

Code 1799



herbicide

Dispersible Granules

By Weight

Active Ingredients

56.3%

Sulfentrazone

N-[2,4-dichloro-5-[4-(difluoromethyl)-
-4,5-dihydro-3-methyl-5-oxo-1H-1,2,4-
-triazol-1-yl]phenyl]methanesulfonamide 46.9%

Chlorimuron Ethyl

Ethyl 2-[[[[(4-chloro-6-methoxypyrimidin-
2-yl)amino]carbonyl]amino]
sulfonyl]benzoate 9.4%

Inert Ingredients

43.7%

TOTAL

100.0%

EPA Reg. No. 279-3179

U.S. Pats. 4,394,506, 4,547,215 & 4,818,275

**KEEP OUT OF REACH OF CHILDREN
CAUTION**

**STATEMENT OF
PRACTICAL TREATMENT**

If swallowed: Call a physician or Poison Control Center. Drink 1 or 2 glasses of water and induce vomiting by touching back of throat with finger. If person is unconscious, do not give anything by mouth or induce vomiting.

If inhaled: Remove victim to fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth. Get medical attention.

If on skin: Wash with plenty of soap and water. Get medical attention.

If in eyes: Flush eyes with plenty of water. Call a physician if irritation persists.

For medical emergencies involving this product, call toll-free 1-800-331-3148. (continued in next column)



FMC Corporation
Agricultural Products Group
Philadelphia PA 19103

1/98

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

Harmful if swallowed, inhaled, or absorbed through skin. Causes moderate eye irritation. Avoid breathing dust, vapor or spray mist. Avoid contact with skin, eyes or clothing. Wash thoroughly with soap and water after handling.

PERSONAL PROTECTIVE EQUIPMENT

Applicators and other handlers must wear:

Long-sleeved shirt and long pants.

Waterproof gloves.

Shoes plus socks.

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product. Do not reuse them. 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 CONTROL STATEMENTS

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

USER SAFETY RECOMMENDATIONS

Users should: Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

ENVIRONMENTAL HAZARDS

This pesticide is toxic to marine/estuarine invertebrates. Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Drift and runoff may be hazardous to terrestrial and aquatic plants in neighboring areas. Do not contaminate water when disposing of equipment washwaters or rinsate.

Groundwater advisory: This chemical is known to leach through soil into groundwater under certain conditions as a result of label use. Use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination.

Do not use on coarse soils classified as sand which have less than 1% organic matter.

Surface water advisory: Sulfentrazone can contaminate surface water through spray drift. Under some conditions, sulfentrazone may also have a high potential for runoff into surface water (primarily via dissolution in runoff water), for several to many months post-application. These include poorly draining or wet soils with readily visible slopes toward adjacent surface waters, frequently flooded areas, areas overlying extremely shallow groundwater, 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-lying tile drainage systems that drain to surface waters.

PHYSICAL/CHEMICAL HAZARDS

Do not use or store near heat or open flame.

IMPORTANT

Injury to or loss of desirable trees or vegetation may result from failure to observe the following: 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. Do not use on lawns, walks, driveways, tennis courts or similar areas. Prevent drift of spray to desirable plants. Do not contaminate any body of water. Keep from contact with fertilizers, insecticides, fungicides and seeds during storage.

Prior to using Authority Broadleaf herbicide, consideration should be given to crop rotation plans. Crops other than soybeans may be extremely sensitive to low concentrations of Authority Broadleaf remaining in the soil the next planting season. Choice of rotation crop is restricted following application of Authority Broadleaf. (See "ROTATIONAL CROP GUIDELINES" for your geographical region.)

Thoroughly clean Authority Broadleaf from application equipment immediately after use and prior to spraying crops other than soybeans. Failure to remove even small amounts of Authority Broadleaf from application equipment may result in injury to subsequently sprayed crops.

DIRECTIONS FOR USE

It is a violation of federal law to use this product in a manner inconsistent with its labeling.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

Proper handling instructions: This product may not be mixed or loaded within 50 feet of any wells (including abandoned wells and drainage wells), sink holes, perennial or intermittent streams and rivers, and natural or impounded lakes and reservoirs. This setback does not apply to properly capped or plugged abandoned wells and does not apply to impervious pads or properly diked mixing/loading areas.

