HELMET SPC

Group 15 Herbicide

Herbicide for weed control in cotton, peanuts, pod crops, potatoes, safflower, grain or forage sorghum, soybeans and tomatoes

ACTIVE INGREDIENT: Metolachlor: 2-chloro-N-(2-ethyl-6-methylphenyl)-N-(2-methoxy-1-methylethyl)acetamide........................................ 86.4%

INERT INGREDIENTS: .............................................................................................................. 13.6%

TOTAL: .................................................................................................................................... 100.0%

HELMET SPC contains 8.0 lbs. of active ingredient per gallon.

EPA Reg. No. 74530-73
EPA Est. No. 39578-TX-001

KEEP OUT OF REACH OF CHILDREN

CAUTION

See label booklet for First Aid, Precautionary Statements and Directions for Use including Storage and Disposal.
HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION

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

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Some materials that are chemical resistant to this product are listed below. If you want more options, follow the instructions for Category H on an EPA chemical resistance category selection chart.

Applicators and other handlers must wear:
• Coveralls over short-sleeved shirt and short pants
• Chemical-resistant gloves such as barrier laminate or Viton > 14mils
• Chemical-resistant footwear plus socks
• Chemical-resistant headgear for overhead exposure, and
• Chemical-resistant apron when cleaning equipment, mixing or loading

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

ENGINEERING CONTROLS STATEMENT

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

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

ENVIRONMENTAL HAZARDS

Do not apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwater or rinsewater.

Ground Water Advisory:
This chemical is known to leach through soil into ground water under certain conditions as a result of agricultural use. Use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in ground water contamination.

Surface Water Advisory:
Metolachlor can contaminate surface water through ground spray drift. Under some conditions, metolachlor 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 draining or wet soils with readily visible slopes toward adjacent surface waters, frequently flooded areas, areas over-laying extremely shallow ground water, 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 over-laying tile drainage systems that drain to surface water.
Precaution:

- Acceptable for commercial weed control.
- Dry weather following preemergence application of HELMET SPC or a tank mixture may reduce effectiveness. Cultivate if weeds develop.
- The use of this label to deviate from state use regulations.
- 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 federal law to use this product in a manner inconsistent with its label.
- 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 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 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.
  4. When HELMET SPC is incorporated, DO NOT exceed the depth of incorporation with supplemental tillage or efficacy will be reduced. Where directions specify a HELMET SPC 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.

**DIRECTIONS FOR USE**

This product is intended for use in weed control in cotton, peanuts, pod crops, potatoes, safflower, sorghum (grain or forage), soybeans, and tomatoes.

**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:

- Chemical-resistant gloves such as barrier laminate or Viton > 14mils
- Overalls
- Capes 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.

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.

PRODUCT INFORMATION

- 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 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 SPC 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.

- 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.

- Dry weather following preemergence application of HELMET SPC 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 following the use of HELMET SPC under abnormally high soil moisture conditions during early development of the crop.
RESISTANCE MANAGEMENT

HELMET SPC is a GROUP 15 Herbicide containing the active ingredient metolachlor.

To prevent the risk of weeds developing resistance to HELMET SPC, always apply this product at the recommended rates and in accordance with the use directions. Do not use less than recommended label 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, rotation, 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.

MIXING INSTRUCTIONS

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

Tank Mixtures: Fill the spray tank 1/4 full with water, and start agitation; add 2,4-D, AAtrex, Balan, Banvel, Bisagran, Butyrac, Canopy, Capamol 4L, Command, Cotoran, Eptam, Lorox, Markman, MITMA, Prinect, Prowl, Pursuit, AAtrex + Prinect, Scepter, Sonalan, Sonalan or Treflan, and allow it to become dispersed; then add HELMET SPC, then add Gramoxone Extra, Landmaster BW, or Roundup if these products are being used; and finally the rest of the water. For tank mixtures with AAtrex, Banvel, Canopy, Capamol 4L, Command, Cotoran*, Eptam, Lorox, Markman, Prinect, Prowl* *, Pursuit, AAtrex + Prinect, Scepter, Sonalan, or Treflan, fluid fertilizers may replace all or part of the water as carrier, except in the AAtrex postemergence and the Banvel postemergence tank mixes. For tank mixtures with AAtrex, see additional mixing instructions on the AAtrex 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 Cotoran, and with AAtrex or Prinect + Prowl under the appropriate tank mixture section.

For directions on how to conduct a compatibility test, see Appendix A.

1) 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:

<table>
<thead>
<tr>
<th>Coarse</th>
<th>Medium</th>
<th>Fine</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sand</td>
<td>Loam</td>
<td>Sandy clay loam</td>
</tr>
<tr>
<td>Loamy sand</td>
<td>Silt loam</td>
<td>Sandy clay</td>
</tr>
<tr>
<td>Sandy loam</td>
<td>Silt</td>
<td>Silty clay loam</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Silty clay</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Clay loam</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Clay</td>
</tr>
</tbody>
</table>

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 SPC 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 SPC 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, pre-emergence 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- or no-tillage systems only, HELMET SPC alone and some HELMET SPC 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 recommended 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 (for example, Gramoxone Extra or Roundup). 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 SPC 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 SPC after bed formation, unless specified otherwise.

c) Preemergence: Apply HELMET SPC 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 SPC to the soil 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 SPC 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 SPC 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.

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):
DO NOT apply to frozen ground. 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. DO NOT exceed a 2- to 3-inch incorporation depth if tilled after treatment.

Restriction: 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 SPC 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 SPC 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.

HELMET SPC APPLIED ALONE

<table>
<thead>
<tr>
<th>Weeds Controlled</th>
<th>Barnyardgrass (watergrass)</th>
<th>Florida pusley</th>
<th>red rice</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>brosly foxtail</td>
<td>foxtail millet</td>
<td>robust foxtails (purple, white)</td>
</tr>
<tr>
<td></td>
<td>carpetweed</td>
<td>gallsgras</td>
<td>signalgrass (Brachiaria)</td>
</tr>
<tr>
<td></td>
<td>common waterhemp</td>
<td>giant foxtail</td>
<td>southwestern cupgrass</td>
</tr>
<tr>
<td></td>
<td>crabgrass</td>
<td>goosgrass</td>
<td>tail waterhemp</td>
</tr>
<tr>
<td></td>
<td>crowfootgrass</td>
<td>green foxtail</td>
<td>witchgrass</td>
</tr>
<tr>
<td></td>
<td>Eastern black nightshade</td>
<td>pigeonweed</td>
<td>yellow foxtail</td>
</tr>
<tr>
<td></td>
<td>fall panicum</td>
<td>prairie cupgrass</td>
<td>yellow nutesedge</td>
</tr>
</tbody>
</table>

Weeds Partially Controlled*

<table>
<thead>
<tr>
<th>common purslane</th>
<th>sandbur</th>
<th>volunteer sorgham</th>
</tr>
</thead>
<tbody>
<tr>
<td>eclipta</td>
<td>seeding johnsongrass</td>
<td>wild proso millet</td>
</tr>
<tr>
<td>Florida beggarweed**</td>
<td>shattercane</td>
<td>woolly cupgrass</td>
</tr>
<tr>
<td>hairy nightshade</td>
<td>Texas panicum***</td>
<td></td>
</tr>
</tbody>
</table>

*See Product Information section. Control of these weeds can be erratic due partially to variable weather conditions.

Control may be improved by following these suggested procedures:

- Thoroughly, till moist soil to destroy germinating and emerged weeds. IF HELMET SPC is to be applied preplant incorporated, this tillage may be used to incorporate HELMET SPC as long as uniform 2-inch incorporation is achieved as recommended under Application Procedures.
- Plant crop into moist soil immediately after tillage. IF HELMET SPC is to be used preemergence, apply at planting or immediately after planting.
- If available, sprinkler irrigate within 2 days after application. Apply 1/2 - 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 HELMET SPC.
- 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 (2 inches) is recommended as soon as weeds emerge.

**For partial control of this weed, use a minimum of 2 pts./A and apply preemergence.

***For partial control of this weed, use a minimum of 2 pts./A and apply through a center pivot irrigation system.
HELMET SPC ALONE

Restrictions:

ROTTATIONAL CROPS

COTTON

DO NOT use on sands and loamy sand.

To avoid injury to rotational alfalfa or clover:

Additional statements/restrictions.

Apply HELMET SPC preemergence only in Area 1 (AR, LA, MS, TN, and Bootheel of MO) at the rate of 0.75-1.0 pt./A on sandy loams, 1.0-1.33 pts./A on medium soils, or 1.33 pts./A on fine soils.

3. Preemergence:

Apply HELMET SPC at 0.75-1.33 pts./A when cotton is 3-12 inches tall.

4. Postemergence:

Apply HELMET SPC at 1.0-1.33 pts./A when cotton is 3-6 inches tall but before August 1.

Apply HELMET SPC at 1.0-1.33 pts./A when cotton is 3-12 inches tall but before August 1.

5. Multiple Applications:

Use a weed control program with multiple applications of HELMET SPC when weed pressure is heavy, difficult to control species are expected, or if re-infestation may occur. 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 HELMET SPC will not control emerged weeds. Cotton must be at least 3 inches tall at the postemergence timing. Apply HELMET SPC postemergence over a previous preplant or preemergence HELMET SPC application as shown in Table 1.
In sprinkler-irrigated areas, apply HELMET SPC and sprinkle irrigate after application with ½ - 1 inch of water (½ inch on coarse-textured soils to 1 inch on fine-textured soils) to incorporate HELMET SPC. In furrow-irrigated areas, apply HELMET SPC, incorporate with a rolling cultivator or similar implement that provides uniform shallow incorporation (2 inches or less) - then irrigate. In non-irrigated areas, if at least ½ 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 HELMET SPC.

Restrictions:
For best yellow nutedge control and seedling johnsongrass suppression, apply HELMET SPC 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:

- Do not apply more than a total of 2.0 pts./A on coarse soils or 4 pts./A of HELMET SPC on medium and fine soils during a growing season. HELMET SPC treatments may be applied over previous registered herbicide treatments.

- Do NOT apply HELMET SPC on sand or loamy sand soils.
- Do NOT apply HELMET SPC in areas where water is likely to “pond” over the bed.
- To avoid concentration of HELMET SPC in the seed furrow, DO NOT make broadcast applications 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 HELMET SPC 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 recommended in the cotton section of this label or injury may occur.
- DO NOT apply over the top in fluid fertilizer or any other adjuvant, surfactant, oil, or other pesticide not recommended in the cotton section of this label or injury may occur.
- DO NOT use in Gaines County, TX.
- DO NOT graze or feed forage or fodder from cotton to livestock or illegal residues may result.

