatment. In case of an emergency involving this product and for 24-hour medical emergency assistance (human or animal) and chemical emergency assistance (spill, leak, fire, or accident), call CHEMTREC at 1-800-424-9300.	

EPA Reg. No. 5905-603  
EPA Est.

NET CONTENTS: \_\_\_\_\_  
AD XXXXXX



Manufactured for  
Helena Agri-Enterprises, LLC  
225 Schilling Boulevard, Suite 300  
Collierville, TN 38017

**PRECAUTIONARY STATEMENTS**  
**Hazards to Humans and Domestic Animals**

**WARNING.** Causes substantial but temporary eye injury. Do not get in eyes or on clothing. Wear appropriate protective eyewear (goggles, face shield, or safety glasses. 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.

Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

**Personal Protective Equipment (PPE)**

**Mixers, loaders, applicators and other handlers must wear:**

- Long-sleeved shirt and long pants
- Chemical-resistant gloves: barrier laminate or Viton® ≥14 mils
- Shoes plus socks
- Protective eyewear such as goggles, face shield, or safety glasses.

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

**Engineering Controls**

Mixers and loaders supporting aerial applications are required to use closed systems. The closed system must be used in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides (40 CFR 170.607(d-f)). 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 170.607(d-f)), 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 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**

For Terrestrial Uses: Do not apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment wash water or rinsate. Do not apply when weather conditions favor drift from target area.

Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas.

**Reporting Ecological Incidents:**

To report ecological incidents, including mortality, injury, or harm to plants and animals, call 901-761-0050.

**GROUNDWATER ADVISORY**

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

## **SURFACE WATER ADVISORY**

This product may impact surface water quality due to runoff of rain water. This is especially true for poorly draining soils and soils with shallow ground water. This product is classified as having high potential for reaching surface water via runoff for several weeks or months after application. A level, well-maintained vegetative buffer strip between areas to which this product is applied and surface water features such as ponds, streams, and springs will reduce the potential loading of the product from runoff water and sediment. Runoff of this product will be reduced by avoiding applications when rainfall or irrigation is expected to occur within 48 hours. For more information, see the United States Department of Agriculture National Resource Conservation Service's manual, "*Conservation Buffers to Reduce Pesticide Losses*."

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

## **Physical-Chemical Hazard**

Do not mix or allow coming in contact with oxidizing agent. Hazardous Chemical reaction may occur.

## **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 antisiphoning devices must be used on all mixing and/or irrigation equipment.

This product may not be mixed or loaded within 50 ft. of perennial or intermittent streams and rivers, natural or impounded lakes and reservoirs. This product may not be mixed/loaded or used within 50 ft. 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 ft. 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.

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.

## **Endangered Species Protection Requirements:**

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

### **AGRICULTURAL USE REQUIREMENTS**

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

**Do not enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 24 hours.**

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

For early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves: barrier laminate or Viton® ≥14 mils
- Shoes plus socks
- Protective eyewear (goggles, face shield, or safety glasses).

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

### **PRODUCT INFORMATION**

HM-1507 HERBICIDE is a selective herbicide for the control or partial control of certain grass, broadleaf and sedge weeds in soybeans. HM-1507 HERBICIDE may be applied as a preplant surface, preplant incorporated, preemergence, or postemergence treatment.

### **MODE OF ACTION**

HM-1507 HERBICIDE is a mixture of the active ingredients S-metolachlor and fomesafen. S-metolachlor is a biosynthesis inhibitor (Group 15 mode of action) preventing cell division in emerging weeds. Fomesafen is a protoporphyrinogen oxidase inhibitor (Group 14 mode of action) leading to cellular membrane disruption and plant death.

### **WEED RESISTANCE-MANAGEMENT**

For resistance management, HM-1507 Herbicide is a combination of s-metolachlor and fomesafen (Group 15 and 14 herbicides). Any weed population may contain or develop plants naturally resistant to HM-1507 Herbicide and other Group 15 and 14 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.

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

- Rotate the use of HM-1507 Herbicide or other Group 15 and 14 herbicides within a growing season sequence or among growing seasons with different herbicide groups that control the same weeds in a 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 after herbicide application to monitor weed populations for early signs of resistance development. Indicators of possible herbicide resistance include: (1) failure to control a weed species normally controlled by the herbicide at the dose applied, especially if control is achieved on adjacent weeds; (2) a spreading patch of non-controlled plants of a particular weed species; (3) surviving plants mixed with controlled individuals of the same species. If

resistance is suspected, prevent weed seed production in the affected area by an alternative herbicide from a different group or by a mechanical method such as hoeing or tillage. Prevent movement of resistant weed seeds to other fields by cleaning harvesting and tillage equipment when moving between fields and planting clean seed.

- If a weed pest population continues to progress after treatment with this product, discontinue use of this product, and switch to another management strategy or herbicide with a different mode of action, if available.
- Contact your local extension specialist or certified crop advisors for additional pesticide resistance-management and/or integrated weed-management recommendations for specific crops and weed biotypes.
- For further information or to report suspected resistance, contact Helena Agri-Enterprises, LLC representatives at 901-761-0050.

Fields should be scouted prior to application to identify the weed species present and their growth stage to determine if the intended application will be effective.

Fields should be scouted after application to verify that the treatment was effective.

Suspected herbicide-resistant weeds may be identified by these indicators:

- Failure to control a weed species normally controlled by the herbicide at the dose applied, especially if control is achieved on adjacent weeds;
- A spreading patch of non-controlled plants of a particular weed species; and
- Surviving plants mixed with controlled individuals of the same species.

Report any incidence of non-performance of this product against a particular weed species to your Helena Agri-Enterprises representative or call 901-761-0050. If resistance is suspected, treat weed escapes with an herbicide having a different mechanism of action and/or use non-chemical means to remove escapes, as practical, with the goal of preventing further seed production.

Plant into weed-free fields and keep fields as weed-free as possible.

To the extent possible, use a diversified approach toward weed management. Whenever possible incorporate multiple weed-control practices such as mechanical cultivation, biological management practices, and crop rotation.

Fields with difficult to control weeds should be rotated to crops that allow the use of herbicides with alternative mechanisms of action or different management practices.

To the extent possible do not allow weed escapes to produce seeds, roots or tubers. Manage weed seeds at harvest and post-harvest to prevent a buildup of the weed seedbank.

Prevent field-to-field and within-field movement of weed seed or vegetative propagules. Thoroughly clean plant residues from equipment before leaving fields.

Prevent an influx of weeds into the field by managing field borders.

Identify weeds present in the field through scouting and field history and understand their biology. The weed-control program should consider all of the weeds present.

Difficult to control weeds may require sequential applications of herbicides with differing mechanisms of action.

Apply this herbicide at the correct timing and rate needed to control the most difficult weed in the field.

If resistance is suspected, treat weed escapes with an herbicide with a different MOA or use non-chemical methods to remove escapes.

Use a broad-spectrum soil-applied herbicide with a mechanism of action that differs from this product as a foundation in a weed-control program. Do not use more than two applications of this or any other herbicide with the same mechanism of action within a single growing season unless mixed with an herbicide with another mechanism of action with an overlapping spectrum for the difficult-to-control weeds.

## MIXING INSTRUCTIONS

Prepare no more spray mixture than is needed for the immediate operation. Thoroughly clean the spray equipment before using HM-1507 HERBICIDE. Vigorous agitation is necessary to maintain uniformity of the spray mixture. Maintain maximum agitation throughout the spraying operation. Do not allow spray mixture to stand overnight in the spray tank. Flush the spray equipment thoroughly following each use and apply the rinsate to a previously treated area.

### Application in Water or Fluid Fertilizers

**HM-1507 HERBICIDE Alone:** Add  $\frac{1}{3}$  of the required amount of water or fluid fertilizer to the spray or mixing tank. With the agitator running, add HM-1507 HERBICIDE into the spray tank. Continue agitation while adding the remainder of the water or fluid fertilizer. Begin application of the spray solution after the HM-1507 HERBICIDE has completely dispersed in the water or fluid fertilizer. Maintain agitation until all of the mixture has been applied.