Operations that involve mixing, loading, rinsing, or washing of this product into or from pesticide handling or application equipment or containers within 50 feet of any well are prohibited unless conducted on an impervious pad constructed to withstand the weight of the heaviest load that may be positioned on or moved across the pad. Such a pad shall be designed and maintained to contain any product spills or equipment leaks, container or equipment rinse or washwater, and rainwater that may fall on the pad. Surface water shall not be allowed to either flow over or from the pad, which means the pad must be self contained. The pad shall be sloped to facilitate material removal. An unroofed pad shall be of sufficient capacity to contain at a minimum 110% of the capacity of the largest pesticide container or application equipment on the pad. A pad that is covered by a

roof of sufficient size to completely exclude precipitation from contact with the pad shall have a minimum containment capacity of 100% of the capacity of the largest pesticide container or application equipment on the pad. Containment capacities as described above shall be maintained at all times. The above specific minimum containment capacities do not apply to vehicles when delivering pesticide shipments to the mixing/loading site. States may have in effect additional requirements regarding wellhead setbacks and operational containment.

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

Do not use flood irrigation to apply or incorporate this product.

Product must be used in a manner which will prevent back siphoning in wells, spills or improper disposal of excess pesticide, spray mixtures or rinsates.

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 12 hours.

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:

Coveralls over long-sleeved shirt and long pants, waterproof gloves, and shoes plus socks.

FOR USE ON SOYBEANS ONLY

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

Do not apply aerially.

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

Do not apply Authority Broadleaf more than once per season.

GENERAL INFORMATION

Authority Broadleaf Herbicide is a dispersible granule formulation, packaged as a blend in a 17 pound bag or premeasured in a 25.6 ounce soluble pack, to be mixed with water and sprayed for selective preemergence and preplant incorporated 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.

Preemergence and preplant incorporated applications of Authority Broadleaf 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 contains specific use directions for two distinct geographical use areas for Authority Broadleaf. The **Midwest States** and the **Southern States** and are defined under APPLICATION METHODS. This label also contains general use information which is applicable to all Authority Broadleaf use geography.*

BIOLOGICAL ACTIVITY

Authority Broadleaf rapidly inhibits the growth of susceptible weeds. Following application of preplant incorporation or preemergence treatment, 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 Broadleaf provides partial control of some annual grasses when used preplant or preemergence 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 Broadleaf, like other soil applied herbicides, can injure soybeans. However, these early injury symptoms are short lived and do not result in yield reductions.

WEEDS CONTROLLED

- PREEMERGE: ALL STATES

When used as directed Authority Broadleaf will provide control of the following weed species:

Carpetweed	Nutsedge, Purple
Cocklebur	Nutsedge, Yellow
Copperleaf, Hophornbeam	Pigweed
Copperleaf, Virginia	Palmer amaranth
Florida beggarweed	Redroot
Jimsonweed	Smooth
Kochia	Spiny amaranth
Lambsquarters	Poinsettia, wild
Mallow, Venice	Prickly sida (teaweed)
Morningglory	Purslane, common
Annual	Ragweed, common
Ivyleaf	Ragweed, giant
Entireleaf	Senna, Coffee
Pitted	Smartweed (annual)
Smallflower	Spurge, Spotted
Tall	Sunflower, wild
Mustard, wild	Velvetleaf
Nightshade, Black	Waterhemp, common
Nightshade, Eastern Black	Waterhemp, tall
Nightshade, Hairy	

Weed species which can germinate deep in the soil such as pitted morningglory, sicklepod, cocklebur, and giant ragweed or other weeds; such as nutsedge, which may emerge at various times during the growing season may require a cultivation or an application of Skirmish herbicide for season-long control.

When used as directed Authority Broadleaf will provide partial control of the following weeds:

Barnyardgrass	Mexicanweed
Burcucumber	Panicum, Texas and fall
Crabgrass	Sesbania, Hemp
Foxtail, species	Sicklepod
Goosegrass	Signalgrass, broadleaf
Johnsongrass, seedling	

For additional instructions on weed control, see comments following Table 1 on page 4.

