SOYBEANS - POSTEMERGENCE APPLICATION

General Information

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. When tank mixtures are recommended, branded products acceptable for tank mixes are listed. Additionally, generic equivalents of these branded products may be used as long as the conditions listed below as well as those on the tank mix partner are followed.

FOR ALL TANK MIXTURES: It is the pesticide user’s responsibility to ensure that all products in the listed mixtures are registered for the intended use. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

When an adjuvant is to be used with this product, Helm Agro suggests the use of a Chemical Producers and Distributors Association (CPDA) certified adjuvant.

HELMET is a selective herbicide recommended 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 corn - all types, cotton, grain or forage sorghum, peanuts, pod crops, potatoes, safflower and soybeans. HELMET is also recommended as a postemergence treatment in selected crops.

Note: 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 non-target areas. To prevent off-site movement due to runoff or 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 tail-water from the first flood or furrow irrigation of treated fields to treat non-target crops unless at least 1/2 inch of rainfall has occurred between application and the first irrigation.
Where directions specify a HELMET tank mixture with AAtrex formulations, other brands of atrazine may be used. Follow the rates, recommendations, and limitations on the AAtrex or respective atrazine product label, if other brands of atrazine are used.

Note: 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.

When HELMET is incorporated, DO NOT exceed the depth of incorporation with supplemental tillage or efficacy will be reduced.

Dry weather following preemergence application of HELMET 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 poor to good, or consistent control at a level below that generally considered acceptable for commercial weed control.

Precaution: Injury may occur to crops (other than corn) following the use of HELMET under abnormally high soil moisture conditions during early development of the crop.

RESISTANCE MANAGEMENT
HELMET is a Group 15 Herbicide containing the active ingredient metolachlor. To prevent the risk of weeds developing resistance to HELMET, always apply this product at the labeled rates and in accordance with the use directions. DO NOT use less than labeled rates alone or in tank mixtures. DO NOT use reduced rates of the tank mix partner.

The development of herbicide resistance is well understood, however it is not easily predicted. When herbicides that affect the same biological site of action are used repeatedly over several years to control the same weed species in the same field, naturally-occurring resistant biotypes may survive a correctly applied herbicide treatment, propagate, and become dominant in that field. Adequate control of these resistant weed biotypes cannot be expected. If weed control is unsatisfactory, it may be necessary to retreat the problem area using a product affecting a different site of action.

Herbicides should be used in conjunction with the resistance management strategies in the area to better manage herbicide resistance through delaying the proliferation and possible dominance of herbicide resistant weed biotypes. It may be necessary to change cultural practices within and between crop seasons such as
using a combination of tillage, retreatment, tank-mix partners and/or sequential herbicide applications that have a different site of action. Weed escapes that are allowed to go to seed will promote the spread of resistant biotypes. It is advisable to keep accurate records of pesticides applied to individual fields to help obtain information on the spread and dispersal of resistant biotypes. Consult your agricultural dealer, consultant, applicator, and/or appropriate state agricultural extension service representative for specific alternative cultural practices or herbicide recommendations available in your area.

If herbicide resistance should develop in the area to Group 15 herbicides, this product used alone may not continue to provide sufficient levels of weed control. If the reduced levels of control cannot be attributed to improper application techniques, improper use rates, improper application timing, unfavorable weather conditions or abnormally high weed pressure, a resistant strain of weeds may have developed. To reduce the potential for weed resistance use this product in a rotation program with other classes of chemistry and modes of action. For optimum performance, scout fields carefully and begin applications when weeds are smaller rather than larger. If resistance is suspected, contact local or State agricultural advisors.

1) SOIL TEXTURES AND HERBICIDE RATES
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.

Note: HELMET may be applied preemergence alone or in tankmixes with partners specified on this label, following preplant incorporated herbicides when used according to their label recommendations, 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.