**HM-1507 HERBICIDE + Tank Mixtures:** Add  $\frac{1}{3}$  of the required amount of water or fluid fertilizer to the mix tank. Start the agitator running before adding any tank mix partners. In general, tank mix partners should be added in this order: products packaged in water-soluble packaging, wettable powders, wettable granules (dry flowables), liquid flowables, liquids such as HM-1507 HERBICIDE, and emulsifiable concentrates. Always allow each tank mix partner to become fully dispersed before adding the next product. Provide sufficient agitation while adding the remainder of the water. Maintain agitation until all of the mixture has been applied.

**Notes:** (1) When using HM-1507 HERBICIDE in tank mixtures, all products in water-soluble packaging should be added to the tank and mixed with plain water before any other tank mix partner, including HM-1507 HERBICIDE. Allow the water-soluble packaging to completely dissolve and the product(s) to completely disperse before adding any other tank mix partner to the tank. (2) Water-soluble packets will not properly dissolve in most spray solutions that contain fluid fertilizers.

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. However, the physical compatibility of HM-1507 HERBICIDE with tank mix partners should be tested before use. To determine the physical compatibility of HM-1507 HERBICIDE with other products, use a jar test, as described below.

**Note:** Do not use nitrogen solutions or fluid fertilizers as a complete or partial spray carrier when applying HM-1507 HERBICIDE as a postemergence application to soybeans as these combinations may cause crop injury.

### Compatibility Test

A jar test is recommended before tank mixing to ensure compatibility of HM-1507 HERBICIDE with other pesticides. The following test assumes a spray volume of 25 gal./A. For other spray volumes, make appropriate changes in the ingredients.

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

### Test Procedure

1. Add 1.0 pt. of carrier (fertilizer or water) to each of 2 one qt. jars with tight lids. **Note:** Use the same source of water that will be used for the tank mix and conduct the test at the temperature the tank mix will be applied.
2. To one of the jars, add  $\frac{1}{4}$  tsp. or 1.2 milliliters of a compatibility agent approved for this use, such as Compex® or Unite® ( $\frac{1}{4}$  tsp. is equivalent to 2.0 pt./100 gals. spray). Shake or stir gently to mix.
3. To both jars, add the appropriate amount of pesticide(s) in their relative proportions based on recommended label rates. If more than one pesticide is used, add them separately with dry pesticides first, flowables next, and emulsifiable concentrates last. After each addition, shake or stir gently to thoroughly mix.
4. After adding all ingredients, put lids on and tighten, and invert each jar ten times to mix. Let the mixtures stand 15-30 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 ½ the compatibility agent to the fertilizer or water and the other ½ 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.

## APPLICATION DIRECTIONS

### Activation

A small amount of soil moisture is required to activate HM-1507 HERBICIDE following application. In areas of low rainfall, a preemergence application to dry soil should be followed with light irrigation of 0.25-0.5 inch of water. As with many surface-applied herbicides, weed control and crop tolerance may vary with rainfall and/or soil texture. If rainfall or irrigation within 7-10 days does not occur, cultivate uniformly with shallow tilling equipment such as a rotary hoe that will not damage soybeans.

**Ground Application:** Apply HM-1507 HERBICIDE 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. Calibrate the sprayer before use at the beginning of the season. For HM-1507 HERBICIDE tank mixtures with wettable powder or dry flowable formulations, screens and strainers should be no finer than 50-mesh.

### Band Applications

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

$$\frac{\text{Band width in inches}}{\text{Row width in inches}} \times \text{broadcast rate} = \text{amount needed}$$

per acre                      per acre of field

**Chemigation:** Do not apply HM-1507 HERBICIDE through any type of irrigation system.

**Aerial Application:** Apply HM-1507 HERBICIDE in water using a minimum spray volume of 5 gal./A. Avoid application under conditions where uniform coverage cannot be obtained or where excessive spray drift may occur. Make applications at a maximum height of 10 ft. above the soybeans with low-drift nozzles at a maximum pressure of 40 psi.

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

### 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.

1. The distance of the outermost nozzles on the boom must not exceed ¾ 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.

Where states have more stringent regulations, they must be observed.

### Sensitive Areas

HM-1507 HERBICIDE 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, non-target crops) is minimal (e.g., when wind is blowing away from the sensitive areas).

### Cleaning Equipment After Application

Because some crops, other than soybeans, are sensitive to low rates of HM-1507 HERBICIDE, special attention must be given to cleaning equipment before spraying a crop other than those registered for use and on this label. Mix only as much spray solution as needed. Immediately after spraying, clean equipment thoroughly using the following procedure:

1. Flush tank, hoses, boom, and nozzles with clean water.

2. Prepare a cleaning solution of one gal. of household ammonia per 50 gal. of water. Many commercial spray tank cleaners may be used as well. Consult your Helena Agri-Enterprises representative for a partial listing of approved tank cleaners and more information about proper tank cleaning procedures. Do not use chlorine-based cleaners such as Clorox®.
3. When available, use a pressure washer to clean the inside of the spray tank with this solution. Take care to wash all parts of the tank, including the inside top surface. Completely fill the sprayer with the cleaning solution to ensure contact of the cleaning solution with all internal surfaces of the tank and plumbing. Start agitation in the sprayer and thoroughly re-circulate the cleaning solution for **at least 15 minutes**. All visible deposits must be removed from the spraying system.
4. Flush hoses, spray lines, and nozzles for at least one minute with the cleaning solution.
5. Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean water mark. Do not contaminate water when disposing of equipment wash water or rinsate. Do not apply when weather conditions favor drift from target area.
6. Repeat steps 2-5.
7. Remove nozzles, screens, diaphragm check valves and strainers and clean separately in the ammonia cleaning solution after completing the above procedures.
8. Rinse the complete spraying system with clean water.

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

##### **Aerial Applications:**

- Do not release spray at a height greater than 10 ft above the ground or vegetative canopy, unless a greater application height is necessary for pilot safety.
- Applicators are required to select the nozzle and pressure that deliver medium or coarser droplets (ASABE S641).
- For applications prior to the emergence of crops and target weeds, applicators are required to use a Coarse or coarser droplet size (ASABE S572.1).
- If the wind speed is 10 miles per hour or less, applicators must use ½ swath displacement upwind at the downwind edge of the field. When the wind speed is between 11-15 miles per hour, applicators must use ¾ swath displacement upwind at the downwind edge of the field.
- Do not apply when wind speeds exceed 15 mph at the application site. If the wind speed is greater than 10 mph, the boom length must be 65% or less of the wingspan for fixed wing aircraft and 75% or less of the rotor diameter for helicopters. Otherwise, the boom length must be 75% or less of the wingspan for fixed-wing aircraft and 90% or less of the rotor diameter for helicopters.
- Nozzles must be oriented so the spray is directed toward the back of the aircraft.
- Do not apply during temperature inversions.

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

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

##### **Boomless Ground Applications:**

- Applicators are required to select the nozzle and pressure that deliver medium or coarser droplet size (ASABE S572.3) for all applications.
- Do not apply when wind speeds exceed 15 miles per hour at the application site.
- Do not apply during temperature inversions.

#### **SPRAY DRIFT ADVISORIES**

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

#### **IMPORTANCE OF DROPLET SIZE**

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

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

- Volume - Increasing the spray volume so that larger droplets are produced will reduce spray drift. Use the highest practical spray volume for the application. If a greater spray volume is needed, consider using a nozzle with a higher flow rate.
- Pressure - Use the lowest spray pressure recommended for the nozzle to produce the target spray volume and droplet size.
- Spray Nozzle - Use a spray nozzle that is designed for the intended application. Consider using nozzles designed to reduce drift.

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

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

### **BOOM HEIGHT – Ground Boom**

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

### **RELEASE HEIGHT - Aircraft**

Higher release heights increase the potential for spray drift.