HELMET SPC Tank Mixtures

1) Tank Mixture with Caparol 4L
Tank mixtures of HELMET SPC + Caparol 4L may be applied preplant incorporated or preemergence in water or fluid fertilizer. When fluid fertilizer is used as a carrier for HELMET SPC, either alone or in combination with Caparol 4L, mix only the amount that will be sprayed in one operation. DO NOT allow these mixtures to stand without agitation. Only water may be used as a carrier for postemergence directed application.

In addition to those weeds controlled by HELMET SPC alone, HELMET SPC + Caparol 4L, applied preplant incorporated or preemergence, also controls the following weeds:

- annual morningglory
- crotalaria
- cocklebur*
- coffeeweed*
- groundcherry
- hairy night shade
- prickly sida (teaweed)
- purslane
- ragweed
- wild oats
- wild mustard

*shallow-germinating seedlings

As a postemergence directed application, HELMET SPC provides residual control of weed species on its label and Caparol 4L provides postemergence control and residual control of weeds on its label. HELMET SPC will not control emerged weeds.

Preplant Incorporated or Preemergence: Apply HELMET SPC + Caparol 4L, either preplant incorporated or preemergence, using the appropriate rate from Table 2. Cotton should be planted 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 2: HELMET SPC + Caparol 4L – Cotton (NM, OK, TX)

<table>
<thead>
<tr>
<th>USE AREAS</th>
<th>SOIL TEXTURE</th>
<th>HELMET SPC</th>
<th>Caparol 4L</th>
</tr>
</thead>
<tbody>
<tr>
<td>All</td>
<td>Sand, loamy sand</td>
<td>DO NOT USE</td>
<td></td>
</tr>
<tr>
<td>OK and Blacklands and Gulf Coast of TX</td>
<td>Loams</td>
<td>0.85 - 1.33 pts.</td>
<td>2.4 pts.</td>
</tr>
<tr>
<td></td>
<td>Clays</td>
<td>1.33 pts.</td>
<td>4.8 pts.</td>
</tr>
<tr>
<td>Rio Grande Valley of TX</td>
<td>Loams</td>
<td>0.85 - 1.33 pts.</td>
<td>3.2 pts.</td>
</tr>
<tr>
<td></td>
<td>Clays</td>
<td>1.33 pts.</td>
<td>4.8 pts.</td>
</tr>
<tr>
<td>NM, High Plains, Rolling Plains, Edwards Plateau of TX and Southwest TX</td>
<td>Loams</td>
<td>0.85 - 1.33 pts.</td>
<td>2.4 pts.</td>
</tr>
<tr>
<td></td>
<td>Sandy loam</td>
<td>0.85 - 1.33 pts.</td>
<td>1.6 pts.</td>
</tr>
<tr>
<td></td>
<td>Sandy clay loams</td>
<td>1.33 pts.</td>
<td>2.4 pts.</td>
</tr>
<tr>
<td></td>
<td>Other clay loams</td>
<td>1.33 pts.</td>
<td>3.2 pts.</td>
</tr>
</tbody>
</table>

Postemergence Directed (AR, AZ, CA, LA, MO, MS, NM, OK, TN and TX):

Tank mix HELMET SPC with Caparol 4L in water and apply postemergence directed in cotton for control of emerged weeds listed on the Caparol 4L label and residual preemergence control of weeds controlled by HELMET SPC and Caparol 4L. Also, application may be made after cultivation for residual preemergence control. These treatments may be applied over previous registered treatments, including HELMET SPC, provided the maximum label rate of any product is not exceeded. DO NOT apply over-the-top of cotton or injury may occur.

Apply HELMET SPC + Caparol 4L tank mixture in a minimum of 20 gals. of spray volume per acre. Follow all directions, limitation s, and precautions on the Caparol 4L label when Caparol is applied as a postemergence-directed application. Refer to the directions, limitations, and precautions for use of HELMET SPC under the Cotton-HELMET SPC Alone-Postemergence section.

Restrictions:
- DO NOT make broadcast applications of HELMET SPC + Caparol 4L to cotton planted in furrows more than 2 inches deep in order to avoid concentration in the seed furrow. Band applications may be made to cotton planted in furrows deeper than 2 inches, but to avoid crop injury band width should not exceed the width of the bottom of the furrow.
- DO NOT apply on sand or loamy sand soils.
- DO NOT apply HELMET SPC in areas where water is likely to “pond” over the bed.
- DO NOT apply in areas of newly leveled fields, or in areas of excess salt.
- DO NOT apply to glandless cotton varieties.
- DO NOT apply on Tulsika silt loam.
- DO NOT use in Gaines County, TX.
- DO NOT graze or feed forage or fodder from cotton to livestock or illegal residues may result.
- Refer to the Caparol 4L label for further instructions and limitations.

2) Tank Mixture with Cotoran DF

Tank mixture HELMET SPC + Cotoran DF may be applied preemergence for control of weeds controlled by HELMET SPC alone and those listed on the Cotoran DF label. Additionally, this combination will control spotted spurge, hyssop spurge, nodding spurge, and prostrate spurge. Apply to soil surface at planting or soon after planting but before weeds or crops emerge, using the appropriate rates from Table 3. The tank mixture may be applied postemergence to cotton but preemergence to weeds, or it may be applied postemergence to both cotton and broadleaf weeds for control of weeds on the Cotoran label. Apply as a directed, semi-directed, or over-the-top spray. HELMET SPC will not control emerged weeds but will provide preemergence control of species on its label.

Mixing Instructions: Incomibility can occur when tank mixing HELMET SPC and Cotoran DF. To help overcome this condition mix as follows:
- Fill the spray tank ¼ full with water or fluid fertilizer.
- Start agitation.
- Add Cotoran DF and allow it to become dispersed.
- Add X-77 at 0.5% volume/volume final spray (4 pts./100 gals.).
- Add the HELMET SPC.
- Finish filling tank with 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 3: HELMET SPC + Cotoran DF-Cotton

<table>
<thead>
<tr>
<th>SOIL TEXTURE</th>
<th>HELMET SPC</th>
<th>Cotoran DF***</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sand, loamy sand</td>
<td>DO NOT USE</td>
<td></td>
</tr>
<tr>
<td>Sandy loam</td>
<td>0.75 - 1.0 pts.</td>
<td>1.2 lbs.</td>
</tr>
<tr>
<td>Loams, silts, silty loam</td>
<td>1.0 - 1.33 pts.</td>
<td>1.2 - 1.9 lbs.</td>
</tr>
<tr>
<td>Fine soil</td>
<td>1.0 - 1.33 pts.</td>
<td>1.9 - 2.4 lbs.</td>
</tr>
</tbody>
</table>

*Area 1 = AR, LA, MO Bootheel, MS and TN
**Area 2 = Eastern OK, Gulf Coast, Rio Grande Valley, and Eastern TX
***When using Cotoran 4L use equivalent rates. Multiply lbs. of Cotoran DF by 1.7 to get pts. of Cotoran 4L.
Apply HELMET SPC, either preplant incorporated, postplant incorporated, preemergence, or lay-by, using the appropriate rate specified below:

**HELMET SPC ALONE**

**PEANUTS**

Apply as directed, semi-directed, or over the top spray (over the top application may cause cotton injury). HELMET SPC will not control emerged weeds but will provide preemergence control of species on its label. Apply when cotton is in the 3- to 12-inch stage. Where rate ranges are given for Cotoran DF, 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 HELMET SPC, provided the maximum label rate of any product is not exceeded.

**Restrictions:**
- **DO NOT** apply HELMET SPC + Cotoran on sand or loamy sand soils.
- **DO NOT** apply HELMET SPC in areas where water is likely to "pond" over the bed.
- **DO NOT** make broadcast applications of HELMET SPC + Cotoran to cotton planted in furrows more than 2 inches deep in order to avoid concentration in the seed furrow. Band applications may be made to cotton planted in furrows deeper than 2 inches, but to avoid crop injury band width should not exceed the width of the bottom of the furrow.
- The use of Cotoran following the use of a systemic insecticide at planting may result in crop injury.
- **DO NOT** use on Tanka silt loam, or crop injury may occur.
- **DO NOT** use in Gaines County, TX.
- **DO NOT** use fluid fertilizer as a carrier for postemergence applications.
- **DO NOT** mix cottonseed oil or seed oil for livestock or illegal residues may result.

3) **Tank Mixture of HELMET SPC or HELMET SPC + Cotoran with Gramoxone Extra or Roundup for Minimum-Tillage or No-Tillage Systems**

When cotton is planted into a cover crop, state seeded, or previous crop residues in minimum-tillage or no-tillage systems the contact herbicides - Gramoxone Extra or Roundup - may be added to a tank mix of either HELMET SPC or HELMET SPC + Cotoran. The Gramoxone Extra portion of the tank mixture controls most emerged weeds and suppresses many perennial weeds when used as directed. The Roundup portion of the tank mixture will control emerged annual and perennial weeds when applied as directed on the label. The HELMET SPC and HELMET SPC + Cotoran portion of the tank mixture will provide preemergence control of weeds listed on this label in the HELMET SPC and HELMET SPC + Cotoran sections, respectively.

**Instructions**
- **Application:** Apply before, during, or after planting, but before the cotton emerges, at the rates specified below. Apply HELMET SPC at 0.85-1.0 pts./A on sand, loams, medium-, and fine-textured soils. Refer to Table 3 for the Cotoran DF rates.
- **Gramoxone Brands:** Apply as directed on the product label. This treatment will not control weeds taller than 6 inches.
- **Restriction:** Do not apply combinations containing Gramoxone brands in suspension-type liquid fertilizers, as the activity of parapquat will be reduced.
- **Roundup:** See the Roundup label for weeds controlled, recommended rates, and other use directions.
- **Restriction:** Do not apply HELMET SPC + Cotoran 4L + Roundup in tank mixture because of compatibility problems.

Apply in 20-60 gals. of water or liquid fertilizer per acre with ground equipment.

**Precautions:**
- **Cotopaxi** may result if heavy rain occurs soon after application especially in poorly drained areas where water stands for several days, or where the seeding slit has not been properly closed.
- **DO NOT** use fluid fertilizer as a carrier for postemergence applications.
- **DO NOT** use fluid fertilizer as a carrier for postemergence applications.
- **DO NOT** use fluid fertilizer as a carrier for postemergence applications.