USE RATES - ALL STATES

Apply Authority Broadleaf according to Rate Tables for types of application and specific geographic areas.

RATE TABLE 1

Early Pre-plant, Early Pre-plant Burndown, Pre-plant Incorporated, Preemergence:

Conservation or Conventional Tillage

Broadcast Rate Soil Texture	Ounces Product Per Acre*	
	Organic Matter 1/2 - 2 %.	2-4 %.
Coarse:	5.1**	5.8
Loamy Sand, Sandy Loam	(5 Acres/ Soluble Pack)	(4.5 Acres/ Soluble Pack)
Medium:	6.4	6.8
Loam, Silt loam, Silt, Sandy Clay Loam	(4 Acres/ Soluble Pack)	(3.8 Acres/ Soluble Pack)
Fine:	6.8	7.9
Silty Clay Loam, Clay Loam, Clay	(3.8 Acres/ Soluble Pack)	(3.2 Acres/ Soluble Pack)

* Use the next highest rate (next fewest acres per soluble pack) when:

No-Till when heavy residues exist

Early applications are planned

Heavy weed pressures are known to exist

** For coarse soils with organic matter content 1/2 - 2% use 5.8 oz/A (4.5 A/soluble pack) for season long control of morning-glories, cocklebur and improved suppression of yellow nutsedge.

For improved control of pitted morningglory, cocklebur, prickly sida, and giant ragweed a tankmix of Authority Broadleaf and Command is recommended.

For improved control of nutsedges and pitted morningglory in the South, use 7.9 oz/A (3.2 A/soluble pack) on medium soils, or 8.8 oz/A (2.9 A/soluble pack) on fine soils, only in the Southern states as listed below.

Number of Authority Broadleaf Soluble Packets To Use To Treat Various Acreages At Standard Rates.

To determine the number of soluble packs of Authority Broadleaf for any acreage, select the use rate (oz/A) and multiply it by the number of acres to be treated, then divide this by 25.6. The result is the number of soluble packs required to treat the given acreage. **DO NOT attempt to use partial Soluble Packets. Round up or down as indicated below.**

For example, to treat 60 acres at the 5.1 oz rate:

$$\frac{5.1 \text{ oz/A} \times 60 \text{ A}}{25.6 \text{ oz/soluble pack}} = 11.95^* \text{ or } 12 \text{ soluble packs}$$

To treat 40 acres at the 5.8 oz rate:

$$\frac{5.8 \text{ oz/A} \times 40 \text{ A}}{25.6 \text{ oz/soluble pack}} = 9.06^* \text{ or } 9 \text{ soluble packs}$$

* Round up for fractions of soluble packs that are 0.5 or over, and down when less than 0.5.

APPLICATION METHODS - ALL STATES

Do not apply Authority Broadleaf after the soybean crop has emerged or severe injury or death of the crop will occur.

Authority Broadleaf may be applied by any of the methods listed below. These methods apply to both geographical use areas, the Midwest States and the Southern States.

Midwest States : Iowa, Illinois, Indiana, Kansas, Michigan, Missouri, Nebraska, Ohio, Oklahoma, and Pennsylvania.

Southern States : Alabama, Arkansas, Delaware, Georgia, Kentucky, Louisiana, Maryland, Mississippi, Missouri bootheel, New Jersey, North Carolina, South Carolina, Tennessee, Texas, Virginia, and West Virginia.

RAINFALL ACTIVATION FOR PREEMERGENCE ACTIVITY

Best results are obtained if Authority Broadleaf is applied to moist soil and followed by rainfall or irrigation (~1") before weeds germinate. Several small rainfalls of less than 1/4" each are not as beneficial as one large rainfall of 1/2-1". On dry soil, more moisture is required for activation (1-2") before weed emergence. 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.