### **SHIELDED SPRAYERS**

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

### **TEMPERATURE AND HUMIDITY**

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

### **TEMPERATURE INVERSIONS**

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

### **WIND**

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

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

### **Boomless Ground Applications:**

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

### **Handheld Technology Applications:**

Take precautions to minimize spray drift.

### **PRECAUTIONS**

- Avoid overlapping spray swaths, as injury may occur to rotational crops.
- To prevent off-site movement due to runoff or wind erosion: 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.

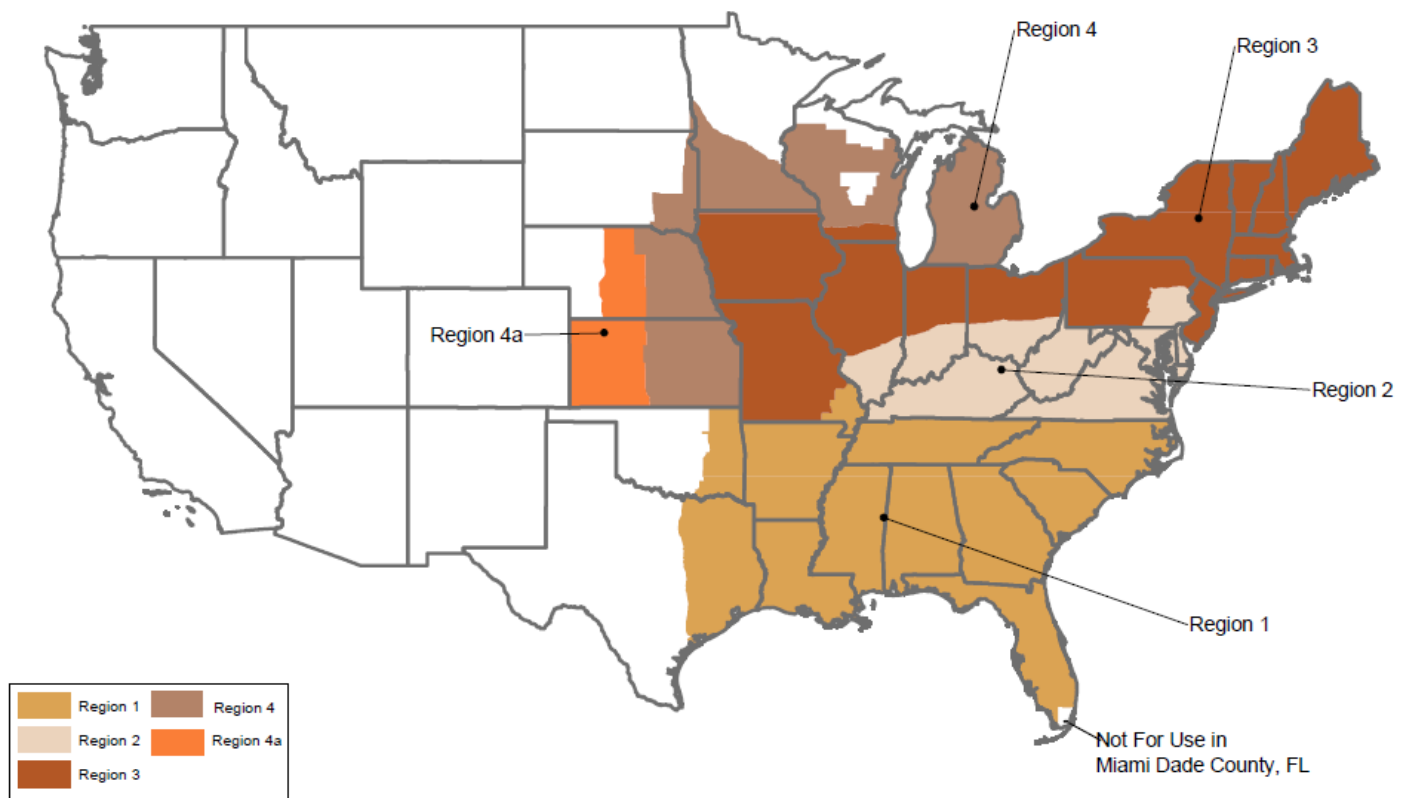
### **RESTRICTIONS**

- Do not graze treated areas or harvest for forage or hay.
- Do not exceed 2.48 lb. a.i./A/crop of S-metolachlor (0.571 gallon/A HM-1507 HERBICIDE Herbicide).
- Do not exceed 2.48 lb a.i./A per year of S-metolachlor from applications of HM-1507 HERBICIDE or any other metolachlor-containing product.

- Do not apply to impervious substrates, such as paved or highly compacted surfaces.
- Do not use tailwater from the first flood or furrow irrigation of treated fields to treat non-target crops, unless at least ½ inch of rainfall has occurred between application and the first irrigation.