**Restriction:**
- **DO NOT** make broadcast applications of HELMET SPC + Cotoran to cotton planted in furrows more than 2 inches deep in order to avoid concentration in the seed furrow. Band applications may be made to cotton planted in furrows deeper than 2 inches, but to avoid crop injury band width should not exceed the width of the bottom of the furrow.
- **DO NOT** apply HELMET SPC in areas where water is likely to "pond" over the bed.
- **DO NOT** make broadcast applications of HELMET SPC + Cotoran to cotton planted in furrows more than 2 inches deep in order to avoid concentration in the seed furrow. Band applications may be made to cotton planted in furrows deeper than 2 inches, but to avoid crop injury band width should not exceed the width of the bottom of the furrow.
- **DO NOT** use on Tanka silt loam, or crop injury may occur.
- **DO NOT** use in Gaines County, TX.
- **DO NOT** use fluid fertilizer as a carrier for postemergence applications.
- **DO NOT** mix cottonseed oil or seed oil for livestock or illegal residues may result.

4) **Tank Mixture with MSMA, MSMA + Caparol, or MSMA + Cotoran**

HELMENT SPC may be applied as a postemergence-directed tank mix with MSMA in water for control of emerged weeds listed on the MSMA product label and residual preemergence control of weeds controlled by HELMENT SPC. The addition of Caparol or Cotoran will add control of weed species on their respective labels.

**Postemergence-Directed** (AR, AZ, CA, LA, MO Bootheel, MS, NM, OK, TN and TX): Apply HELMENT SPC + MSMA postemergence-directed to 3- to 12-inch cotton according to the directions, limitations, and precautions on the MSMA product label as well as all directions, limitations, and precautions for use of HELMENT SPC in the section for Cotton-HELMET SPC Alone-Postemergence. Do not apply after first cotton bloom. These treatments may be applied over previous registered treatments, including HELMENT SPC, provided the maximum label rate of any product is not exceeded. Cotoran or Caparol may be added to the HELMENT SPC + MSMA tank mixture according to the respective label directions for application to 3- to 12-inch cotton. When these mixtures are used, follow the mixing instructions for HELMENT SPC + Cotoran or HELMENT SPC + Caparol and then add the MSMA product.

**DO NOT** use HELMENT SPC in tank mix with premixes of MSMA plus herbicides other than those registered for use in tank mixture with HELMENT SPC on cotton.

**PEANUTS**

**HELMET SPC ALONE**

Apply HELMENT SPC, either preplant incorporated, postplant incorporated, preemergence, or lay-by, using the appropriate rate specified below:

**Preplant Incorporated or Preemergence:** Follow instructions for use of HELMENT SPC alone under **Application Procedures**.

**Postplant Incorporated:** Apply and shallowly incorporate HELMENT SPC 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.

**Lay-by:** Apply HELMENT SPC to soil surface immediately after the last cultivation.

In the Southeast, apply HELMENT SPC alone, preplant incorporated, postplant incorporated, preemergence, or lay-by, at a broadcast rate of 1.0-1.33 pts./A. For partial control of Florida beggarweed apply preemergence at a broadcast rate of 1.33-2.0 pts./A.

**Restrictions:**
- **DO NOT** make broadcast applications of HELMENT SPC + Cotoran to cotton planted in furrows more than 2 inches deep in order to avoid concentration in the seed furrow. Band applications may be made to cotton planted in furrows deeper than 2 inches, but to avoid crop injury band width should not exceed the width of the bottom of the furrow.
- **DO NOT** use on Tanka silt loam, or crop injury may occur.
- **DO NOT** use in Gaines County, TX.
- **DO NOT** use fluid fertilizer as a carrier for postemergence applications.
- **DO NOT** mix cottonseed oil or seed oil for livestock or illegal residues may result.

**Note:** HELMENT SPC alone may be applied as directed after any of the following preplant incorporated herbicides when used according to their label recommendations: Balan at 3-4 pts./A, Prowl at 1.25 pts./A, Pursuit at 0.25 pts./A, Sonalan at 1.25-3 pts./A or Treflan EC at 1 pt./A.
HELMET SPC TANK MIXTURES

1) Tank Mixture with Balan L.C.

HELMET SPC + Balan tank mixture applied preplant incorporated, controls those weeds listed under HELMET SPC Alone and those weeds as listed on the Balan label.

Apply HELMET SPC at 1.0-1.33 pts./A + Balan at 3-4 qts./A by ground application in a minimum of 10 gals. of spray volume per acre or by aerial application in a minimum of 5.0 gals. of spray volume per acre. Follow the recommended procedures for Balan on the Balan label for soil preparation and incorporation of this tank mix. Apply and incorporate HELMET SPC + Balan up to 14 days prior to planting.

Note: Follow all restrictions and precautions on the Balan label.

2) Multiple Applications

In situations where weed pressure is expected to be heavy or where difficult to control species are expected, HELMET SPC is most effective when used as follows:

a) Southeast Only (AL, FL, GA, NC, SC, VA)

HELMET SPC + Balan L.C. Applied Preplant Incorporated as directed under Peanuts-HELMET SPC Alone or apply HELMET SPC + Balan preplant incorporated as directed above in this section. Refer to the respective section for weeds controlled.

2nd Application: Apply HELMET SPC any time from Preemergence up to “Ground Cracking” at 1.0-2.0 pts./A for extended control of weeds not yet emerged. Refer to the HELMET SPC Applied Alone section for a list of weeds controlled.

3rd Application: Apply HELMET SPC at Lay-by as directed under Peanuts-HELMET SPC Alone. Use only when late germinating weeds are expected to be a problem. Refer to the HELMET SPC Applied Alone section for a list of weeds controlled.

Restrictions:
- DO NOT apply more than the equivalent of 2.67 lb of active ingredient of HELMET SPC per acre during any one year. If another metolachlor product is used as a sequential treatment, the total lb of metolachlor active ingredient must not exceed 2.67 lb.
- DO NOT use safened metolachlor products after peanuts have emerged.
- DO NOT graze or feed peanut forage or fodder to livestock for 30 days following application.
- DO NOT apply within 90 days of harvest or illegal residues may result.

b) Southwest Only (NM, OK, TX)

HELMET SPC + Sonalan 2) Multiple Applications

HELMET SPC + Sonalan TANK MIXTURES

Apply HELMET SPC + Sonalan up to 14 days prior to planting. Follow the respective section for weeds controlled by HELMET SPC and to the Sonalan label for weeds controlled by Sonalan. Follow recommended soil preparation procedures for Sonalan. Refer to the Peanut Sonalan/HELMET SPC Tank Mixture label for incorporation specifications.

Table 4: HELMET SPC + Sonalan - Peanuts

<table>
<thead>
<tr>
<th>SOIL TEXTURE</th>
<th>BROADCAST RATES PER ACRE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Southeast</td>
</tr>
<tr>
<td></td>
<td>HELMET SPC</td>
</tr>
<tr>
<td>Coarse</td>
<td>1.0 - 1.33 pts.</td>
</tr>
<tr>
<td>Medium</td>
<td>1.0 - 1.33 pts.</td>
</tr>
<tr>
<td>Fine</td>
<td>1.0 - 1.33 pts.</td>
</tr>
</tbody>
</table>

Note: Follow all use directions, limitations, restrictions, precautions, and information regarding application to peanuts on the HELMET SPC and Sonalan labels.
5) Tank Mixture with Prowl
A tank mixture of HELMET SPC + Prowl applied at a rate of 1.33 - 1.5 pts. per acre will control or suppress annual grass and broadleaf weeds and provide residual control of weeds species listed in the HELMET SPC Alone section of this label. Apply Gramoxone Brands plus the appropriate Dual Magnum rate from the Peanuts - HELMET SPC Alone section in a minimum spray volume of 20 gal/A with ground equipment. A follow-up (2nd) application of HELMET SPC + Gramoxone Brands may be made 28 days after ground cracking. (Refer to the Peanuts – HELMET SPC Combinations – Multiple Applications section of this label for geographical areas where multiple applications are allowed.) Refer to the respective labels and follow all directions, timings, limitations, precautions and restrictions for the use of these products on peanuts and follow the most restrictive.

6) Tank Mixture or Sequentially with Gramoxone Brands
Tank mixtures of HELMET SPC + Gramoxone Brands applied at ground cracking or sequentially will control or suppress small (1-6 inch) emerged annual grass and broadleaf weeds and provide residual control of weed species listed in the HELMET SPC Alone section of this label. Apply Gramoxone Brands at the appropriate HELMET SPC rate from the Peanuts – HELMET SPC Alone section in a minimum spray volume of 20 gal/A with ground equipment. A follow-up (2nd) application of HELMET SPC + Gramoxone Brands may be made 28 days after ground cracking. (Refer to the Peanuts – HELMET SPC Combinations – Multiple Applications section of this label for geographical areas where multiple applications are allowed.) Refer to the respective labels and follow all directions, timings, limitations, precautions and restrictions for the use of these products on peanuts and follow the most restrictive.

7) Tank Mixture or Sequentially with Basagran
Adding Basagran to the HELMET SPC + Gramoxone Brands mixture will result in improved control of several problem broadleaf weeds such as prickly sida, cocklebur, smartweed, and bursy starburt. HELMET SPC + Gramoxone Brands + Basagran applied at ground cracking or sequentially will control or suppress small (1-6 inch) emerged annual grass and broadleaf weeds and provide residual control of weed species listed in the HELMET SPC Alone section of this label. Apply Basagran + Gramoxone Brands at the appropriate HELMET SPC rate from the Peanuts – HELMET SPC Alone section in a minimum spray volume of 20 gal/A with ground equipment. A follow-up (2nd) application of HELMET SPC + Basagran may be made 28 days after ground cracking. (Refer to the Peanuts – HELMET SPC Combinations – Multiple Applications section of this label for geographical areas where multiple applications are allowed.) Refer to the respective labels and follow all directions, timings, limitations, precautions and restrictions for the use of these products on peanuts and follow the most restrictive.

8) Tank Mixture or Sequentially with Basagran + Butyrac 200 or Butoxone 200
Adding Butyrac 200 or Butoxone 200 to the HELMET SPC + Gramoxone Brands mixture will result in improved control of such problem broadleaf weeds as sickleweed, morningglory, and cocklebur. HELMET SPC + Gramoxone Brands + Butyrac 200 or Butoxone 200 applied at ground cracking or sequentially will control or suppress small (1-6 inch) emerged annual grass and broadleaf weeds and provide residual control of weed species listed in the HELMET SPC Alone section of this label. Apply Gramoxone Brands + Butyrac 200 or Butoxone 200 at the appropriate HELMET SPC rate from the Peanuts – HELMET SPC Alone section in a minimum spray volume of 20 gal/A with ground equipment. A follow-up (2nd) application of HELMET SPC + Basagran + Butyrac 200 or Butoxone 200 may be made 28 days after ground cracking. (Refer to the Peanuts – HELMET SPC Combinations – Multiple Applications section of this label for geographical areas where multiple applications are allowed.) Refer to the respective labels and follow all directions, timings, limitations, precautions and restrictions for the use of these products on peanuts and follow the most restrictive.

