

# **TANK MIX INSTRUCTIONS FOR USE WITH SHARPEN - AL, AR, DE, GA, IL, IN, IA, KS, KY, LA, MD, MI, MN, MS, MO, NE, NJ, NC, OH, OK, PA, SC, TN, WV, WI**

## General Information

### PRODUCT INFORMATION

AUTHORITY MAXX is a dispersible granule formulation to be mixed with water and sprayed for selective early preplant, preplant burndown, preplant incorporated or preemergence weed control in soybeans. When applied according to the instructions on this label, it will control many broadleaf weeds and provide partial control of annual grasses. Applications of AUTHORITY MAXX require rainfall or sprinkler irrigation to activate the herbicide. Degree of control and duration of effect depend on: rate used, weed spectrum, growing conditions at and following time of treatment, soil pH, texture, organic matter, moisture and precipitation. This label also contains use information which is applicable to all AUTHORITY MAXX use geography.

### BIOLOGICAL ACTIVITY

AUTHORITY MAXX rapidly inhibits the growth of susceptible weeds. Following an application, susceptible weeds may germinate and emerge, but growth then ceases and leaves become yellow 3-5 days after emergence. Death of leaf tissue and growing point will follow in some species while others will remain green but stunted and noncompetitive. AUTHORITY MAXX provides partial control of some annual grasses when used as an early preplant, preplant burndown, preplant incorporated or preemergence application, but other products may be needed to ensure adequate grass control.

Poor growing conditions such as excessive moisture, cool temperatures, and soil compaction or the presence of various pathogens may impact seedling vigor. Under these conditions the active ingredients in AUTHORITY MAXX, like other soil applied herbicides, may injure soybeans.

Best results are obtained if AUTHORITY MAXX is followed by rainfall or irrigation before weeds germinate. Several small rainfalls of less than 1/4" each are not as beneficial as one large rainfall of 1/2-1". If moisture is insufficient to activate the

herbicide, a rotary hoeing or shallow cultivation should be made after emergence of the crop while weeds are small enough to be controlled by mechanical means.

#### ROTATIONAL GUIDELINES FOR ALL AUTHORITY MAXX APPLICATIONS

When used as described, Table 1 describes the minimum length in months from the time of AUTHORITY MAXX application until AUTHORITY MAXX treated soil can be replanted to the crops listed in Table 1. Cover crops for soil health and erosion control can be planted at any time after an application of AUTHORITY MAXX, but do not use for food or feed. Residual activity of AUTHORITY MAXX may result in injury to some cover crop species if planted too soon following application. Consult your local University extension service for cover crop sensitivity to AUTHORITY MAXX. Prior to using AUTHORITY MAXX, consideration should be given to crop rotation plans. Crops other than soybeans may be extremely sensitive to low concentrations of AUTHORITY MAXX remaining in the soil the next planting season. Choice of rotation crop is restricted following application of AUTHORITY MAXX. When a recommended tank mix is used, consult the tank mix partner labels for recropping instructions and follow the directions that are most restrictive.

#### APPLICATION INFORMATION

##### Equipment/Spray Volumes

Ground Application: Apply uniformly by ground equipment with a properly calibrated sprayer equipped with fan-type nozzles or other appropriate nozzles. Adjust spray pressures to recommendations that are appropriate for the nozzle type being utilized. Sprayer and spray nozzles should be set to minimize the risk of fine droplets (<150 microns), yet achieve adequate coverage of existing weeds. Use nozzles that require screens no finer than 50 mesh. Use 10 to 40 gals of water per acre.

Continuous agitation in the spray tank is required to keep the product in suspension. Avoid overlap and shut off spray booms while starting, turning, slowing or stopping, as injury to the crop may result.

## Aerial Application

AUTHORITY MAXX may be applied by air using properly calibrated nozzle types and arrangements that will provide optimum coverage while producing minimal amounts of fine droplets. Apply sufficient spray volume to achieve adequate coverage. Apply a minimum of five (5) gallons of finished spray per acre. Do not apply when wind speed favors drift beyond the area intended for treatment.