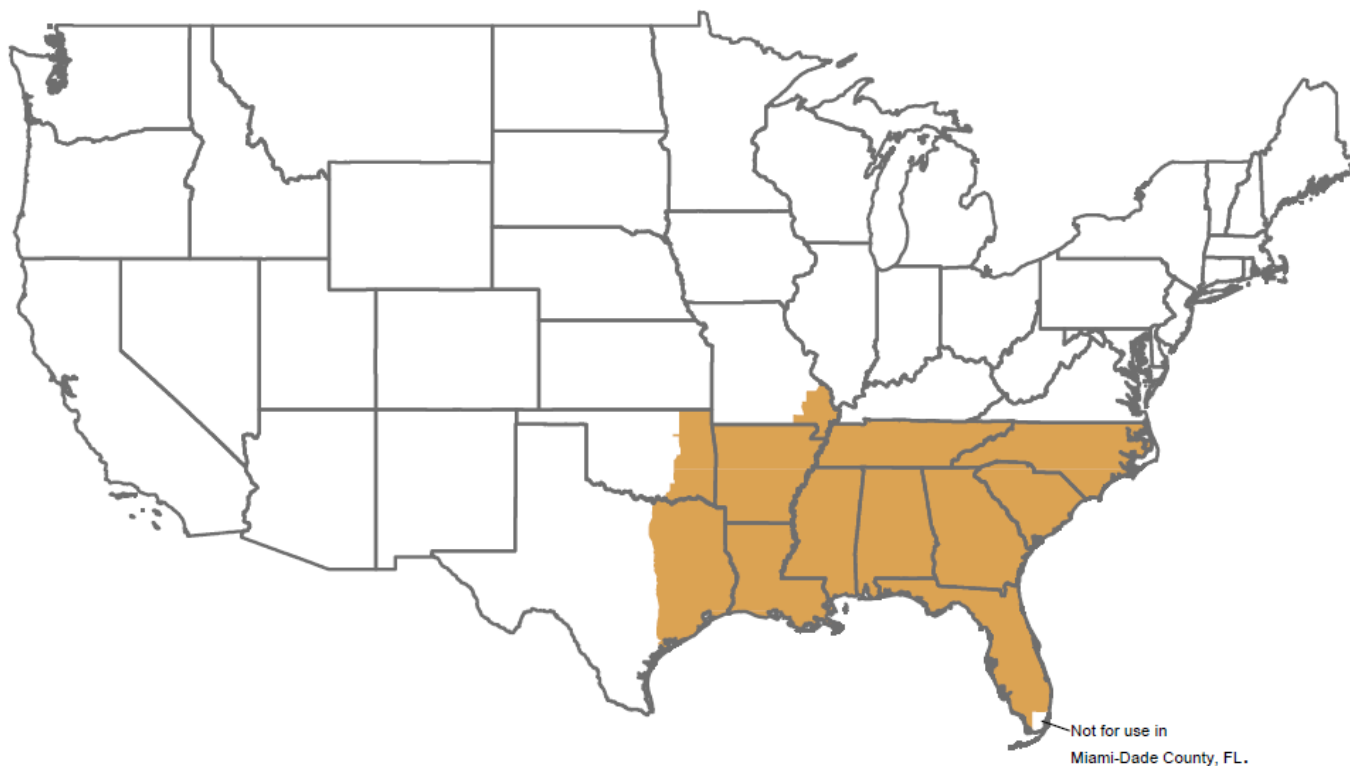
## USE RATE AND WEEDS CONTROLLED

### HM-1507 HERBICIDE REGIONAL USE MAP



## Region 1

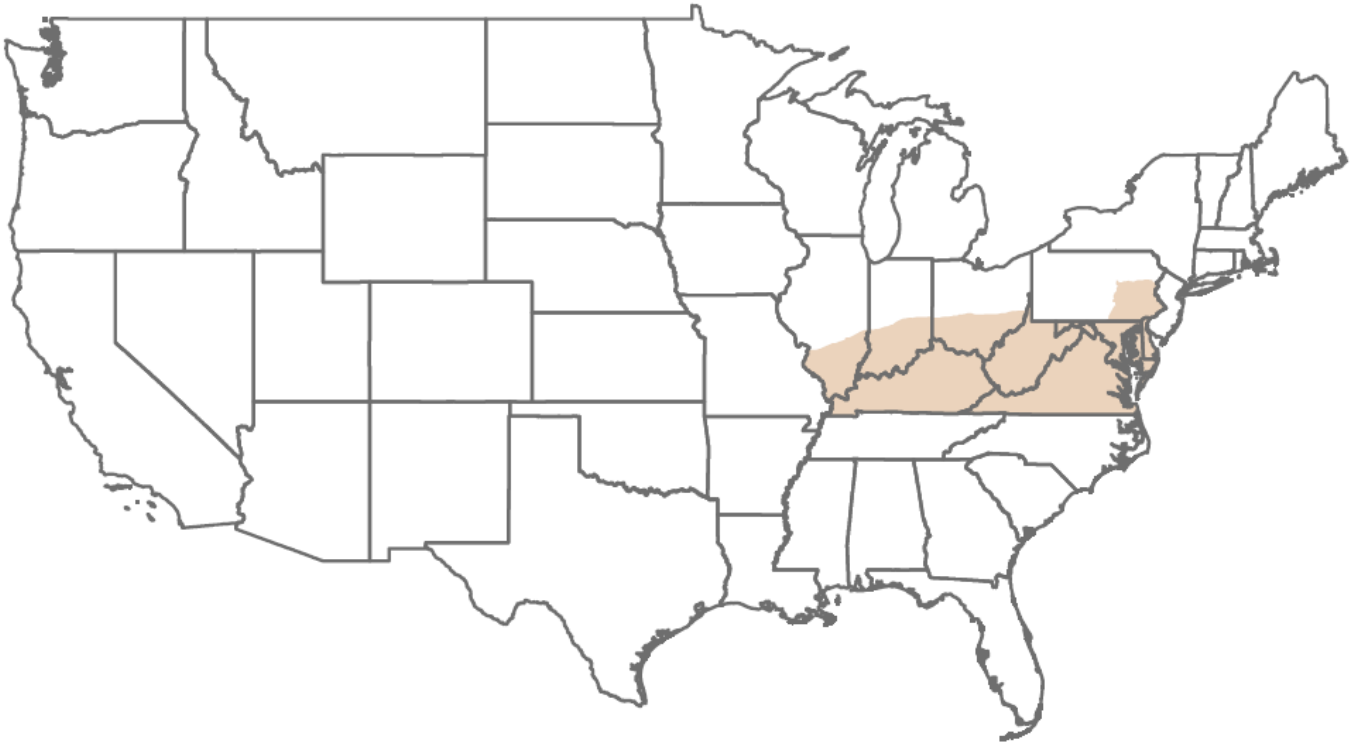
(Maximum Rate 3pt./A per year)



**REGION 1** - Includes the following states or portion of states where HM-1507 HERBICIDE may be applied: Alabama, Arkansas, Florida (except Miami-Dade County), Georgia, Louisiana, Mississippi, Missouri (counties of Bollinger, Butler, Cape Girardeau, Dunklin, Madison, Mississippi, New Madrid, Pemiscot, Perry, Ripley, Scott, Stoddard and Wayne), North Carolina, Oklahoma (East of U.S. Highway 75 and East of Indian Nation Parkway), South Carolina, Tennessee, and Texas (includes area east of U. S. Highway 77 to State Road 239 including all of Calhoun County).

A maximum of 3 pt. of HM-1507 HERBICIDE (or a maximum of 0.375 lb. a.i./A of fomesafen from any product containing fomesafen) may be applied per acre per year in Region 1.

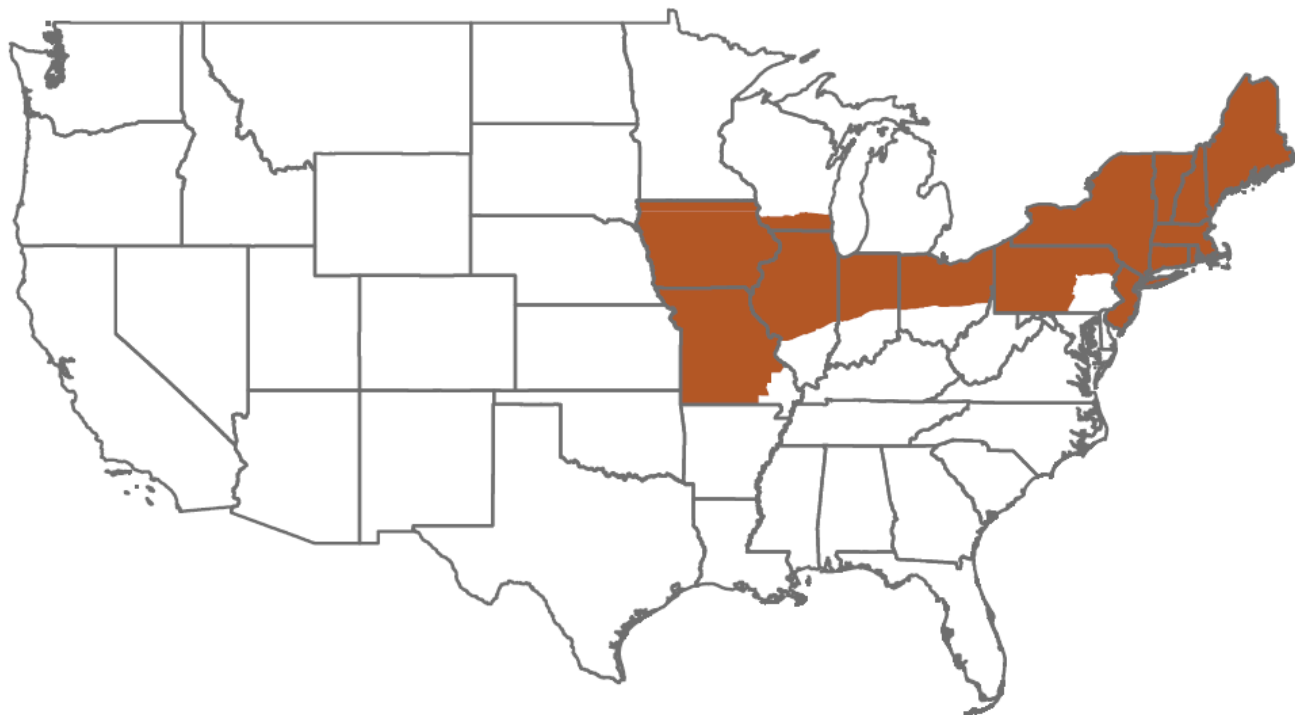
**Region 2**  
(Maximum Rate 3pt./A, alternate years)



**REGION 2** - Includes the following states or portion of states where HM-1507 HERBICIDE may be applied: Delaware, Kentucky, Maryland, Virginia, West Virginia, South of Interstate 70 in the following states: Illinois, Indiana and Ohio and all areas South of Interstate 80 to the intersection of U.S. Highway 15 and East of U.S. Highway 15 and U.S. Highway 522 in Pennsylvania.