9) Tank Mixture or Sequentially with Basagran
HELMET SPC + Basagran applied at ground cracking or sequentially will control species on the Basagran label and provide residual control of species listed in the HELMET SPC Alone section of this label. Apply 1-2 pts./A of Basagran in 20 gals./A, depending on weed species and stage of growth as specified on the Basagran label, with the appropriate HELMET SPC rate from the Peanuts-HELMENT SPC Alone section. A follow-up (2nd) application of the combination may be made before pegging. (Refer to the Peanuts-HELMET SPC Combinations-Multiple Applications section of this label for geographical areas where multiple applications are recommended.) A follow-up (2nd) Basagran application may be made in all peanut growing areas if needed. Refer to the respective labels and follow all directions, timings, limitations, precautions and restrictions for the use of these products on peanuts and follow the most restrictive.

10) Tank Mixture or Sequentially with Storm
HELMET SPC + Storm applied at ground cracking through 2 expanded tetrafoliate leaves or HELMET SPC applied according to the directions for HELMET SPC Alone and followed with an at-cracking through postemergence treatment of Storm as specified on its label will control species on the Storm label and provide residual control of species listed in the HELMET SPC Alone section of this label. HELMET SPC may not control emerged weeds. Refer to the respective labels and follow all directions, timings, limitations, precautions and restrictions for the use of these products on peanuts and follow the most restrictive.

### Table 5: HELMET SPC + Prowl-Peanuts

<table>
<thead>
<tr>
<th>SOIL TEXTURE</th>
<th>Broadcast Rates Per Acre</th>
<th>Other States</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>NM, OK, TX</td>
<td>OTHER STATES</td>
</tr>
<tr>
<td></td>
<td>HELMET SPC + PROWL</td>
<td>HELMET SPC + PROWL</td>
</tr>
<tr>
<td>Sandy loam</td>
<td>0.85 - 1.0 - 1.5 pts.</td>
<td>1.0 - 1.33 - 1.5 - 2.0 pts.</td>
</tr>
<tr>
<td>Sandy loam</td>
<td>0.85 - 1.5 - 2.0 pts.</td>
<td>1.0 - 1.33 - 1.5 - 2.0 pts.</td>
</tr>
<tr>
<td>Fine soil</td>
<td>1.33 - 1.5 - 2.0 pts.</td>
<td>1.33 - 1.5 - 2.0 pts.</td>
</tr>
</tbody>
</table>

Note: Follow all use directions, limitations, restrictions, and information regarding application to peanuts on the HELMET SPC and Prowl labels.
POD CROPS
Pod crops - Beans, Peas and Lentils including garbanzo, great northern beans, kidney beans, lima 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).
* Use only preemergence applications on English peas. DO NOT use on English peas in northeastern U.S. or injury may occur. If soils are cold and wet during pea germination and emergence, the use of HELMET SPC may delay maturity and/or reduce yields.

HELMET SPC ALONE
Apply HELMET SPC, either preplant incorporated or preemergence, using the appropriate rate specified below.

Fall Application:
• Apply after September 30 in ND, SD, MN, WI, and north of Route 30 in IA.
• Apply after October 15 north of Route 91 in NE and south of Route 30 in IA.
• Apply after October 31 north of Route 136 in IL.
In all locations, apply after harvest to crop stubble when the sustained soil temperature at a 4-inch depth is less than 55°F and falling.

HELMET SPC Fall Use Rates in Pod Crops:
Minimum-till or no-tillage systems – OM > 2.5%
- 1.67-2.0 pts./A on medium-textured
- 2.0 pts./A on fine-textured soils.
DO NOT apply to frozen ground. Tillage prior to application is acceptable. A fall and/or a spring tillage may follow application, but do not exceed an incorporation depth greater than 2-3 inches. Minimize furrow and ridge formation in the tillage operations.

Restriction: 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.

Spring Application:
Apply HELMET SPC, either preplant incorporated or preemergence, using the appropriate rate specified below.

Preplant Incorporated or Preemergence:
Follow instructions for use of HELMET SPC alone under Application Procedures.

HELMET SPC Spring Use Rates in Pod Crops:
Coarse soils
- < 3% OM - 1.0-1.33 pts./A
- > 3% OM - 1.33 pts./A
Medium soils
- 1.33-1.67 pt./A
Fine soils
- < 3% OM - 1.0-1.33 pts./A
- > 3% OM - 1.33-2.0 pts./A

Restrictions:
1) DO NOT cut for hay within 120 days following a HELMET SPC application or illegal residues may result.
2) DO NOT use for forage within 60 days following a HELMET SPC application.
3) DO NOT apply more than 3.0 pts./A of HELMET SPC during any one crop year.

HELMET SPC COMBINATIONS
Restrictions: When applying HELMET SPC in combination on pod crops, DO NOT cut for hay within 120 days following application or illegal residues may result.

1) Tank Mixture and Sequential Applications with EptamBeans (Green or Dry)
HELMET SPC + Eptam mixture controls all weeds controlled by HELMET SPC alone and by Eptam alone. Refer to the HELMET SPC Applied Alone section of this label for weeds controlled by HELMET SPC alone and to the Eptam label for weeds controlled by Eptam.
Preplant Incorporated: Follow instructions for use of HELMET SPC alone under Application Procedures.
Sequential: Apply Eptam alone preplant incorporated as specified on that label. Follow with a preemergence application of HELMET SPC at rates specified for HELMET SPC 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 Eptam label for weather, cultural practices, and all other precautions and limitations that affect performance of these products.
Apply 2.5-4.5 pts./A of Eptam 7E* with HELMET SPC as specified below.

HELMET SPC Use Rates when Tank Mixed with Eptam:
Coarse soils
- < 3% OM - 0.85 pt./A
- > 3% OM - 1.0 pt./A
Medium soils
- < 3% OM - 1.0 pt./A
- > 3% OM - 1.33 pts./A
Fine soils
- < 3% OM - 1.33 pts./A
- > 3% OM - 1.33-1.67 pts./A
*Refer to the Eptam label for rate limitations depending on geographical area and for species and varietal restrictions.

Precautions: Do not exceed 3.5 pts./A of Eptam 7E on small white beans or green beans grown on coarse-textured soils. Follow all restrictions and precautions on the respective Eptam 7E label and in the Beans, Peas, and Lentils – HELMET SPC Alone section of this label.
2) Tank Mixture with Treflan-Beans (Dry-Kidney, Navy, Pinto, etc.; Lima; and Snap)

HELMET SPC + Treflan tank mix applied preplant incorporated controls those weeds listed under HELMET SPC Applied Alone and those weeds listed for Treflan alone on the Treflan label. HELMET SPC + Treflan may be applied by ground or air and incorporated up to 14 days prior to planting. Follow the recommended procedures on this label and on the respective Treflan label using equipment that provides uniform 2-inch incorporation. Apply HELMET SPC + Treflan tank mix using the appropriate HELMET SPC rate specified for HELMET SPC alone, and the Treflan rate from the Dry Beans, and the Lima and Snap Beans sections of the respective Treflan label. Choose the product rate for the specific soil texture/organic matter classification and weed species expected.

Note: Refer to the respective labels and follow all directions, timings, limitations, precautions and restrictions for the use of these products on pod crops and follow the most restrictive.

POTATOES

HELMET SPC ALONE

Apply HELMET SPC alone, either soil incorporated, preemergence, or 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 coarse textured soil or low in organic matter; use the higher rate on fine-textured soils or high in organic matter. Effectiveness will be reduced if later cultural practices expose untreated soil.

Soil Incorporated: Apply HELMET SPC at 1.0-2.0 pts./A to the soil and uniformly incorporate into the top 3 inches before planting using a finishing disk, harrow, rolling cultivator, or similar implement. DO NOT bring untreated soil to the surface at planting and during later cultural practices (or weed control will be decreased). Postplant incorporated application may be made any time after planting to drag-off but before potato emergence. Use an implement that evenly distributes HELMET SPC in the top 2 inches of soil. Avoid damaging potato seed pieces or sprouts with incorporation equipment.

Preemergence: Apply HELMET SPC at 1.0-2.0 pts./A, either after planting as a preemergence, delayed preemergence, after drag-off or hilling treatment, but before weeds emerge. Up to 2.75 pts./A of HELMET SPC alone may be used where soil organic matter is between 6% and 20%.

After Hilling/Lay-by: Apply 1.67 pts./A of HELMET SPC after hilling/at lay-by to control HELMET SPC sensitive species for remainder of the growing season. This hilling/at lay-by application of HELMET SPC will not control emerged weeds. It may be applied over a previous HELMET SPC application but do not apply more than 3.7 pts./A of HELMET SPC in a single crop season.

Precautions:
- If cool, wet soil conditions occur after application, HELMET SPC may delay maturity and/or reduce yield of Superior and other early maturing potato varieties.
- Do NOT apply to sweet potatoes or yams.

Restrictions:
- Preharvest interval: DO NOT harvest potatoes treated with HELMET SPC within 60 days after the at-planting to drag-off application, or within 40 days after a lay-by application or illegal residues may result.
- Do NOT use on muck or peat soils.
- Do NOT apply both as a preemergence and an incorporated treatment.
- Do not use in Kern County, CA.

HELMET SPC COMBINATIONS

1. Tank Mixture with Sencor

In addition to those weeds controlled by HELMET SPC alone, HELMET SPC applied in tank mix combination with, or sequentially with, any of the registered Sencor formulations, also controls the following broadleaf weeds: cocklebur*, hairy nightshade*, hemp sesbania, jimsonweed*, lambsquarters, prickly sida, ragweed, smartweed, velvetleaf, Venice mallow, and wild mustard.

Apply HELMET SPC at 1.0-2.0 pts./A plus the labeled Sencor use rate preemergence through after last hilling.

HELMET SPC Use Rates when Tank Mixed With Sencor:
Coarse soils
- 1.0 – 1.33 pts./A
Other soil types
- 1.33 – 2.0 pts./A

Within these rate ranges, 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. HELMET SPC will not control emerged weeds. Refer to the respective labels and follow all directions, timings, limitations, precautions and restrictions for the use of these products on potatoes and follow the most restrictive.

Precautions:
- To avoid crop injury postemergence applications, with the exception of center pivot application, to potatoes should be made only as a directed or semi-directed spray to avoid chlorosis, minor necrosis, or leaf distortion.