CONSERVATION TILLAGE: EARLY PRE-PLANT IN NO-TILL, MINIMUM TILL, OR STALE SEEDBED

Authority Broadleaf applied Early Pre-plant (no more than 30 days prior to planting, but after the emergence of broadleaf weeds and small annual grasses) will provide burndown of many existing weeds as well as normal preemergence broadleaf weed control. **When used for burndown, Authority Broadleaf is rainfast after one hour.**

For specific burndown claims, adjuvant recommendations, Authority Broadleaf use rates and other tankmixes, see:

Midwest section - Pre-plant Burndown Directions.

Southern Section - Burndown Directions.

PREPLANT INCORPORATED

Uniformly incorporate Authority Broadleaf or Authority Broadleaf tankmixes no deeper than the top 1-2" of soil prior to planting soybeans. Use equipment suited to proper incorporation into the top 1-2 inches of soil, e.g.: Do-all, field cultivator, or rotterra. Authority Broadleaf can be tank mixed with "Command 4EC" and applied preplant incorporated. Refer to the "Command" label for specific use instructions. If tank-mixed with a grass herbicide such as a Dinitroaniline (DNA) like "Treflan", "Sonalan", or "Prowl" or an acetanilide such as "Dual", "Frontier", or "Lasso", follow label instructions for proper incorporation of the grass herbicide into the top 1 to 2" of soil. Improper soil incorporation can result in erratic weed control or crop injury. If soil is dry, rainfall (~1") is required to activate preplant incorporated herbicides such as Authority Broadleaf before weed emergence.

NOTE: Consult Lasso¹, Dual², Frontier³, Prowl⁴, Treflan⁵, Sonalan⁵, or Command⁶ labels for additional weeds controlled, use rates and instructions, when Authority Broadleaf is used in conjunction with these herbicides.

For Pre-plant Incorporated Authority Broadleaf use rates see **Table 1**.

PREEMERGENCE

Authority Broadleaf can be applied preemergence in combination with such herbicides as "Command 3ME", "Lasso", "Dual", "Frontier", "Prowl" or following the use of a preplant incorporated grass herbicide such as "Treflan" or "Sonalan". Consult labels for rates and use instructions.

For Authority Broadleaf Preemergence use rates see **Table 1**.

SEQUENTIAL APPLICATIONS - "AUTHORITY BROADLEAF" FOLLOWED BY AN APPLICATION OF "SKIRMISH"

Authority Broadleaf may be applied Early Pre-plant, Pre-plant Incorporated, or Preemergence and then follow as needed with a Postemergence application of SKIRMISH. Refer to the SKIRMISH product label for weed claims, directions for use, and restrictions.

For rates of Authority Broadleaf followed by SKIRMISH see:

Midwest Section - **Rate Table 2**

Southern Section - **Rate Table 3**

"AUTHORITY BROADLEAF" + "MATADOR" TANKMIXES FOR EARLY PRE-PLANT BURNDOWN OF GRASSES IN SOYBEANS - ALL MIDWESTERN AND SOUTHERN STATES

Authority Broadleaf may be tankmixed with MATADOR herbicide or MATADOR + 2,4-D LVE to provide early pre-plant burndown control of small foxtails, fall panicum, barnyardgrass, volunteer corn, shattercane, and wild proso millet.

For grass up to 3" in height, use 2.5 oz MATADOR

For grass >3" up to 5" in height, use 5 oz MATADOR

Timing of Applications

- Authority Broadleaf + MATADOR tankmix may be applied
 - **in Midwest states**, from 30 days before planting up to just before soybean emergence
 - **in Southern states**, from 30 days before planting up to just before soybean emergence
- Authority Broadleaf + MATADOR + 2,4-D LVE tankmix may be applied.
 - **in all states**, between 7 days and 30 days before planting, but no earlier than 30 days before planting, depending on the rate of 2,4-D LVE used

Consult the 2,4-D label for the appropriate Pre-plant interval based on the rate used.

To apply Authority Broadleaf + MATADOR tankmixes:

- use flat fan nozzles only
- must include a petroleum based crop oil concentrate at a rate of 1 gallon per 100 gallons of spray solution (1% v/v)
- an ammonium nitrogen fertilizer may be added but is not required for performance.