A maximum of 3 pt. of HM-1507 HERBICIDE (or a maximum of 0.375 lb. a.i./A of fomesafen from any product containing fomesafen) may be applied per acre in ALTERNATE years in Region 2.

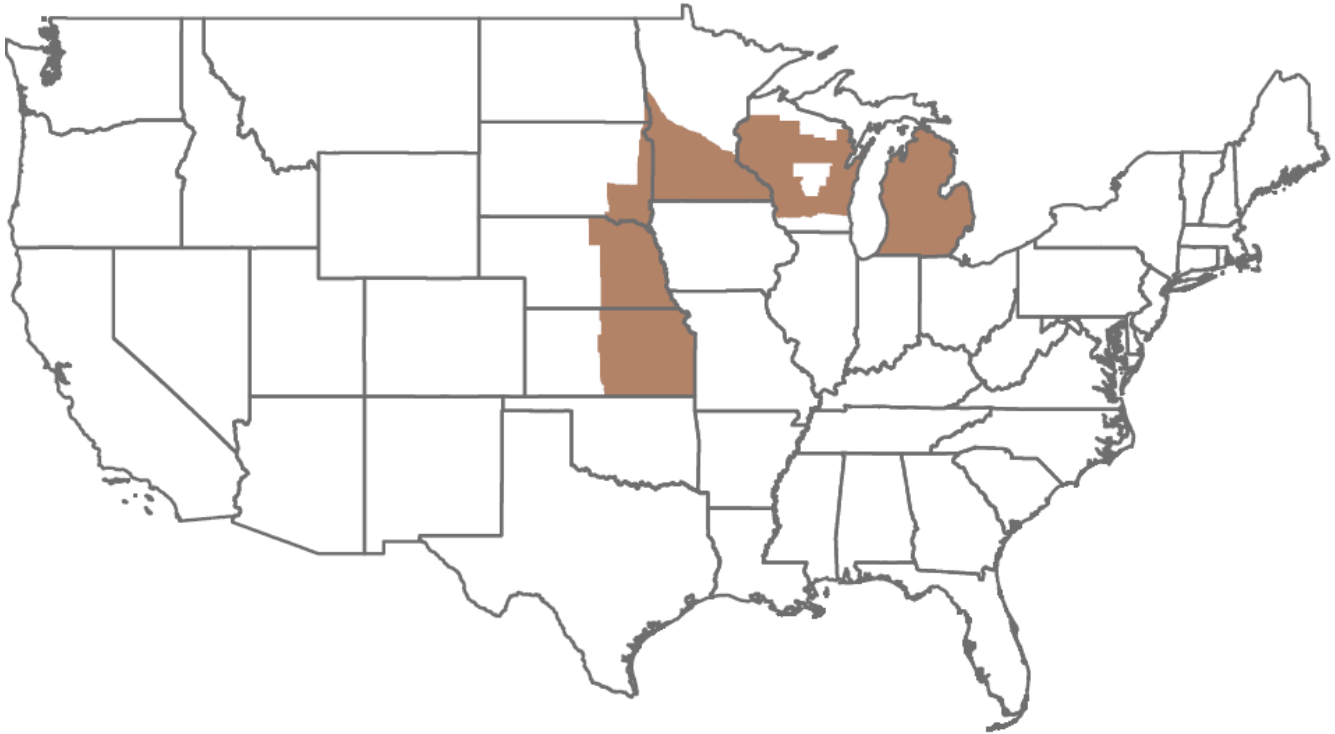
**Region 3**  
(Maximum Rate 2.5 pt./A, alternate years)



**REGION 3** - Includes the following states or portion of states where HM-1507 HERBICIDE may be applied: Connecticut, Iowa, Maine, Massachusetts, Missouri (all counties except for those listed in Region 1), New Hampshire, New Jersey, New York, Pennsylvania (all areas except those listed in Region 2), Rhode Island, Vermont and Wisconsin (South of U.S. Highway 18 between Prairie Du Chien and Madison, and South of Interstate 94 between Madison and Milwaukee), and North of Interstate 70 in following states: Indiana, Illinois and Ohio.

A maximum of 2.5 pt. of HM-1507 HERBICIDE (or a maximum of 0.313 lb. a.i./A of fomesafen from any product containing fomesafen) may be applied per acre in ALTERNATE years in Region 3.

**Region 4**  
(Maximum Rate 2 pt./A, alternate years)

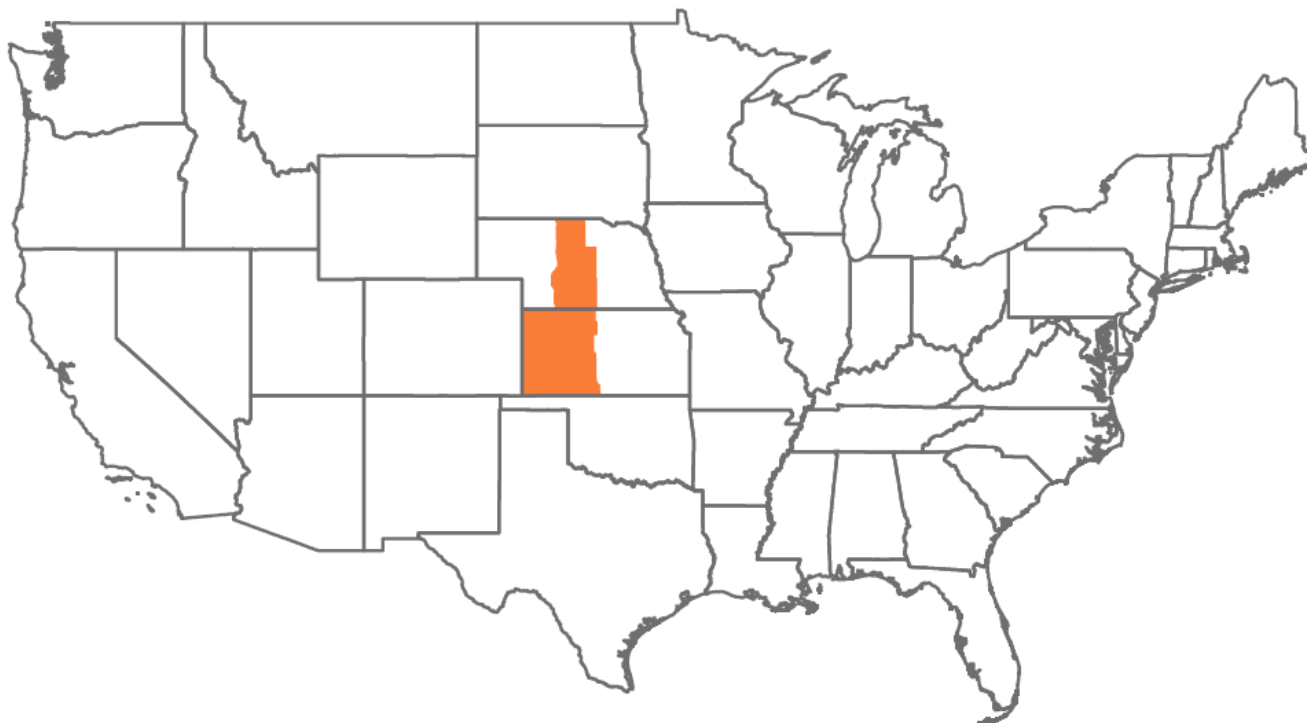


**REGION 4** - Includes the following states or portion of states where HM-1507 HERBICIDE may be applied: Kansas (all counties east of or intersected by U.S. Highway 281), Michigan (Southern Peninsula), Minnesota (all areas South of Interstate 94), Nebraska (all counties east of or intersected by U.S. Highway 281), and Wisconsin (all areas, except those in Region 3, South of Interstate 94 from Minnesota state line to Eau Claire and South of U.S. Highway 29 from Eau Claire to Green Bay plus Barron, Chippewa, Clark, Door, Dunn, Eau Claire, Kewaunee, Marathon, Menominee, Oconto, Polk, Shawano, and St. Croix counties. The following counties are excluded: Adams, Marquette, Portage, Waupaca, Waushara and Wood). North Dakota (all areas East of Interstate 29 from Fargo south to the South Dakota state line). South Dakota (all areas East of Interstate 29 from the North Dakota state line to Watertown, all areas east of Highway 81 from Watertown to Madison and all areas East and South of State Road 34 and U.S. Highway 281 to the Nebraska state line).