Restrictions:
- Preplant interval: DO NOT harvest potatoes treated with HELMET SPC within 60 days after the at-planting to drag-off application, or within 40 days after a lay-by application or illegal residues may result.
- Do NOT use on muck or peat soils.
- Do NOT apply both as a preemergence and an incorporated treatment.
- Do not use in Kern County, CA.

Do not apply to sweet potatoes or yams.
2. HELMET SPC + Lorox Tank Mixture (East of Rocky Mountains)

HELMET SPC may be tank-mixed with any registered Lorox formulations as a preemergence broadcast application to potato east of the Rocky Mountains. Apply to the soil surface after planting and before emergence of the crop or after final drop-off according to the rates specified in Table 6.

Table 6: HELMET SPC + Lorox-Potatoes (East of Rocky Mountains)

<table>
<thead>
<tr>
<th>SOIL TEXTURE</th>
<th>BROADCAST RATES PER ACRE</th>
<th>1% to Less Than 3% Organic Matter</th>
<th>3 to 5% Organic Matter</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>HELMET SPC</td>
<td>Lorox*</td>
<td>HELMET SPC</td>
</tr>
<tr>
<td>Coarse</td>
<td>1.0 pt.</td>
<td>1.0 - 1.5 lbs.</td>
<td>1.33 pts.</td>
</tr>
<tr>
<td>Medium</td>
<td>1.33 pts.</td>
<td>1.5 - 2.0 lbs.</td>
<td>1.67 - 2.0 pts.</td>
</tr>
</tbody>
</table>

Restrictions:
- DO NOT use on sands or loamy sands.
- DO NOT incorporate or spray over the top of emerged potatoes.

Refer to the respective labels and follow all directions, timings, limitations, precautions and restrictions for the use of these products on potatoes and follow the most restrictive.

3. Tank Mixture with Prowl 4E

In addition to the weeds controlled by HELMET SPC alone, a tank mixture with Prowl 4E controls such problem species as Kochia, lambsquarters, purslane, annual spurge, stinging nettle, and others specified on the Prowl 4E Alone label. Apply HELMET SPC + Prowl 4E preemergence, preemergence incorporated, or early postemergence, according to the specific directions on the Prowl 4E label, using the rates in Table 7.

Table 7: HELMET SPC + Prowl 4E-Potatoes

<table>
<thead>
<tr>
<th>SOIL TEXTURE</th>
<th>BROADCAST RATES PER ACRE</th>
<th>Less than 3% Organic Matter</th>
<th>More than 3% Organic Matter</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>HELMET SPC + PROWL 4E</td>
<td>HELMET SPC + PROWL 4E</td>
<td></td>
</tr>
<tr>
<td>Coarse</td>
<td>1.0 - 1.33 pts. + 1.0 - 1.5 pts.</td>
<td>1.0 - 1.33 pts. + 1.0 - 1.5 pts.</td>
<td></td>
</tr>
<tr>
<td>Medium</td>
<td>1.33 pts. + 1.5 - 2.0 pts.</td>
<td>1.33 - 1.67 pts. + 2.0 - 3.0 pts.</td>
<td></td>
</tr>
<tr>
<td>Fine</td>
<td>1.33 - 1.67 pts. + 2.0 - 3.0 pts.</td>
<td>1.67 - 2.0 pts. + 3.0 pts.</td>
<td></td>
</tr>
</tbody>
</table>

Task Mixture with Prowl 4E + Eptam

In addition to the weeds controlled by HELMET SPC alone, this tank mixture will control those species on the Prowl 4E and Eptam labels. Refer to the HELMET SPC + Prowl 4E labels for rates of these products and add Eptam 7E at 3.5 - 7.0 pts./A, depending on geographical area. Refer to the respective HELMET SPC, Prowl 4E, and Eptam labels and observe all directions, limitations, precautions, and restrictions concerning the use of these products on potatoes and follow the most restrictive.

SAFFLOWER

HELMET SPC ALONE

Preplant Incorporated or Preemergence: Follow instructions for use of HELMET SPC alone under Application Procedures.

HELMET SPC Use Rates in Safflower:

Coarse soils:
- < 3% OM - 1.0 - 1.33 pts./A
- >3% OM - 1.33 pts./A

Medium soils:
- 1.33 - 1.67 pts./A

Fine soils:
- < 3% OM - 1.33 - 1.67 pts./A
- >3% OM - 1.67 - 2.0 pts./A

GRAIN OR FORAGE SORGHUM (SEED TREATED WITH CONCEP® OR SCREEN®)

HELMET SPC ALONE

Apply HELMET SPC, as a preplant surface, preplant incorporated, or preemergence application, using the appropriate rate specified below. Apply HELMET SPC alone only when the sorghum seed has been properly treated by the seed company with Concep or Screen.

Preplant Surface-Applied: Refer to instructions for use of HELMET SPC under Application Procedures. In minimum-tillage or no-tillage systems only, apply HELMET SPC up to 45 days before planting in GA, IL, KS, MO, NE, and SD. Use only split applications for treatments made 30-45 days prior to planting, with 2/3 of the broadcast rate applied initially and the remaining 1/3 at planting. Apply 1.50 pts./A of HELMET SPC on medium soils or 1.67 pts./A on fine soils. Treatments made less than 30 days prior to planting may be made either as a split or single application. Apply 1.33 pts./A of HELMET SPC on coarse soils not more than 2 weeks prior to planting. Under dry conditions, irrigation after application is recommended to move HELMET SPC into the soil.
Preplant Incorporated or Preemergence: Refer to instructions for use of HELMET SPC under Application Procedures. Broadcast 1.0-1.33 pts./A of HELMET SPC on coarse soils, 1.33-1.50 pts./A on medium soils, or 1.50-1.67 pts./A on fine soils.

Precautions:
- If sorghum seed is not properly treated with Concep seed treatment, preplant and preemergence applications of HELMET SPC will severely injure the crop.
- Under high soil moisture conditions prior to sorghum emergence, injury may occur following preplant and preemergence application of HELMET SPC. The crop will normally outgrow this effect.
- DO NOT use HELMET SPC on sorghum grown under dry mulch tillage, or injury may occur.

Restriction:
- Except for the split preplant surface treatment, DO NOT make more than one application per year.

HELMET SPC COMBINATIONS

HELMET SPC tank mixtures with AAtrex may be applied in water or fluid fertilizer. Apply HELMET SPC in tank mixtures only when the sorghum seed has been properly treated by the seed company with Concep or Screen.

IMPORTANT: FOR TANK MIXTURES WITH AATREX (OR OTHER BRANDS OF ATRAZINE) If applying HELMET SPC in tank mixture with AAtrex, all the restrictions and rate limitations on the AAtrex label must be followed if more restrictive/protective than those on this label. In addition, if AAtrex is to be applied at rates lower than those recommended on this label, broadleaf weed control may be affected. Refer to the AAtrex label for weeds controlled at the reduced rates.

Note: Certain states 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.

Precautions:
- Applications of HELMET SPC + AAtrex on highly alkaline soils or on eroded areas where calcareous subsols are exposed may cause sorghum injury.
- If sorghum seed is not properly treated with Concep or Screen, HELMET SPC + AAtrex may severely injure the crop.
- Under high soil moisture conditions prior to sorghum emergence, injury may occur following the use of HELMET SPC + AAtrex. The crop will normally outgrow this effect.

Restrictions:
- DO NOT use HELMET SPC + AAtrex on sorghum grown under dry mulch tillage or injury may occur.
- Except for the split preplant surface treatment, do not make more than one application per year or illegal residues may result.

1) Tank Mixture with AAtrex

HELMET SPC + AAtrex controls the following broadleaf weeds when applied either preplant surface, preplant incorporated, or preemergence: cocklebur, common purslane, hairy nightshade, lambquarters, morningglory, ragweed, smartweed, and velvetleaf in addition to the weeds controlled by HELMET SPC alone.

Preplant Surface-Applied: Refer to instructions for use of HELMET SPC under Application Procedures. For minimum-tillage or no-tillage systems only, HELMET SPC + AAtrex 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 30-45 days prior to planting, with 2/3 of the broadcast rate applied initially and the remaining 1/3 at planting. Apply 1.50 pts./A of HELMET SPC + 1.7-2 lbs./A of AAtrex Nine-O on medium soils with 1.5% organic matter or greater. Apply 1.0 pts./A of HELMET SPC + 1.7-2 lbs./A of AAtrex Nine-O on fine soils with less than 1.5% organic matter, or apply 1.67 pts./A of HELMET SPC + 2.2-2.2 lbs./A of AAtrex Nine-O 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, irrigation after application is recommended to move HELMET SPC + AAtrex into the soil.

Restrictions:
- DO NOT use on coarse soils.
- DO NOT use on medium soils with less than 1.5% organic matter.

Preplant Incorporated or Preemergence: Refer to instructions for use of HELMET SPC under Application Procedures. On medium soils with 1.5% organic matter or greater, apply 1.0 pt./A of HELMET SPC + 1.3 lbs./A of AAtrex Nine-O. On fine soils with less than 1.5% organic matter, apply 1.0 pt./A of HELMET SPC + 1.3 lbs./A of AAtrex Nine-O. On fine soils with 1.5% organic matter or greater, apply 1.2-1.33 pts./A of HELMET SPC + 1.6-1.8 lbs./A of AAtrex Nine-O.

*When using AAtrex 4L, use equivalent rates. One lb. of AAtrex Nine-O equals 1.9 pts. of AAtrex 4L.

Restrictions:
- 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.

2) Tank Mixture of HELMET SPC or HELMET SPC + AAtrex, with Gramoxone Extra, Landmaster BW, or Roundup for Minimum-Tillage or No-Tillage Systems

In minimum-tillage or no-tillage systems where sorghum (seed treated with Concep or Screen) is planted directly into a cover crop, state seedbed, established soil, or previous crop residues, the contact herbicides Gramoxone Extra, Landmaster BW, or Roundup may be tank mixed with HELMET SPC or HELMET SPC + AAtrex. See Comment Below. "The HELMET SPC or HELMET SPC + AAtrex portion of the tank mixture provides preemergence control of the weeds listed on this label under the respective sections.

*In Minimum-Tillage and No-Tillage systems, mix with Gramoxone Extra for control of most emerged annual weeds and suppression of perennial weeds; or with Landmaster BW for suppression of emerged field bindweed and control or suppression of annual weeds; or with Roundup for control of most emerged annual and perennial weeds.

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 Gramoxone brands, Landmaster BW, or Roundup brands and apply as directed on the product labels.

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

Landmaster BW: Apply as directed on the product label. See the Landmaster BW label for weeds controlled, listed rates for specific weeds, and other information concerning use.

Roundup Brands: Apply as directed on the Roundup brand label. See label for weeds controlled, use rates, and other use directions.

