

## **SOYBEAN - COARSE (2 - 4 % ORGANIC MATTER)**

### 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

#### APPLICATION DIRECTIONS FOR USE ON SOYBEANS

- Apply AUTHORITY MAXX according to rates in Table 2 as directed for specific types of application and geographic areas.
- Follow all label restrictions regarding soil type, soil pH, organic matter, rotational crop intervals, geographic location, and weed pressure, in selecting the rate of AUTHORITY MAXX from Table 2.
- Use of AUTHORITY MAXX on soils which exceed pH 6.8 may result in unacceptable injury to the following rotational crop. AUTHORITY MAXX may be used on fields which are generally pH 6.8 or less, but which may contain isolated areas where the pH exceeds 6.8 only if the following rotational crop is soybeans.

#### RESTRICTIONS

Single application: Do not apply a full rate of AUTHORITY MAXX more than once per year.

Split application: Two applications totaling the full labeled rate of AUTHORITY MAXX (see Table 2) may be made per year.

This product is for use only in AL, AR, DE, GA, IA, IL, IN, KS, KY, LA, MD, MI, MN, MO, MS, NC, NE, NJ, OH, OK, PA, SC, TN, TX, VA, WI, and WV.

Do not apply to black belt soil of Alabama or Mississippi with a soil pH >6.8 or history of nutrient deficiency such as iron chlorosis, as injury may occur.

Do not follow AUTHORITY MAXX with a post-emergence application of another chlorimuron-ethyl containing herbicide in the same cropping season.

Do not apply AUTHORITY MAXX to soils with soil pH greater than 7.6.

Do not apply this product through any type of irrigation system.

Do not feed treated soybean forage or soybean hay to livestock.

Do not apply AUTHORITY MAXX if there are visible signs of cracking due to soybean emergence, or serious crop injury may result.

Do not apply or drain or flush equipment on or near desirable trees or other plants, or on areas where their roots may extend, or in locations where the chemical may be washed or moved into contact with their roots, or injury to desirable trees and plants may occur.

Do not tank mix AUTHORITY MAXX with organophosphate insecticides.

Do not apply AUTHORITY MAXX within 14 days before or after an application of an organophosphate insecticide, as severe crop injury may occur.

When tank mixing this product with other pesticides, follow the most restrictive of the labeling limitations and precautions of all products used in the mixture.

#### APPLICATION METHODS:

Do not apply AUTHORITY MAXX after the soybean crop has emerged or severe injury or death of the crop may occur. AUTHORITY MAXX may be applied by any of the methods listed in the label.

#### CONSERVATION TILLAGE:

Early Pre-plant in No-Till, Minimum Till, or Stale seedbed

AUTHORITY MAXX applied early Pre-plant will provide burndown of many existing weeds as well as preemergence broadleaf weed control.

When applied as a burndown treatment, AUTHORITY MAXX is rainfast after one hour. For burndown or control of existing vegetation, an appropriate burndown herbicide at labeled rates is recommended such as 2,4-D, glyphosate, glufosinate, paraquat, dicamba or Sharpen and should be applied in combination with AUTHORITY MAXX. Follow all label directions for the burndown herbicide including application timing, spray volume, adjuvants to achieve control of targeted weeds.

For applications of AUTHORITY MAXX made from 30 - 60 days before planting apply

the higher rate in the appropriate soil range from Table 2 depending on the soybean system being grown.

#### Preplant Incorporated

Uniformly incorporate AUTHORITY MAXX or AUTHORITY MAXX tank mixes no deeper than 2" prior to planting soybeans. If tank-mixing AUTHORITY MAXX with a companion herbicide, follow all label instructions for the companion herbicide, including proper incorporation of the companion herbicide in the top 2" of soil. Improper incorporation can result in erratic weed control or potential crop injury.

#### Preemergence

AUTHORITY MAXX may be applied at planting time or within 3 days after planting, but before seed emergence. AUTHORITY MAXX may be applied alone or in tank mix combinations with other registered soybean herbicides. When applied in tank mix combinations, follow applicable use directions, including application rates, precautions and restrictions of each product in the mixture. The seed furrow should be completely closed and seed covered before any applications of AUTHORITY MAXX.

#### Fall Application and Spring Pre-plant Burndown of Broadleaf Weeds

AUTHORITY MAXX can provide for some increased burndown activity on emerged weeds in no-till applications, but is not intended to replace part or all of an appropriate preplant burndown program. For control of the weeds listed below in no-till / minimum till fields, AUTHORITY MAXX must be tank-mixed or used in combination with a full burndown program.

This may include 2,4-D alone or in combination with Aim1, dicamba, glyphosate, glufosinate, paraquat, or other appropriate burndown herbicides in tank-mixes at their appropriate rate for the size and species of weeds present. Reduced rates of AUTHORITY MAXX and/or the corresponding burndown partner herbicides can result in weed escapes and unsatisfactory performance.

For burndown control, pick the appropriate rate from Rate Table 2 and apply with:

- For complete burndown of emerged annual grasses or broadleaf weeds or for burndown of weeds not listed above, AUTHORITY MAXX must be tank mixed with: Sharpen, glyphosate, glufosinate, paraquat, 2,4-D alone or in combination with Aim or other appropriate burndown herbicides. Some weed species have developed resistance to one or more herbicide classes. The burndown tank-mix with AUTHORITY MAXX must contain one or more herbicides that will control targeted weed species and resistant bio-types.

- Crop Oil Concentrate (COC) or Methylated Seed Oil (MSO) at 1% v/v 1 gallon per 100 gallons of spray solution, or Non-ionic surfactant (NIS) at 1 qt./100 gallon of spray solution.
- In addition to the specific adjuvants above, other adjuvants may be used if they provide the same or similar functions as those previously mentioned. The addition of other adjuvants or fertilizers such as ammonium sulfate (AMS) may aid in control of weeds when used with appropriate companion herbicides. Consult specific companion herbicides for additional adjuvant, and fertilizer recommendations when applying for burndown of existing vegetation.
- Use flat fan nozzles or other appropriate nozzle types and a minimum of 10 gallons of water per acre. Where dense vegetation or heavy crop residues are present, increasing the spray volume to 15-20 gallons per acre or more may improve spray coverage and weed control.

#### Method

[Broadcast/Foliar Air](#)

[Broadcast/Foliar Ground](#)

[Broadcast/Foliar Air](#)

[Broadcast/Foliar Ground](#)

[Broadcast/Foliar Air](#)

[Broadcast/Foliar Ground](#)

[Broadcast/Foliar Air](#)

[Broadcast/Foliar Ground](#)

[Broadcast/Foliar Air](#)

[Broadcast/Foliar Ground](#)

#### Rates

[field\\_rates 0](#)

[field\\_rates 1](#)

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#### Restricted Entry Interval

12 hours

#### Soils

[Coarse](#)

[Loamy Sand](#)

[Sandy Loam](#)

Tillages

Conventional

No-Tillage

Minimum

Timings

Preplant

Preplant Incorporated

Preemergence (Weed)

Early Pre-plant

Early Pre-plant