A maximum of 2 pt. of HM-1507 HERBICIDE (or a maximum of 0.25 lb. a.i./A of fomesafen from any product containing fomesafen) may be applied per acre in ALTERNATE years in Region 4 (see Regional Use Map).



**Region 4a**  
(Maximum Rate 2 pt./A, alternate years\*)



**REGION 4a** - Includes the following portions of states where HM-1507 HERBICIDE may be applied: Kansas (all areas west of U.S. Highway 281 to the Colorado state line), and Nebraska (all areas that intersect west of U.S. Highway 281 and east of U.S. Highway 83).

A maximum of 2 pt. of HM-1507 HERBICIDE (or a maximum of 0.25 lb. a.i./A of fomesafen from any product containing fomesafen) may be applied per acre in ALTERNATE years in Region 4a. Apply only to soybeans in Region 4a. Do not make a HM-1507 HERBICIDE application later than June 10th. Cumulative rainfall plus overhead irrigation must total 15 inches from the period of HM-1507 HERBICIDE application to soybean crop maturity to allow planting of rotational crops listed in this label (refer to Crop Rotation Intervals Following HM-1507 HERBICIDE Application section). If the soybean crop is lost or the required cumulative rainfall plus irrigation is not received as outlined above, plant only soybeans the following growing season.

### Replanting

If replanting is necessary in fields previously treated with HM-1507 HERBICIDE, the field may be replanted to soybeans. During planting, a minimum of tillage is recommended. Do not apply a second application of HM-1507 HERBICIDE or any product that contains metolachlor, S-metolachlor or fomesafen as crop injury or illegal residues may occur in harvested soybeans.

## Rotational Crops

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

**Table 1: Crop Rotation Intervals Following HM-1507 HERBICIDE Application<sup>1</sup>**

Rotational Crops	Minimum Rotational Interval following HM-1507 HERBICIDE Application
Bean, Dry Bean, Snap Soybean Soybean, Succulent (edamame)	0 months
Cotton Potato	1 month
Bean, Lima Pea, Succulent Peanut	4 months
Barley Oat Rye Wheat	4.5 months
Corn, Field Corn, Seed Corn, Sweet <sup>5</sup> Pepper (transplanted) <sup>1</sup> Popcorn <sup>4</sup> Pumpkin <sup>2</sup> Rice Tomato (transplanted) <sup>1</sup> Watermelon <sup>2</sup>	10 months
Bean, Succulent (other than edamame, snap bean and lima bean) Cantaloupe <sup>2</sup> Cucumber <sup>2</sup> Edible-podded beans and peas not otherwise specified in this table Eggplant Pea, Dried Pepper (direct seeded) Squash, Summer Squash, Winter <sup>2</sup> Sunflower Sweet Potato Tomato (direct seeded)	12 months
Sorghum <sup>3</sup>	18 months
All other crops not listed above	18 Months

<sup>1</sup>4 months in Region 1

<sup>2</sup>8 months in Region 1

<sup>3</sup>10 months in Region 1

<sup>4</sup>12 months in the states of Ohio, Kentucky, Illinois, Indiana, Iowa, Region 4 and Region 4a when applied at 2 pints per acre or more.

<sup>5</sup>18 months in the states of Connecticut, Maine, Massachusetts, New Hampshire, New York, Rhode Island, and Vermont.

Cover crops for soil building or erosion control may be planted any time, but do not graze or harvest for food or feed. Stand reductions may occur in some areas.

Do not graze rotated small grain crops or harvest forage or straw for livestock.

## Cover Crops

A cover crop can be an important tool for the overall farm cropping system. Cover crops are planted for conservation purposes, soil erosion control, soil health improvement, water quality improvement and weed management. A cover crop can be a single crop or a combination of crops, including grasses and/or broadleaf crops. After harvest of a HM-1507 Herbicide treated crop, planting of a cover crop is allowed provided the cover crop is not grazed or fed to livestock nor harvested for food. Terminate the cover crop through natural causes such as frost or intentional termination by herbicide application, crimping, rolling, tillage or cutting. All possible cover crops or cover crop combinations have not been tested for tolerance to this product. Before planting the cover crop, determine the level of tolerance for the intended cover crops by conducting a field bioassay. Refer to the Field Bioassay for Cover Crops section for instructions on how to conduct a field bioassay.

## Field Bioassay for Cover Crops

A field bioassay is a method of determining if herbicide residues are present in the soil at concentrations high enough to adversely affect crop growth. Conduct the field bioassay by planting several strips of the desired cover crop across the field which has been previously treated with HM-1507 Herbicide. Plant the cover crop strips perpendicular to the direction of the product application. Locate the strips so that all the different field conditions are encountered, including differences in field terrain, soil texture, organic matter, pH, and drainage. If the cover crop does not show adverse effects such as crop injury and/or stand reduction, the field can be planted to this cover crop. If injury and/or stand reduction are visible, wait two to four weeks for further herbicide degradation to occur and repeat the bioassay. Alternatively, select a different cover crop and repeat the bioassay. Only plant cover crops that show acceptable tolerance in the field bioassay.

## Rate Ranges

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

HM-1507 Herbicide, when applied as directed, will control or partially control the following weeds.

**Table 2: Weeds Controlled or Partially Controlled\* by HM-1507 HERBICIDE**

<b>Annual Grasses - Control</b>		
Barnyardgrass	Cupgrass, southwestern	Panicum, fall
Crabgrass spp.	Foxtail spp.	Signalgrass, broadleaf
Crowfootgrass	Goosegrass	Witchgrass
Cupgrass, prairie	Junglerice	

<b>Annual Grasses - Partial Control*</b>		
Johnsongrass, seedling	Panicum, Texas	Red rice
Sandbur spp.	Shattercane	

<b>Broadleaves - Control</b>		
Carpetweed	Pepperweed, Virginia	Redweed
Ecliptia	Pigweed spp.	Smartweed, ladysthumb
Galinsoga spp.	Poinsettia, wild	Smartweed, Pennsylvania
Lambsquarters, common	Purslane, common	Spurge, spotted
Nightshade, eastern black	Pusley, Florida	Starbur, bristly
Pennycress, field	Ragweed, common	Waterhemp spp.

<b>Broadleaves – Partial Control*</b>		
Cocklebur, common	Morningglory spp.	Sida, prickly/Teaweed
Horseweed/Marestail	Nightshade, hairy	Sunflower, common
Jimsonweed	Ragweed, giant	Velvetleaf

<b>Sedges – Partial Control*</b>
Nutsedge, yellow

\* Partial control means significant activity, but not always at a level considered acceptable for commercial weed control.

## **COTTON**

### **Post-Directed Application**

Apply HM-1507 HERBICIDE in emerged cotton as a post-directed treatment using precision post-directed, hooded or shielded application equipment to provide complete coverage of emerged weeds.

Apply HM-1507 HERBICIDE at 2-2.33 pints per acre. HM-1507 HERBICIDE will control or partially control certain emerged broadleaf weeds such as hemp sesbania, waterhemp, pigweed species and morningglory species. Apply when broadleaf weeds have 2-4 true leaves in a minimum of 10 gallons spray solution per acre. HM-1507 HERBICIDE should be applied with a non-ionic surfactant at 0.25 to 0.5% v/v or crop oil concentrate at 1% v/v to emerged weeds if applied alone or in a tank mix with products that do not contain a built-in adjuvant. Do not add liquid nitrogen (28% or similar) to HM-1507 HERBICIDE, or HM-1507 HERBICIDE tank mixes in cotton. Refer to Table 2 for weeds controlled or partially controlled with soil activation of HM-1507 HERBICIDE if rainfall or irrigation occurs within 7-10 days after application.