2) APPLICATION PROCEDURES
APPLICATION TIMING
HELMET alone or in some tank mixtures with other labeled herbicides may be applied for weed control in certain crops at various times – preplant, preplant incorporated, preemergence and postemergence. Refer to the given crop section of
the label to determine if application timings listed below are recommended.

a) Preplant Surface-Applied: For minimum-tillage or no-tillage systems only, HELMET alone and some HELMET tank mixtures may be applied up to 45 days before planting certain crops. For applications made 30 – 45 days before planting, use split applications with 2/3 the labeled broadcast rate for the crop and soil texture applied initially and the remaining 1/3 at planting. For applications made less than 30 days before planting, application may be made either as a split or a single application. Refer to individual crop to determine if early preplant surface application is recommended. When weeds are present at the time of treatment, apply in a tank mixture combination with a contact herbicide such as 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.

b) Preplant Incorporated: Apply HELMET to soil surface 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. When furrow irrigation will be used or when a period of dry weather is expected after application use a preplant incorporated application. If crop will be planted on beds, apply and incorporate HELMET after bed formation, unless specified otherwise.

c) Preemergence: Apply HELMET during planting (behind the planter) or after planting but before weeds or crops emerge.

3) SPECIAL APPLICATION PROCEDURES

a) Preplant Incorporated: CA Only (Safflower, Pod Crops):
Broadcast HELMET to the soil surface and thoroughly incorporate with a disk or similar implement set to till 4-6 inches deep. Till the soil in 2 different directions (cross-till) for more thorough incorporation. Crops may be planted on flat surface or on beds. Caution should be used when forming the beds that only soil from the HELMET treated zone is used - untreated soil should not be brought to soil surface or weed control will be decreased. If the application is made to preformed beds, incorporate HELMET with tillage implement set to till 2-4 inches deep. Care should be taken during tilling to keep the treated/tilled soil on the beds. Preemergence: Apply HELMET after planting. Water with sprinkler or flood irrigation within 7-10 days if at least ½ - 1 inch of rainfall does not occur (1/2 inch on course textured soil and 1 inch on fine textured soil).

b) Fall Application (Only in IA, MN, ND, SD, WI, North of Route 20 in the state of NE, and North of Route 136 in the state of IL): Use on medium and fine soils with greater than 2.5% organic matter that will be planted to soybeans the next spring.
Ground may be tilled before or after application.

Restrictions:
- DO NOT apply to frozen ground.
- DO NOT exceed a 2- to 3-inch incorporation depth if tilled after treatment.
- 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 or illegal residues may result.

c) Ground Application: Apply HELMET alone or in tank mixtures by ground equipment in a minimum of 10 gals. of spray mixture per acre unless otherwise specified.
Use sprayers that provide accurate and uniform application. For HELMET 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:
Bandwidth in inches X broadcast rate per acre = amount needed per acre
Row width in inches
Note: For information on applying in lower volumes of carrier, see Low Carrier Application in Appendix B. For application by air or through center pivot systems, see Appendices C and D. Appendix C includes Aerial Drift Management and Aerial Drift Reduction Advisory sections. For information on impregnating dry fertilizer, see Appendix E.
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Limitations, Restrictions, and Exceptions

Postemergence Application
From emergence up through the 5th trifoliate leaf stage
Apply Helmet at 1.0 – 1.33 pts./A to soybeans as a postemergence application from emergence up through the 5th trifoliate leaf stage. Apply Helmet to a weed-free surface as Helmet will not control emerged weeds. If weeds are present at the time of application, Helmet may be tankmixed with products that provide postemergence control of the emerged weeds.

Restrictions:
- DO NOT apply within 90 days of harvest or illegal residues may result.
- DO NOT apply more than 1.33 pts./A of Helmet postemergence or illegal residues may result.
- DO NOT graze or feed treated forage or hay from soybeans to livestock following a postemergence application of Helmet.
- DO NOT apply a postemergence application of Helmet if a preplant surface, preplant incorporated or preemergence application of metolachlor products has already been applied.

Method

**Soil application**

Pre-Harvest Interval

90 days

Rates

**field_rates 0**

Restricted Entry Interval

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.

Timings

**Postemergence (Crop)**