NOTE: Refer to the respective labels and follow all directions, timings, limitations, precautions and restrictions for the use of these products on Grain or Forage Sorghum and follow the most restrictive.

Apply in a minimum of 20 gals. of water per acre with conventional spray equipment.
SOYBEANS
HELMET SPC ALONE
Apply HELMET SPC, either preplant surface-applied, preplant incorporated, preemergence or postemergence using the appropriate rate specified below. Preplant Surface-Applied, Preplant Incorporated, or Preemergence: Follow instructions for use of HELMET SPC alone under Application Procedures.

Preplant Surface-Applied
1) Fall Application – Apply based on the following dates for different geographic areas
   MN, ND, SD, WI and North of Route 30 in IA - after September 30
   NE - North of Route 91 and South of Route 30 in IA - after October 15
   IL - North of Route 136 - after October 31
   In all areas, 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- or no-tillage systems on soils having greater than 2.5% organic matter, use 1.67-2.0 pts./A on medium-textured and 2.0 pts./A on fine-textured soils. DO NOT apply to frozen ground. A tillage operation may be followed by a fall and/or a spring tillage. However, do not exceed an incorporation depth greater than 2.3 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 soybeans or illegal residues may result.

2) Use on medium and fine soils with minimum-tillage or no-tillage systems in CO, CT, DE, IA, IL, IN, KS, KY, MA, ME, MI, MN, MO, MT, ND, NE, NH, NY, OH, PA, RI, SD, TN, VA, VT, WI, WV, and WY.

   Apply 2/3 of the recommended rate of HELMET SPC (1.67 pts./A on medium soils and 2.0 pts./A on fine soils) as a split treatment 30-45 days prior to planting. The remainder should be applied at planting. If application is to be made less than 30 days before planting it may be applied either a split or single treatment. Apply 1.33 pts./A on coarse soils not more than 2 weeks prior to planting.

Preplant Incorporated or Preemergence
Apply in soybeans as Preplant Incorporated or Preemergence application using the following rates.

HELMET SPC Preplant Incorporated or Preemergence in Soybean:

Coarse soils
- < 3% OM - 1.0-1.33 pts./A
- > 3% OM - 1.33 pts./A

Medium soils
- 1.33-1.67 pts./A

Fine soils
- < 3% OM - 1.33-1.67 pts./A
- > 3% OM - 1.67-2.0 pts./A

Restrictions: HELMET SPC may be used in soybeans up to 2.75 pts./A as a preplant surface-applied, preplant incorporated, or preemergence treatment on soils having an organic matter content between 6% and 20%. The total HELMET SPC rate applied to soybeans during any one crop should not exceed 2.75 pts./A.

Postemergence Application
NOT for use in California
From emergence up through the 5th trifoliate leaf stage apply HELMET SPC at 1.0 – 1.33 pts./A to soybeans as a postemergence application from emergence up through the 5th trifoliate leaf stage. Apply HELMET SPC to a weed-free surface as HELMET SPC will not control emerged weeds. If weeds are present at the time of application, HELMET SPC 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 SPC 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 SPC.
- DO NOT apply a postemergence application of HELMET SPC if a preplant surface, preplant incorporated or preemergence application of metolachlor products has already been applied.

HELMET SPC COMBINATIONS
Water or fluid fertilizer may be used as carrier for HELMET SPC in combination with Sencor, Lorox, Canopy, Pursuit, Scepter, Sonalan, or Command.

Restrictions: For all of the following combinations, HELMET SPC may be used up to 2.5 pts./A on soils having an organic matter content between 6% and 20%. The total HELMET SPC rate applied to soybeans during any one crop year should not exceed 2.75 pts./A.

1) Tank Mixture with Sencor
   HELMET SPC + Sencor when applied as directed controls the following broadleaf weeds: cocklebur*, hairy nightshade, hemp sesbania, jimsonweed*, lambsquarters, prickly sida, ragweed, smartweed, velvetleaf, Venice mallow, and wild mustard in addition to those weeds controlled by HELMET SPC alone.
   *Partially controlled.
   Apply HELMET SPC and Sencor preplant incorporated or preemergence using the rates in Table 8. Preplant Incorporated or Preemergence: Follow instructions for use of HELMET SPC alone under Application Procedures.

   Sequential: Apply HELMET SPC alone Preplant Incorporated, as specified in Table 8 for this tank mixture. Follow with a preemergence application of Sencor during planting (behind the planter) or after planting but before weeds or soybeans emerge. Refer to the Sencor label for planting details and soybean variety restrictions.
Table 8: HELMET SPC + Sencor - Soybeans

<table>
<thead>
<tr>
<th>SOIL TEXTURE**</th>
<th>BROADCAST RATES PER ACRE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0.5% to less than 3% Organic Matter</td>
</tr>
<tr>
<td></td>
<td>HELMET SPC + Sencor*</td>
</tr>
<tr>
<td>Coarse Loamy sand (over 2% organic matter), sandy loam</td>
<td>0.85 - 1.0 pt. + 0.33 lb.</td>
</tr>
<tr>
<td>Medium</td>
<td>1.0 - 1.33 pts. + 0.5 lb.</td>
</tr>
<tr>
<td>Fine</td>
<td>1.33 pts. + 0.67 lb.</td>
</tr>
<tr>
<td>Mississippi Delta only Silty clay, clay</td>
<td>1.33 pts. + 1.0 lb.</td>
</tr>
<tr>
<td>Muck or Peat</td>
<td></td>
</tr>
<tr>
<td>(soils with more than 20% OM)</td>
<td></td>
</tr>
</tbody>
</table>

Restrictions:
- Do NOT use tank mix or sequential application on soil with less than 0.5% organic matter.
- Do NOT use tank mix or sequential application 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.

2) Tank Mixture with Lorox
HELMET SPC + Lorox when applied preemergence controls the following broadleaf weeds: cocklebur*, jimsonweed*, lambsquarters, morningglory*, prickly sida, ragweed, smartweed, velvetleaf*, Venice mallow, and wild mustard in addition to those weeds controlled by HELMET SPC alone.

Preemergence: Apply during planting (behind planter) or after planting, but before weeds or soybeans emerge. Refer to the Lorox label for planting details. Apply the appropriate rates from Table 9.

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

*Partially controlled.

Table 9: HELMET SPC + Lorox-Soybeans

<table>
<thead>
<tr>
<th>SOIL TEXTURE*</th>
<th>BROADCAST RATES PER ACRE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0.5% to less than 3% Organic Matter</td>
</tr>
<tr>
<td></td>
<td>HELMET SPC + Lorox DF**</td>
</tr>
<tr>
<td>Coarse</td>
<td>0.85 + 1.0 lb.</td>
</tr>
<tr>
<td>Medium</td>
<td>1.0 pt. + 1 - 1.5 lb.</td>
</tr>
<tr>
<td>Fine</td>
<td>1.33 pts. + 2.0 lb.</td>
</tr>
<tr>
<td>Muck or Peat</td>
<td>DO NOT USE</td>
</tr>
<tr>
<td>(soils with more than 20% OM)</td>
<td></td>
</tr>
</tbody>
</table>

*Do not use on sand, gravelly soils, or exposed subsoils.
**Do not use on loamy sand except in the northeastern U.S. on loamy sand with over 1% organic matter.

When using Lorox L or Lorox DF, use equivalent rates. One pt. of Lorox L equals 1 lb. of Lorox DF.

3) Tank Mixture with Treflan
HELMET SPC + Treflan tank mix applied preplant incorporated controls weeds listed under the HELMET SPC Applied Alone section and those weeds listed for Treflan Alone on the Treflan label. HELMET SPC + Treflan tank mixture may be applied by ground or by aerial equipment and incorporated up to 14 days before planting. Follow the recommended procedures on the Treflan and HELMET SPC labels using equipment that provides uniform 2-inch incorporation.

Apply HELMET SPC + Treflan tank mix, using the appropriate rate from the Soybeans-HELMET SPC Alone section of this label and the Treflan Alone section of the Treflan label for the specific soil texture/organic matter classification and weed species expected.

*To control DNA-resistant goosegrass and other species on the respective labels where the soil organic matter is 3% or less, apply the rate listed in Table 10.
Table 10: HELMET SPC + Treflan-Organic Matter Content Less Than 3%

<table>
<thead>
<tr>
<th>SOIL TEXTURE</th>
<th>HELMET SPC</th>
<th>Treflan EC**</th>
<th>HELMET SPC</th>
<th>Treflan EC**</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coarse</td>
<td>0.85 - 1.0 pts</td>
<td>1.0 pts</td>
<td>1.5 pts</td>
<td></td>
</tr>
<tr>
<td>Medium</td>
<td>1.0 pts</td>
<td>1.5 pts</td>
<td>1.5 pts</td>
<td></td>
</tr>
<tr>
<td>Fine soil</td>
<td>1.33 pts</td>
<td>2.0 pts</td>
<td>2.0 pts</td>
<td></td>
</tr>
</tbody>
</table>

* When a range of rates is given for HELMET SPC, use the minimum HELMET SPC rate where DNA-resistant goosegrass is the predominant species.

** When Treflan MTF or Treflan 5 is used, use comparable rates. Multiply pts. of Treflan EC by 1 for Treflan MTF and by 0.8 for Treflan 5.

Note: Follow all restrictions and precautions on the respective Treflan label and in the Soybeans-HELMET SPC Alone section of this label.

4) Tank Mixture with Scepter

A tank mixture of HELMET SPC + Scepter controls all weeds controlled by HELMET SPC alone and by Scepter alone. Refer to the HELMET SPC Applied Alone section for weeds controlled by HELMET SPC and to the Scepter label for weeds controlled by Scepter. Refer to the Scepter label for geographical locations where this tank mixture may be applied.

Apply HELMET SPC + Scepter preplant incorporated or preemergence using rates in Table 11. Follow use directions under Application Instructions on the Scepter label. For preplant incorporated applications, apply and incorporate within 30 days before planting. Observe all other precautions and limitations on the Scepter labels.

Table 11: HELMET SPC + Scepter-Soybeans

<table>
<thead>
<tr>
<th>SOIL TEXTURE</th>
<th>HELMET SPC</th>
<th>Scepter</th>
<th>HELMET SPC</th>
<th>Scepter</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coarse</td>
<td>0.85 pts</td>
<td>0.67 pts</td>
<td>1.0 pts</td>
<td>0.67 pts</td>
</tr>
<tr>
<td>Medium</td>
<td>1.0 pts</td>
<td>0.67 pts</td>
<td>1.33 pts</td>
<td>0.67 pts</td>
</tr>
<tr>
<td>Fine soil</td>
<td>1.33 pts</td>
<td>0.67 pts</td>
<td>1.33 - 1.67 pts*</td>
<td>0.67 pts</td>
</tr>
</tbody>
</table>

* Use the higher rate of HELMET SPC if heavy weed infestations are expected.