To broaden the weed control spectrum, HM-1507 HERBICIDE may be tank mixed with other labeled postdirected herbicides products with active ingredients such as diuron, DSMA, , MSMA , prometryn, or glyphosate (for use in glyphosate-tolerant cotton only), trifloxysulfuron-sodium. Refer to the tank-mix partner label for precautionary statements, restrictions, rates and a list of weeds controlled.

Cotton foliage is not tolerant to HM-1507 HERBICIDE applications. Avoid contact to cotton foliage and stems that are not fully barked as unacceptable injury will occur. Application equipment should be calibrated (spray pressure, nozzle type and configuration, and orifice size) to avoid fine spray droplets contacting green cotton stems and foliage.

### **Post-Directed Application Timing in Cotton**

HM-1507 HERBICIDE may be applied to cotton at least 6 inches in height through layby as a post-directed application. All post-directed applications should avoid spray contact with any green non-barked parts of the cotton plant or foliage as unacceptable injury will occur. Follow the application timing recommendations below for post-directed applications in cotton.

### **Shielded and Hooded Applications**

Make a precision post-directed HM-1507 HERBICIDE application to the base of the cotton plant avoiding contact with the cotton stem or foliage when cotton is at least 6 inches in height to avoid cotton injury. Use only hooded or shielded spray equipment to apply HM-1507 HERBICIDE in cotton that is at least to 6 inches in height. Adjust nozzles to provide full coverage of emerged target weeds.

### **Layby Applications**

Make a post-directed HM-1507 HERBICIDE application to the base of the cotton plant avoiding contact with any non-barked portion of the cotton plant or foliage. Use precision post-directed equipment or hooded or shielded sprayers on cotton that has developed a minimum of 4 inches of brown bark through layby. Application equipment should be configured to provide full coverage of emerged target weeds.

### **Restrictions - Cotton**

- Do not apply HM-1507 HERBICIDE later than 80 days before harvest.
- Do not apply more than 2.33 pints per acre of HM-1507 HERBICIDE in any year and also adhere to the maximum rate that may be applied in each geographic region (refer to the HM-1507 HERBICIDE Regional Use Map).
- Do not exceed 2.48 lb ai/A per year of S-metolachlor containing products.
- Do not graze or feed forage or fodder from cotton to livestock.

**SOYBEAN**  
**[(NOT REGISTERED FOR USE BY CALIFORNIA)]**

**HM-1507 HERBICIDE FOUNDATION TREATMENT FOR PLANNED TWO-PASS WEED CONTROL PROGRAMS IN ALL TILLAGE SYSTEMS**

HM-1507 HERBICIDE at 2 pt./A may be applied as a preemergence application on all soils to reduce competition from weeds for a period of up to 5 weeks when followed by a planned postemergence herbicide application in conventional and glyphosate-tolerant soybeans. Refer to Table 2 for weeds controlled or partially controlled. For the postemergence herbicide application, consult the selected postemergence herbicide manufacturer's label for weeds controlled, optimum weed size, application rate, additional use directions, precautions, and limitations before use.

**Preplant Surface Applied:** For minimum-tillage or no-tillage systems only, HM-1507 HERBICIDE may be applied at 2 pt./A prior to soybean planting. If weeds are present at the time of treatment, apply HM-1507 HERBICIDE in a tank mixture with a burndown herbicide product such as paraquat or glyphosate brands. To the extent possible, minimize movement of treated soil out of the row or untreated soil to the surface during planting, or weed control will be diminished. Follow with a postemergence herbicide applied at the labeled rate and within the specific growth stage for soybeans and weed spectrum. Recommended postemergence treatments include any product or combination of products labeled to control the specific weeds remaining in the field, including glyphosate (such as, Touchdown or Roundup) brands (for use on glyphosate-tolerant soybeans only).

**Preplant Incorporated:** Apply HM-1507 HERBICIDE at 2 pt./A in conventional tillage systems where incorporation into the top 2 inches of soil occurs within 7 days after application using a finishing disk, harrow, rolling cultivator or similar implement capable of providing uniform 2-inch incorporation. Follow with a postemergence herbicide applied at the labeled rate and within the specific growth stage for soybeans and weed spectrum. Recommended postemergence treatments include any product or combination of products labeled to control the specific weeds remaining in the field, including glyphosate brands (for use on glyphosate-tolerant soybeans only).

**Preemergence:** Apply HM-1507 HERBICIDE at 2 pt./A during planting (behind the planter), or after planting, but before weeds or soybeans emerge in conventional, conservation, or no-till systems. If weeds are present at the time of treatment, apply HM-1507 HERBICIDE in a tank mixture with a burndown herbicide product such as paraquat or glyphosate brands. Follow with a postemergence herbicide applied at the labeled rate and within the specific growth stage for soybeans and weed spectrum. Recommended postemergence treatments include any product or combination of products labeled to control the specific weeds remaining in the field, including glyphosate (such as, Touchdown or Roundup) brands (for use on glyphosate-tolerant soybeans only).

**HM-1507 HERBICIDE IN CONVENTIONAL TILLAGE SYSTEMS**

For conventional tillage systems, HM-1507 HERBICIDE may be applied preplant incorporated or preemergence for control or partial control of weeds listed in Table 2. HM-1507 HERBICIDE may be applied alone, or in tank mix or followed sequentially with postemergence herbicides to broaden the weed control spectrum or control newly emerged weeds. Refer to Table 3 for HM-1507 HERBICIDE rates.

**Preplant Incorporated Application**

Incorporate HM-1507 HERBICIDE uniformly into the top 2 inches of soil within 7 days after application and before planting using a disk, field cultivator, rolling cultivator, or similar implement. Apply HM-1507 HERBICIDE preplant incorporated if furrow irrigation is used or when a period of dry weather after application is expected.

**Preemergence Application**

Apply during planting (behind the planter), or after planting, but before weeds or soybeans emerge. Dry weather following preemergence application of HM-1507 HERBICIDE may reduce effectiveness. If weeds develop, cultivate uniformly with shallow tilling equipment such as a rotary hoe that will not damage soybeans.

**Table 3: HM-1507 HERBICIDE Use Rates - Conventional Tillage Systems (Broadcast Rates)**

Soil Texture	Regions	Pints/A	
		0.5 to 3% Organic Matter	Over 3% Organic Matter
<b>COARSE</b> (Sand, loamy sand, sandy loam)	1, 2	2	2 - 2.25
	3	2	2 - 2.25
	4	2	2
<b>MEDIUM</b> (Loam, silt loam, silt)	1, 2	2.25 - 2.5	2.5 - 2.75
	3	2 - 2.25	2.25 - 2.5
	4	2	2
<b>FINE</b> (Sandy clay loam, sandy clay, silty clay, silty clay loam, clay, clay loam)	1, 2	2.75 - 3	2.75 - 3
	3	2.5*	2.5*
	4	2*	2*

\*If weeds emerge before full canopy closure, apply an appropriate postemergence product.

## HM-1507 HERBICIDE USE RATES FOR REDUCED AND NO-TILL SYSTEMS

### Preplant Surface and Preemergence Application

HM-1507 HERBICIDE may be used in reduced-till and no-till systems. HM-1507 HERBICIDE may be applied up to 15 days before planting or preemergence, but before soybean emergence. For control or partial control of weeds listed in Table 2, use the high end of the rate range for HM-1507 HERBICIDE applications made 15 days before planting. Refer to Table 4 for HM-1507 HERBICIDE rates. If weeds are present at time of application, burndown herbicides may be tank mixed with HM-1507 HERBICIDE (see **Burndown Weed Control** section). HM-1507 HERBICIDE may be followed sequentially with postemergence herbicides to broaden the weed control spectrum or control newly emerged weeds.