MIDWEST STATES - SPECIFIC USE DIRECTIONS

- Authority Broadleaf may be applied at planting or no more than 30 days before planting.

- Authority Broadleaf may be used in the following Midwest States : Indiana, Illinois, Iowa, Kansas, Michigan, Missouri (except bootheel), Nebraska, Ohio, Oklahoma, and Pennsylvania.

Giving careful consideration to soil type, soil pH, organic matter, rotational crop intervals, geographic location, and weed pressure, select a rate of Authority Broadleaf from Rate Table 1. Apply Authority Broadleaf Early Preplant, Preplant Incorporated, or Preemergence, in Conservation or Conventional Tillage, as directed in the Application Methods Section of this label.

- Do not apply to soil with greater than pH 6.8.

Use of Authority Broadleaf on soils which exceed pH 6.8 may result in unacceptable injury to the following crop. Authority Broadleaf 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 crop is soybeans or a FMC recommended chlorimuron ethyl resistant corn variety.

FOR SEASON-LONG GRASS CONTROL - MIDWEST STATES

Authority Broadleaf may not provide season-long preemergence control of grasses. For improved grass control, Authority Broadleaf may be:

- followed as needed by a postemergence grass herbicide such as MATADOR herbicide.
- Tank mixed with other grass herbicides such as "Lasso" (or other products containing the active ingredient alachlor and registered for use on soybeans), "Dual", "Prowl", "Command", "Frontier", Commence⁶, "Treflan" (or other products containing the active ingredient trifluralin and registered for use on soybeans), or "Sonalan".

Refer to the label of the tankmix partner or the post grass herbicide for specific information regarding use, rates, pre-plant intervals, application timing, grasses controlled, precautions, restrictions and other information. Follow the product label with the most restrictive labeling when using Authority Broadleaf in combination with other herbicides.

PRE-PLANT BURNDOWN OF BROADLEAF WEEDS AND ANNUAL GRASSES - MIDWEST STATES

In addition to providing season-long preemergence control of certain broadleaf weeds and partial control of other broadleaf weeds and annual grasses, Authority Broadleaf will provide burndown control of the following broadleaf weeds up to 3" and annual grasses up to 1".

Annual grasses	Nightshade species
Chickweed	Pennycress
Dandelion	Pigweeds
Garlic, wild	Ragweed, common
Henbit	Ragweed, giant
Lambsquarters	Shepherd's-purse
Lettuce, prickly	Smartweeds, annual
Marestail	Waterhemp species
Mustard, wild	

For Burndown control, pick the appropriate rate from **Rate Table 1** and apply with:

- **crop oil concentrate at 1% v/v (1 gallon per 100 gallons of spray mix), and**
- **use flat fan nozzles and a minimum of 20 gallons of water per acre.**

For burndown of larger annual grasses or broadleaf weeds exceeding 2-3", or for burndown of weeds not listed above, Authority Broadleaf may be tankmixed with :

MATADOR
MATADOR + 2,4-D (LVE)
Roundup¹ Ultra
Bronco¹
Gramoxone Extra⁷
2,4-D (LVE)

To select the proper tankmix product, identify the weeds which need to be controlled and consult the product labels to determine which product is needed. Consult the companion tankmix herbicide label for use instructions, rates, precautions, restrictions, and other use information. For Authority Broadleaf tankmixes with "Roundup Ultra", substitute 0.5% NIS for the 1% COC.

2,4-D (LVE) is the isooctyl (2-ethylhexyl) ester of 2,4-Dichlorophenoxyacetic acid. This product is sold under a variety of trade names. It has a minimum preplant interval of 7-30 days based on the rate used. Consult the label of the product used for specific information on this interval.

For instructions on how to prevent spray drift see section on Spray Drift Management on page 10.

SEQUENTIAL APPLICATIONS WITH FMC POSTEMERGENCE HERBICIDE - MIDWEST STATES

Authority Broadleaf may be followed, as needed, by sequential applications of SKIRMISH using **Rate Table 2** below. Refer to the SKIRMISH label for all claims, use directions, and restrictions associated with these products.