## RESISTANCE MANAGEMENT

AUTHORITY MAXX is a premixture of sulfentrazone (WSSA Group 14) and chlorimuron-ethyl (WSSA Group 2) herbicides. When herbicides with the same mode of action are used repeatedly over several years to control the same weed species in the same field, naturally-occurring resistant weed biotypes may survive a correctly applied herbicide treatment, propagate, and become dominant in that field. These resistant weed biotypes may not be adequately controlled. Cultural practices such as tillage, preventing weed escapes from going to seed, and using herbicides with different modes of action within and between crop seasons can aid in delaying the proliferation and possible dominance of herbicide resistant weed biotypes.

## IMPORTANT PRECAUTIONS

1. Back to back application of ALS or ALS containing herbicides can occasionally result in residual herbicide stacking and potential crop injury. The applicator and grower are responsible and should be aware of previous herbicide use and potential interaction it may have with AUTHORITY MAXX application.
2. All direct or indirect contact (such as spray drift) to other crops or to land scheduled to be planted to crops other than soybeans should be avoided.
3. Ensure the seed furrow is closed and the seed covered on acres treated with AUTHORITY MAXX.
4. Soybean stunting may occur if excessive rainfall occurs after application but before soybeans emerge. Injury is more prevalent under poor drainage or compacted conditions or when soil is saturated for long periods of time. Soybeans rapidly outgrow stunting once favorable growing conditions return.
5. Do not apply AUTHORITY MAXX if there are visible signs of cracking due to soybean emergence, or serious crop injury such as but not limited to stand loss may result.
6. Seedling disease, nematodes, cold weather, deep planting (more than 2"), excessive moisture, high salt concentration, or drought may weaken soybean

seedlings and increase the possibility of crop injury.

7. Do not tankmix AUTHORITY MAXX with organophosphate insecticides. Do not apply AUTHORITY MAXX within 14 days before or after an organophosphate insecticide, as severe crop injury may occur.

8. When tank mixing, follow the most restrictive use rates and precautions of the mixing partners.

#### IMPORTANCE OF SOIL PH

Soil pH varies greatly, even within the same field. pH variations as much as 2 pH units are common. Composite soil samples taken across an entire field, such as those samples taken for soil fertility recommendations, may not detect areas of high pH. Sub-sampling is recommended for areas likely to have pH values higher than the field average. The following is a non-inclusive list of potential high pH areas where subsampling is recommended.

- Where different soil types are evident within a field, sample soil types separately.
- Where conditions vary within a field, sample areas separately, such as:
  - Areas bordered by limestone gravel roads,
  - River bottoms subject to flooding,
  - Low areas in hardpan soils where evaporative ponds may occur,
  - Eroded hillsides,
  - Along drain tile lines, and
  - Areas where drainage ditch spoil has been spread.
- Where lime has not been deeply incorporated, soil may exhibit significantly higher pH values in the upper 3 inches of soil. Composite soil samples taken at a 6-8 inch depth may not reflect the elevated pH near the surface. In these cases shallow sampling, the upper 3 inches, is advised.

Determine soil pH by laboratory analysis using a 1:1 soil:water suspension.

#### Limitations, Restrictions, and Exceptions

##### Tank Mix Instructions for Use with Sharpen

Authority Maxx at labeled use rates may be tank mixed with Sharpen at 1 fl oz/A as a preplant application only in reduced-till or no-till soybeans. Apply the tank mix 14 days or more before soybean planting. Refer to the product labels for weeds controlled. Do not apply this tank mix to coarse soils with  $\leq 2\%$  organic matter. For additional use directions, refer to the Authority Maxx label and Sharpen supplemental label.

Method

[Broadcast/Foliar Air](#)

[Broadcast/Foliar Ground](#)

Restricted Entry Interval

12 hours

Timings

[Preplant](#)