**Table 4: HM-1507 HERBICIDE Use Rates for Reduced-Till and No-Till Systems (Broadcast Rates)**

Soil Texture	Regions	Pints/A <sup>1</sup>
<b>COARSE</b> (Sand, loamy sand, sandy loam)	1, 2	2 - 2.25
	3	2 - 2.25
	4	2*
<b>MEDIUM</b> (Loam, silt loam, silt)	1, 2	2.5 - 2.75
	3	2.25 - 2.5
	4	2*
<b>FINE</b> (Sandy clay loam, sandy clay, silty clay, silty clay loam, clay, clay loam)	1, 2	2.75 - 3
	3	2.5*
	4	2*

\*If weeds emerge before full canopy closure, apply an appropriate postemergence product.

<sup>1</sup> Use the lower rate range for low residue level or soils with less than 3% organic matter. Use the higher rate range for high residue level or soils with greater than 3% organic matter.

### BURNDOWN WEED CONTROL

HM-1507 HERBICIDE can be used as part of a burndown herbicide program for control of existing vegetation prior to soybean planting and/or emergence in conservation tillage (reduced-tillage/no-till) systems. HM-1507 HERBICIDE may be tank mixed with 2,4-D low volatile ester (LVE), paraquat, glyphosate, fluzafop-P butyl, fenoxaprop-p-ethyl, sethoxydim, or clethodim for control of emerged weeds prior to soybean planting or crop emergence. Refer to the tank mix product labels for specific rates, use directions, precautions, and limitations.

## HERBICIDES THAT MAY BE APPLIED POSTEMERGENCE FOLLOWING HM-1507 HERBICIDE

If required, application of HM-1507 HERBICIDE alone or in tank mixture may be followed by an application of a postemergence herbicide to provide additional control of certain weeds. Postemergence herbicides such as those listed below may be applied:

Carfentrazone-ethyl	Glyphosate <sup>1</sup>	Glufosinate ammonium <sup>2</sup>
Clethodim	Imazethapyr	Sethoxydim
Quizaflop-p-ethyl	Cloransulam-methyl	Imazamox
Sodium salt of bentazon	Fluazifop-P butyl	Flumiclorac pentyl ester
Chlorimuron-ethyl	Fenoxaprop-p-ethyl	Imazaquin
Lactofen	Thifensulfuron-methyl	Sodium salt of acifluorfen

<sup>1</sup> Use on glyphosate-tolerant soybeans only.

<sup>2</sup> Use on LibertyLink® soybeans only.

Refer to the above information and the individual product labels for use directions, use rates, and special precautions/restrictions.

### Restrictions

- Do not exceed 3.71 lb ai/A/year of S-metolachlor-containing products
- Refer to HM-1507 Herbicide Regional Use Map for the maximum rate of HM-1507 Herbicide (or other fomesafen-containing products) that may be applied in each geographic region.
- Do not apply more than the maximum rates and number of applications of HM-1507 Herbicide to soybeans in each geographic region (refer to the HM-1507 Herbicide Regional Use Map).

### POSTEMERGENCE APPLICATION

HM-1507 HERBICIDE may be applied at 2-2.33 pt./A as an early postemergence application in soybeans. Necrotic spotting, bronzing, leaf crinkling or curling of soybean leaves may occur following postemergence application, but soybeans soon outgrow these effects and develop normally. Refer to Table 2 for weeds controlled or partially controlled with soil activation of HM-1507 HERBICIDE if rainfall or irrigation occurs within 7-10 days after postemergence application. HM-1507 HERBICIDE alone may control or partially control certain emerged broadleaf weeds, however, for broad spectrum control, tank mix HM-1507 HERBICIDE with glyphosate brands in glyphosate-tolerant soybeans only. Add nonionic surfactant (NIS) containing at least 75% surface-active agent, at 0.25% v/v to the final spray volume if HM-1507 HERBICIDE is applied alone or tank mixed with glyphosate products that do not contain a built-in adjuvant. Do not use crop oil concentrate (COC) when applying HM-1507 HERBICIDE postemergence as these spray adjuvants may increase soybean injury.

### Tank Mixtures for Postemergence Applications in Soybeans:

HM-1507 HERBICIDE may be tank mixed with glyphosate herbicides only if applied to glyphosate-tolerant soybeans.

Tank mixes may cause necrotic spotting, bronzing, crinkling or curling of soybean leaves that are present at the time of the postemergence application.

HM-1507 HERBICIDE may be tank mixed with pyrethroid insecticides:

Refer to this label and the labels of the tank mix partners for application methods and timings, precautionary statements, restrictions, rates, and weeds or insects controlled.

### Precautions for Postemergence Application to Soybeans

Apply only in water as the carrier for postemergence applications.

### Restrictions for Postemergence Application to Soybeans

- Do not use HM-1507 HERBICIDE postemergence on soybeans that are under stress including but not limited to that caused by drought, insect, disease, or injury from cultivation.
- Do not exceed 2.33 pt./A of HM-1507 HERBICIDE in a single postemergence application.
- Do not exceed 3.0 pt./A of HM-1507 HERBICIDE per acre per season. Refer to **Regional Use Map** for maximum rate that may be applied within a specific region.
- Do not exceed 2.48 lb a.i./A per year of S-metolachlor from applications of HM-1507 HERBICIDE or any other metolachlor-containing product.
- Do not make postemergence applications at least 90 days before harvest (PHI).
- Do not graze or feed treated forage or hay from soybeans to livestock following a postemergence application of HM-1507 HERBICIDE.

### STORAGE AND DISPOSAL

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

#### Pesticide Storage

This product will freeze at a temperature of approximately 5°F, but upon warming will thaw out to a fully homogeneous product.

#### 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 (less than 5 gallons)

Non-refillable container. Do not reuse or refill this container. Offer for recycling if available. 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 ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or if allowed by state and local authorities by burning. If burned stay out of smoke.

#### Container Handling (Bulk/Mini-Bulk)

Refillable container. Refill this container with HM-1507 HERBICIDE 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 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. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

For minor spills, leaks, etc., follow all precautions indicated on this label and clean up immediately. Take special care to contain spills, leaks, and other accidents to prevent further exposure of facilities and equipment. Absorb spilled product with absorbing materials and dispose of in an approved waste disposal facility. In the event of a major spill, fire, or other emergency, call 1-800-424-9300, day or night.

**CONTAINER IS NOT SAFE FOR FOOD, FEED OR DRINKING WATER!**



**CONDITIONS OF SALE - LIMITED WARRANTY AND LIMITATIONS OF LIABILITY AND REMEDIES**  
**Read the Conditions of Sale - Warranty and Limitations of Liability and Remedies before using this product. If the terms are not acceptable, return the product, unopened, and the full purchase price will be refunded.**

The directions on this label are believed to be reliable and must be followed carefully. Insufficient control of pests and/or injury to the crop to which the product is applied may result from the occurrence of extraordinary or unusual weather conditions or the failure to follow the label directions or good application practices, all of which are beyond the control of Helena Agri-Enterprises, LLC (the "Company") or seller. In addition, failure to follow label directions may cause injury to crops, animals, man or the environment. The Company warrants that this product conforms to the chemical description on the label and is reasonably fit for the purpose referred to in the directions for use subject to the factors noted above which are beyond the control of the Company. To the extent consistent with applicable law, The Company makes no other warranties or representations of any kind, express or implied, concerning the product, including no implied warranty of merchantability or fitness for any particular purpose, and no such warranty shall be implied by law.

The exclusive remedy against the Company for any cause of action relating to the handling or use of this product shall be limited to, at Helena Agri-Enterprises, LLC's election, one of the following:

1. Refund of the purchase price paid by buyer or user for product bought, or
2. Replacement of the product used

To the extent consistent with applicable law, the Company shall not be liable and any and all claims against the Company are waived for special, indirect, incidental, or consequential damages or expense of any nature, including, but not limited to, loss of profits or income. The Company and the seller offer this product and the buyer and user accept it, subject to the foregoing conditions of sale and limitation of warranty, liability and remedies.

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