RATE TABLE 2

Sequential applications: Authority Broadleaf followed by a single Postemergence Application

For Midwest States:

IA, IL, IN, KS, MI, MO, NE, OH, OK, PA

Broadcast Rate Ounces Product Per Acre	Sequential Post Application (oz/a)
3.6 - 5.8 (7 - 4.5 Acres/Soluble pack)	SKIRMISH up to 3/4 oz,
6.4 - 6.8 (4 - 3.8 Acres/Soluble pack)	SKIRMISH up to 2/3 oz,
7.9 (3.2 Acres/Soluble pack)	SKIRMISH up to 1/4 oz,

Number of AUTHORITY BROADLEAF Soluble Packets To Use To Treat Various Acreages At Reduced Rates for Sequential Application.

To determine the number of soluble packs of Authority Broadleaf for any acreage, select the use rate (oz/A) and multiply it by the number of acres to be treated, then divide this by 25.6. The result is the number of soluble packs required to treat the given acreage. **DO NOT attempt to use partial Soluble Packets. Round up or down as indicated below.**

For example, to treat 60 acres at the 5.8 oz rate:

$$\frac{5.8 \text{ oz/A} \times 60 \text{ A}}{25.6 \text{ oz/soluble pack}} = 13.59^* \text{ or } 14 \text{ soluble packs}$$

To treat 60 acres at the 3.6 oz rate:

$$\frac{3.6 \text{ oz/A} \times 60 \text{ A}}{25.6 \text{ oz/soluble pack}} = 8.44^* \text{ or } 8 \text{ soluble packs}$$

* Round up for fractions of soluble packs that are 0.5 or over, and down when less than 0.5.

ROTATIONAL GUIDELINES FOR ALL AUTHORITY BROADLEAF APPLICATIONS - MIDWEST STATES

The following recropping table pertains to the states of Illinois, Indiana, Iowa (except Nicolett-Clarion-Webster soils), Kansas, Michigan, Missouri (except bootheel), Nebraska, Ohio, Oklahoma, and Pennsylvania. When used as described in the Midwestern section of this label, the table describes the minimum length in months from the time of Authority Broadleaf application until Authority Broadleaf treated soil can be replanted to the crops listed in the table. When a recommended tank mix is used, consult the tankmix partner labels for recropping instructions and follow the directions that are most restrictive.

ROTATIONAL GUIDELINE 1

MIDWEST STATES:

ALL LABELED AUTHORITY BROADLEAF USES

(All uses of Authority Broadleaf as described in the Midwest Section of this label : including Authority Broadleaf Sequentials with FMC Post products)

For the Midwest States : IA, IL, IN, KS, MI, MO, NE, OH, OK, PA

Crop	Recropping Interval in Months
Soybeans †	Anytime
Wheat, Barley	4
Alfalfa	12
Rice	10
Sorghum	12
Tomato (transplant)	12
Field Corn *	10
Field Corn, IR (Resistant)**	10
Dry Beans	12
Clover, Cotton, Cucumber, Flax, Pumpkin, Sunflower, Sweet Corn, Watermelon, Cabbage, Lentils, Mustard	18‡
Canola (rapeseed), Carrot, Onion, Potato, Sugar Beets and any other crop not listed	30‡

* Field Corn is defined to include only that corn grown for grain or silage, popcorn, and seed corn. However, because seed corn inbred lines may vary in their sensitivity to trace amounts of herbicide carryover, FMC cannot warrant that seed corn can be recropped without damage or yield loss. Users should seek the advice of their seed corn company agronomists regarding inbred sensitivity to herbicides prior to planting any inbred lines.

** Field Corn, IR (Resistant) indicates those field corn hybrids offered by Pioneer Hi-Bred International, Inc., or Ciba Seeds, which carry the designation "IR" or "IMR" in the hybrid name.

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

‡ Crops that have rotational intervals greater than 12 months after a Authority Broadleaf application are the result of crop injury concerns.

SOUTHERN SECTION

- SPECIFIC USE DIRECTIONS

- Authority Broadleaf may be applied at planting or no more than 30 days before planting.