Restrictions:
- DO NOT apply within 90 days of harvest
- DO NOT graze or feed treated soybean forage, hay, or straw to livestock or illegal residues may result.

5) Tank Mixture with Canopy

This tank mixture controls all weeds controlled by both HELMET SPC and Canopy when applied alone. Refer to the HELMET SPC Applied Alone section for weeds controlled by HELMET SPC and to the Canopy label for weeds controlled by Canopy.

Apply preplant incorporated or preemergence using the appropriate rates from Table 12. Preplant Incorporated: Apply within 2 weeks of planting. Uniformly incorporate into the top 1-2 inches of soil before planting soybeans. Preemergence: Apply after planting, but before soybeans emerge.

Note: Follow all use directions, varietal restrictions, limitations, precautions, information regarding application to soybeans, and rotational restrictions on the HELMET SPC and Canopy labels.

Table 12: HELMET SPC + Canopy-Soybeans

<table>
<thead>
<tr>
<th>SOIL TEXTURE</th>
<th>HELMET SPC</th>
<th>Canopy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coarse</td>
<td>0.85 pts</td>
<td>*</td>
</tr>
<tr>
<td>Medium</td>
<td>1.0 pts</td>
<td>1.33 pts*</td>
</tr>
<tr>
<td>Fine soil</td>
<td>1.33 pts</td>
<td>1.33 - 1.67 pts*</td>
</tr>
</tbody>
</table>

* Refer to the Canopy label for appropriate rate according to geographical location, soil and organic matter classification, and pH limitations.

Restrictions:
- 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 Canopy label.
6) Tank Mixture with Command
HELMET SPC tank mixed with Command controls all weeds controlled by HELMET SPC alone and Command alone. Refer to the HELMET SPC Applied Alone section for weeds controlled by HELMET SPC and to the Command label for weeds controlled by Command.

*Note: Before making applications, read and strictly follow all use directions, limitations, restrictions, precautions, information regarding application to soybeans, and rotational restrictions on the HELMET SPC and Command labels.

7) Tank Mixture with Sonalan
HELMET SPC tank mixed with Sonalan controls all weeds controlled by HELMET SPC alone and by Sonalan alone. Refer to the HELMET SPC Applied Alone section for weeds controlled by HELMET SPC and to the Sonalan label for weeds controlled by Sonalan.

8) Tank Mixture with Pursuit
HELMET SPC tank mixed with Pursuit controls all weeds controlled by HELMET SPC alone and by Pursuit alone. Refer to the HELMET SPC Applied Alone section for weeds controlled by HELMET SPC and to the Pursuit label for weeds controlled by Pursuit. Refer to the Pursuit label for geographical locations where this tank mixture may be applied. Apply HELMET SPC + Pursuit early preplant, preplant incorporated, or preemergence after planting using rates in Table 15. Application may be made in water or liquid fertilizer. Follow all use directions under Soil Applications on the Pursuit label. For early preplant and preplant incorporated applications, apply within 30 days before planting.

**Note:** Follow all use directions, limitations, precautions, information regarding application to soybeans, and rotational restrictions on the HELMET SPC and Pursuit labels.

### Table 13: HELMET SPC + Command - Soybeans

<table>
<thead>
<tr>
<th>SOIL TEXTURE</th>
<th>HELMET SPC</th>
<th>Command 4E</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coarse</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Medium</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fine</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Table 14: HELMET SPC + Sonalan - Soybeans

<table>
<thead>
<tr>
<th>SOIL TEXTURE</th>
<th>Broadcast Rates Per Acre</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Less Than 3% Organic Matter</td>
</tr>
<tr>
<td>Coarse</td>
<td>1.0 - 1.33 pts.</td>
</tr>
<tr>
<td>Medium</td>
<td>1.33 - 1.67 pts.</td>
</tr>
<tr>
<td>Fine</td>
<td>1.33 - 1.67 pts.</td>
</tr>
</tbody>
</table>

**Note:** For eastern black nightshade on these soils, apply Sonalan at 3 pts./A on medium- and 3.5 pts./A on fine-textured soils, and follow with 2 incorporation passes.

### Table 15: HELMET SPC + Pursuit - Soybeans

<table>
<thead>
<tr>
<th>SOIL TEXTURE</th>
<th>HELMET SPC</th>
<th>Pursuit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coarse</td>
<td>0.85 pt.</td>
<td>0.25 pt.</td>
</tr>
<tr>
<td>Medium</td>
<td>1.0 pts.</td>
<td>0.25 pt.</td>
</tr>
<tr>
<td>Fine soil</td>
<td>1.33 pts.</td>
<td>0.25 pt.</td>
</tr>
</tbody>
</table>

Sequential: Apply HELMET SPC early preplant, preplant incorporated, or preemergence after planting at 0.85 pt./A on coarse soils and 1.0 pt./A on medium- and fine-textured soils. Follow with a sequential postemergence application of Pursuit to control emerged weeds according to the Pursuit label. HELMET SPC will improve the consistency and level of control from Pursuit on most grass species. Refer to the Pursuit postemergence label for a listing of weeds controlled, application rate, and growth stage limitations.
9) Tank Mixture with Sencor, Scepter, Lorox, Canopy, or Pursuit, plus Gramoxone Extra or Roundup 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 Gramoxone Extra or Roundup may be added to a tank mix of either HELMET SPC + Sencor, HELMET SPC + Scepter, HELMET SPC + Lorox, HELMET SPC + Canopy, or HELMET SPC + Pursuit. When used as directed, the Gramoxone Extra portion of the tank mixture controls most emerged weeds and suppresses many perennial weeds. Roundup combinations will control emerged annual and perennial weeds when applied as directed on the Roundup label. The HELMET SPC + Sencor, Scepter, Lorox, Canopy or Pursuit portion of the tank mixture provides preemergence control of the weeds listed on this label in the tank mixture section for HELMET SPC + Sencor, HELMET SPC + Scepter, HELMET SPC + Lorox, HELMET SPC + Canopy, and HELMET SPC + Pursuit, respectively. 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 precautions and limitations.

Refer below for rates of Gramoxone Extra or Roundup, HELMET SPC + Sencor, HELMET SPC + Scepter, HELMET SPC + Lorox, and HELMET SPC + Pursuit, respectively.

**Application:** Apply before, during, or after planting, but before the soybeans emerge, at the rates specified below. Add Gramoxone Extra or Roundup at the following broadcast rates:

- **Gramoxone Extra:**
  - 1-3 inch weeds: 1.5 to 2 pts./A
  - 3-6 inch weeds: 2 to 2.5 pts./A
  - 6-inch weeds: 2.5 to 3 pts./A

  Apply surfactant at 1 or 2 pts./100 gals. of spray mixture with 75% or greater or 50-74% nonionic active ingredient, respectively. This treatment will not control weeds taller than 6 inches.

- **Restriction:** Do not apply combinations containing Gramoxone Extra in suspension type liquid fertilizers as the activity of paraquat will be reduced.

- **Roundup:** See the Roundup or Roundup RT label for weeds controlled, recommended rates, and other use directions. Apply in 20-60 gals. of water or fluid fertilizer per acre with ground equipment.

- **HELMET SPC + Sencor + Gramoxone Extra or Roundup**
  - Coarse soils: apply 1.0 pt./A of HELMET SPC + 0.33-0.5 lb./A of Sencor.
  - Medium soils: apply 1.33 pts./A of HELMET SPC + 0.5-0.67 lb./A of Sencor.
  - Fine soils: apply 1.33-1.67 pts./A of HELMET SPC + 0.67 lb./A of Sencor.

  *When using Sencor 4, multiply lbs. of DF by 1.5 to get pts./A.*

  **Restrictions:**
  - Do not apply combinations containing Gramoxone Extra in suspension type liquid fertilizers as the activity of paraquat will be reduced.
  - DO NOT use on soil with less than 0.5% organic matter, on alkaline soil with a pH over 7.4, or on all sand and 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.

- **HELMET SPC + Scepter + Gramoxone Extra or Roundup**
  - Coarse soils: apply 1.0 pt./A of HELMET SPC + 0.67 pt./A of Scepter.
  - Medium soils: apply 1.33 pts./A of HELMET SPC + 0.67 pt./A of Scepter.
  - Fine soils: apply 1.67 pts./A of HELMET SPC + 0.67 pt./A of Scepter.

  **Restrictions:**
  - DO NOT apply within 90 days of harvest.
  - DO NOT use on soil with less than 0.5% organic matter, on alkaline soil with a pH over 7.4, or on all sand and 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.

- **HELMET SPC + Lorox + Gramoxone Extra or Roundup**
  - Coarse soils: apply 1.0 pt./A of HELMET SPC + 1-1.5 lbs./A of Lorox DF**.
  - Medium soils: apply 1.33 pts./A of HELMET SPC + 1-2 lbs./A of Lorox DF.
  - Fine soils: apply 1.33-1.67 pts./A of HELMET SPC + 2-3 lbs./A of Lorox DF.

  **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.
  - DO NOT use on soil with less than 0.5% organic matter or crop injury may occur.

- **HELMET SPC + Canopy + Gramoxone Extra or Roundup**
  - Use only where soils have 0.5-5% organic matter.
  - Coarse soils (except sand): apply 1.0 pt./A of HELMET SPC.
  - Medium soils: apply 1.33 pts./A of HELMET SPC.
  - Fine soils: apply 1.67 pts./A of HELMET SPC.

  **Restrictions:**
  - DO NOT apply to sand, or to any soil with less than 0.5% organic matter.
  - DO NOT apply to any soil with pH greater than 7.0, except as noted on the Canopy label.

- **HELMET SPC + Pursuit + Gramoxone Extra or Roundup**
  - Coarse soils: apply 1.0 pt./A of HELMET SPC + 0.25 pt./A of Pursuit.
  - Medium soils: apply 1.33 pts./A of HELMET SPC + 0.25 pt./A of Pursuit.
  - Fine soils: apply 1.67 pts./A of HELMET SPC + 0.25 pt./A of Pursuit.
TOMATOES

Transplanted Tomatoes: HELMET SPC may be applied preplant incorporated or preplant before transplanting. When used preplant before transplanting, keep soil disturbance to a minimum during transplanting. Application may also be made post-directed to transplants after the first settling rain or irrigation. When an application is made post-directed, apply in a minimum of 20 gallons of water per acre and minimum contact with tomato plants. HELMET SPC will not control emerged weeds.

In bedded transplanted tomatoes, apply HELMET SPC preplant non-incorporated to the top of the pressed bed, as the last step, prior to laying plastic. HELMET SPC may be used to treat row middles in bedded tomatoes, as long as the total amount of HELMET SPC does not exceed the maximum allowed per crop.

Seeded Tomatoes: HELMET SPC 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. HELMET SPC will not control emerged weeds.

Tomato Use Rates

Coarse soils –
- a) apply HELMET SPC at 1.0-1.33 pts./A if organic matter content is less than 3%
- b) apply HELMET SPC at 1.33 pts./A if the organic matter is 3% or greater.

Medium soils – apply HELMET SPC at 1.33-1.67 pts./A.

Fine soils –
- a) apply HELMET SPC at 1.33-1.67 pts./A if organic matter content is less than 3%
- b) apply HELMET SPC at 1.67-2.0 pts./A if the organic matter content is 3% or greater.

Precautions:

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

Restrictions:

- Do not apply to varieties or cultivars with unknown tolerance to HELMET SPC.
- HELMET SPC may damage transplants that have been weakened by any cause.
- Do not plant when wet, cool, or unfavorable growing conditions exist.
- Do NOT plant when wet, cool, or unfavorable growing conditions exist.
- Do NOT plant in transplanted tomatoes, if HELMET SPC 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.
- Do not apply more than 1 post emergence application per year.
- Do NOT plant when wet, cool, or unfavorable growing conditions exist.
- Do NOT plant within 90 days of tomato harvest.
- Do NOT exceed the maximum label rate for the soil texture per year.
- Do NOT apply by air - apply by ground application only.
- Do NOT apply more than 1 post emergence application per year.
- Do NOT plant when wet, cool, or unfavorable growing conditions exist.

Restrictions:

- Do NOT make more than one fall application of HELMET SPC.
- Do NOT apply more than 2.1 pts./A of HELMET SPC in a single fall application.
- Application to cotton and corn – The total amount of metolachlor applied (fall + spring) cannot exceed 4.0 pts./A HELMET SPC.
- Application to soybean – The total amount of metolachlor applied (fall + spring) cannot exceed 2.75 pts./A HELMET SPC.
- Do NOT apply HELMET SPC to frozen ground.
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.

**APPENDICES**

**APPENDIX A:**

**Compatibility Test**

Since liquid fertilizers can vary, even within the same analysis, always check compatibility with herbicide(s) each time before use. Be especially careful when using complete suspension or fluid fertilizers, as serious compatibility problems are more likely to occur. Commercial application equipment may improve compatibility in some instances. The following test assumes a spray volume of 25 gals./A. For other spray volumes, make appropriate changes in the ingredients. Check compatibility using this procedure:

1. Add 1 pt. of fertilizer to each of 2 one-qt. jars with tight lids.
2. To one of the jars, add 1/4 tsp. or 1.2 milliliters of a compatibility agent approved for this use, such as Complex or Unite (1/4 tsp. is equivalent to 2 pts./100 gals. spray). Shake or stir gently to mix.
3. To both jars, add the appropriate amount of herbicide(s). If more than one herbicide is used, add them separately with dry herbicides first, flowables next, and emulsifiable concentrates last. After each addition, shake, or stir gently to thoroughly mix. The appropriate amount of herbicides for this test follows:
   - Dry herbicides: For each pound to be applied per acre, add 1.5 level teaspoons to each jar.
   - Liquid herbicides: For each pint to be applied per acre, add 0.5 teaspoon or 2.5 milliliters to each jar.
   - Note: For HELMET SPC tank mixtures with AAtrex plus Prinsepest, use 1/3 - 1/2 the amount of AAtrex specified above and the remainder as Prinsepest, depending on whether the 1:2 or 1:1 ratio of AAtrex to Prinsepest is to be applied.
4. After adding all ingredients, put lids on and tighten, and invert each jar 10 times to mix. Let the mixtures stand 15 minutes and then look for separation, large flakes, precipitates, gels, heavy oil film on the jar, or other signs of incompatibility. Determine if the compatibility agent is needed in the spray mixture by comparing the 2 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 (4) dry the herbicide(s) in water before addition, or (B) add 1/2 of the compatibility agent to the fertilizer and the other 1/2 to the emulsifiable concentrate or flowable herbicide before addition to the mixture. If incompatibility is still observed, do not use the mixture.

**APPENDIX B:**

**Low Carrier Application**

For Broadcast Ground Application Only

Use sprayers, such as Ag-Chem RoGator, Hagie, John Deere Hi-Cycle, Meline 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 35-40 psi at the nozzle, and (2) provide sufficient agitation in tank to keep mixture thoroughly with clean water immediately after each use.

**Aerial Drift Management:**

Avoid 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 these factors when making decisions. The following drift management requirements must be followed to avoid off-target drift movements 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 backwards HELMET SPC with the airstream and never be pointed downwards more than 45 degrees.

Where states have more stringent regulations, they should 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 Management:**

**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 HELMET SPC 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.
Prepare the herbicide/fertilizer mixtures by using any closed drum, belt, ribbon, or other commonly used dry bulk fertilizer blender. Nozzles used to spray HELMET SPC and HELMET SPC herbicide/fertilizer mixture.

When applying HELMET SPC or HELMET SPC 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. Many dry bulk granular fertilizers may be impregnated or coated with HELMET SPC alone or selected HELMET SPC tank mixtures which are registered for preplant incorporated or preplant surface application which are used to control weeds in crops on the HELMET SPC label and are not prohibited from use on dry bulk granular fertilizers. When applying HELMET SPC or HELMET SPC 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.

APPENDIX D:
Center Pivot Irrigation Application
HELMET SPC 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 recommended on this label. 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 non-uniform distribution of treated water. If you have questions about calibration, you should contact State Extension specialists, equipment manufacturers, or other experts. Do not connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system, unless the pesticide label-prescribed safety devices for public water systems are in place. A person knowledgeable of the chemigation system and responsible for its operation, or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.

Operating Instructions
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 delivery 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 of 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 - 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.

Precautions 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.

APPENDIX E:
Dry Bulk Granular Fertilizers
Many dry bulk granular fertilizers may be impregnated or coated with HELMET SPC alone or selected HELMET SPC tank mixtures which are registered for preplant incorporated or preplant surface application which are used to control weeds in crops on the HELMET SPC label and are not prohibited from use on dry bulk granular fertilizers.

When applying HELMET SPC or HELMET SPC 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 HELMET SPC and HELMET SPC mixtures onto the fertilizer must be placed to provide uniform spray coverage. Cane 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. Absorbent materials should be added only after the herbicide has been thoroughly blended into the fertilizer mixture. Best application results will be obtained by using a granule of 6/30 particle size or of a size similar to that of the fertilizer material being used. Generally, less than 2% by weight of absorbent material will be needed. Avoid using more than 5% absorptive material by weight.

Calculate amounts of HELMET SPC, AAtrex, AAtrex plus Princep, Princep, Senoron, or Sonalan by the following formula:

\[ \text{Amount of HELMET SPC} \times \text{lbs. of fertilizer/acre} \times 2000 = \text{lbs. of fertilizer per ton of fertilizer} \]

\[ \text{Amount of AAtrex} \times \text{lbs. of fertilizer/acre} \times 2000 = \text{lbs. of dry product per ton of fertilizer} \]

Pneumatic (Compressed Air) Application (HELMET SPC 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 HELMET SPC with Exxon Aromatic 200 at a rate of 1 - 4 pts./gal. of HELMET SPC. 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.

Note: (1) Mixtures of HELMET SPC and Aromatic 200 must be used on dry fertilizer only. Poor results or crop injury may result if these mixtures are used in water or liquid fertilizer solutions for spraying applications. (2) When impregnating HELMET SPC in a blender before application, a drier mixture can be attained by substituting a drying agent for Aromatic 200. Use of Apsorb FG or drying agents of 6/30 particle size are recommended. (3) Drying agents are not recommended for use with On-The-Go impregnation equipment.

Precautions: To avoid potential for explosion: (1) Do not impregnate HELMET SPC or HELMET SPC mixtures on ammonium nitrate, potassium nitrate, or sodium nitrate, either alone or in blends with other fertilizers. (2) Do not use HELMET SPC or HELMET SPC mixtures on straight limestone, since absorption will not be achieved. Fertilizer blends containing limestone can be impregnated.

Apply 200-700 lbs. 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. Non-uniform application may also result in unsatisfactory weed control. In areas where conventional tillage is practiced, a shallow incorporation of the mixture into the soil 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.

Precautions: To avoid crop injury, do not use the herbicide/fertilizer mixture on crops where burning occurs.

**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°F 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 rinseate is a violation of Federal law. Pesticide, spray mixture, or rinseate that cannot be used according to federal 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:**

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

**Non-refillable Container (greater than five gallons):** Non-refillable container. Do not reuse or refill this container. Offer for recycling, if available. Clean container promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water. 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 rinseate into application equipment or a mix tank or store rinseate for later use or disposal. Repeat this procedure two more times. Puncture and dispose of in a sanitary landfill, or by incineration, or by open burning, if allowed by state and local authorities. If burned, keep out of smoke.

**Refillable Container (greater than 55 gallons):** Refillable container. Refill this container with methanol 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 rinseate into application equipment or rinseate collection system. Repeat this rinsing procedure two more times. For final disposal, offer for recycling or reconditioning if appropriate, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

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

Follow Directions for Use of this product carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as manner of use or application, weather or crop conditions, presence of other materials or other influencing factors in the use of the product, which are beyond the control of Helm Agro US, Inc. or Seller. To the extent of applicable law, all such risks shall be assumed by Buyer and User, and Buyer and User agree to hold Helm and Seller harmless for any claims relating to such factors.

Helm 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 Helm, and Buyer and User assume the risk of any such use. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, HELM MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS STATED ABOVE.

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HELMET SPC

Group 15 Herbicide

Herbicide for weed control in cotton, peanuts, pod crops, potatoes, safflower, grain or forage sorghum, soybeans and tomatoes

ACTIVE INGREDIENT:
Metolachlor: 2-chloro-N-ethyl-N-(2-ethyl-6-methylphenyl)-N-methoxy-1-methylethylacetamide........ 86.4%

INERT INGREDIENTS: ................................................. 13.6%

TOTAL: .............................................................................. 100.0%

HELMET SPC contains 8.0 lbs. of active ingredient per gallon.

EPA Reg. No. 74530-73
EPA Est. No. 39578-TX-001

KEEP OUT OF REACH OF CHILDREN
CAUTION

See label booklet for First Aid, Precautionary Statements and Directions for Use including Storage and Disposal.

NET CONTENT
2.5 Gallon