Authority Broadleaf may be used in the following

Southern States: Alabama, Arkansas, Delaware, Georgia, Kentucky, Louisiana, Maryland, Mississippi, Missouri, bootheel, New Jersey, North Carolina, South Carolina, Tennessee, Texas, Virginia and West Virginia.

- Do not use Authority Broadleaf where cotton will be planted the following year.

- For maximal rotational flexibility, apply to soils with a pH 7.0 or less

- Do not apply to Black Belt Soils of Alabama and Mississippi with a soil pH greater than 7.0 or history of nutrient deficiency such as iron chlorosis, as injury may occur.
- Injury to soybeans may occur if Authority Broadleaf is used on soils having a calcareous surface layer or pH greater than 7.5.

Giving careful consideration to soil type, soil pH, organic matter, rotational crop intervals, geographic location, and weed pressure, select a rate of Authority Broadleaf from **Rate table 1**. Apply Authority Broadleaf Early Preplant, Preplant Incorporated or Preemergence as directed in the Application Methods section of this label.

FOR SEASON-LONG GRASS CONTROL - SOUTHERN STATES

Authority Broadleaf may not provide season-long preemergence control of grasses. For improved grass control, Authority Broadleaf may be:

- followed as needed by a postemergence grass herbicide such as MATADOR herbicide.
- Tank mixed with "Lasso" (or other products containing the active ingredient alachlor and registered for use on soybeans), "Bronco", "Dual", "Prowl", "Command 4EC", "Command 3ME", "Frontier", "Commence", "Treflan", or "Sonalan".

Refer to the label of the tankmix partner or the post grass herbicide for specific information regarding use, rates, pre-plant intervals, application timing, grasses controlled, precautions, restrictions and other information. Follow the product label with the most restrictive recropping restrictions when using Authority Broadleaf in combination with other herbicides.

FOR BURNDOWN AND/OR RESIDUAL WEED CONTROL IN STALE SEEDBED OR CONSERVATION TILLAGE PRODUCTION SYSTEMS - SOUTHERN STATES

For Burndown control of small annual grasses and broadleaf weeds, use one soluble pack of Authority Broadleaf per 6 to 7 acres and apply at any time prior to planting. Select the higher rate for larger weeds. Use a minimum of 10 gallons of spray solution per acre by ground. Thorough coverage of the weeds is essential for best results.

Always include one of the following adjuvants:

- **Nonionic surfactant at a rate of 0.25% (1 quart per 100 gallons of spray solution)**
- **Crop oil concentrate at a rate of 1% v/v (1 gallon per 100 gallons of spray solution)**

When burndown plus residual control is desired, Authority Broadleaf may be applied at planting or up to 30 days prior to planting. Select acres, based on soil type from Rate Table 1.

For burndown of weeds and grasses not listed on page 6, or for burndown of larger weeds and grasses, it is recommended that Authority Broadleaf be tankmixed with either 2,4-D, "Gramoxone Extra", Starfire⁷, or "Roundup Ultra". Consult the product labels for specific use instructions, rates, restrictions, limitations, and precautions.

REDUCED RATE OF "AUTHORITY BROADLEAF" FOLLOWED BY PLANNED APPLICATION OF "SKIRMISH" HERBICIDE - SOUTHERN STATES

Authority Broadleaf herbicide may be applied preplant incorporated or preemergence at reduced rates when followed by one planned postemergence treatment of SKIRMISH, herbicide. Select a rate of Authority Broadleaf, according to soil type from **Rate Table 3**.

RATE TABLE 3

Reduced Authority Broadleaf Rates followed by planned post application of SKIRMISH

Authority Broadleaf rates for the Southern States of AL, AR, DE, GA, KY, LA, MD, MS, MO BOOTHEEL, NJ, NC, SC, TN, TX, VA, WV

Broadcast Rate	Ounces Product Per Acre
Soil Texture	1/2 - 4% Organic Matter
Coarse:	
Loamy Sand,	4.6 - 5.8
Sandy Loam	(5.5 - 4.5 Acres/Soluble Pack)
Medium:	
Loam, Silt loam, Silt,	4.6- 6.8
Sandy Clay Loam	(5.5 - 3.8 Acres/Soluble Pack)
Fine:	
Silty Clay Loam,	6.8
Clay Loam, Clay	(3.8 Acres/Soluble Pack)

Number of AUTHORITY BROADLEAF Soluble Packets To Use To Treat Various Acreages At Standard Rates.

To determine the number of soluble packs of Authority Broadleaf for any acreage, select the use rate (oz/A) and multiply it by the number of acres to be treated, then divide this by 25.6. The result is the number of soluble packs required to treat the given acreage. **DO NOT attempt to use partial Soluble Packets. Round up or down as indicated below.**

For example, to treat 60 acres at the 5.5 oz rate:

$$\frac{5.5 \text{ oz/A} \times 60 \text{ A}}{25.6 \text{ oz/soluble pack}} = 12.89^* \text{ or } 13 \text{ soluble packs}$$

To treat 60 acres at the 4.0 oz rate:

$$\frac{4.0 \text{ oz/A} \times 60 \text{ A}}{25.6 \text{ oz/soluble pack}} = 9.38^* \text{ or } 9 \text{ soluble packs}$$

* Round up for fractions of soluble packs that are 0.5 or over, and down when less than 0.5.

ROTATIONAL GUIDELINES FOR ALL "AUTHORITY BROADLEAF" APPLICATIONS - SOUTHERN STATES

The following recropping table pertains to the states of Alabama, Arkansas, Georgia, Louisiana, Mississippi, Texas, Missouri bootheel, Delaware, Kentucky, Maryland, New Jersey, North Carolina, South Carolina, Tennessee, Virginia, and West Virginia.

When used as described in the Southern section of this label, the table describes the minimum length in months from the time of Authority Broadleaf application before Authority Broadleaf treated soil can be replanted to the crops listed in the table.

When a recommended tank mix is used, consult the tankmix partner labels for recropping instructions and follow the directions that are most restrictive.

ROTATIONAL GUIDELINE 2

SOUTHERN STATES: ALL LABELED

Authority Broadleaf USES

(all Authority Broadleaf uses described in the Southern Section of this label, including Authority Broadleaf followed by SKIRMISH)

For the Southern States of AL, AR, DE, GA, KY, LA, MD, MS, MO BOOTHEEL, NJ, NC, SC, TN, TX, VA & WV

Group I - soil pH 7.0 or less

- States of AL, AR, GA, LA, MS or TX
- States of DE, KY, MD, MO Bootheel, NJ, NC, SC, TN, VA or WV - Use rate 6.4 oz./A or less. If use rate is above 6.4 oz./A, move to a 30 month rotation for Canola, Carrot, Onion, Potato, Sugarbeets and any other crop not listed above.

Group II - soil pH greater than 7.0 to 7.5

- States of AL, AR, GA, LA, MS or TX
- States of DE, KY, MD, MO Bootheel, NJ, NC, SC, TN, VA or WV

Crops	Group I	Group II
Soybeans †	Anytime	Anytime
Wheat, Barley	4	4
Alfalfa	12	18‡
Clover	18	18‡
Field Corn *	10	18‡
Field Corn, IR (Resistant)**	10	10
Sorghum	12	18‡
Rice	10	18‡
Tomato (Transplant)	12	18‡
Cotton, Cucumber, Flax, Pumpkin, Sunflower, Sweet Corn, Watermelon, Cabbage, Canola (rapeseed), Lentils, Mustard, Carrot, Onion, Potato, Sugar Beets and any crop not listed above	18‡	30‡

* Field Corn is defined to include only that corn grown for grain or silage, popcorn, and seed corn. However, because seed corn inbred lines may vary in their sensitivity to trace amounts of herbicide carryover, FMC cannot warrant that seed corn can be recropped without damage or yield loss.

Users should seek the advice of their seed corn company agronomists regarding inbred sensitivity to herbicides prior to planting any inbred lines.

** Field Corn, IR (Resistant) indicates those field corn hybrids offered by Pioneer Hi-Bred International, Inc., or Ciba Seeds, which carry the designation "IR" or "IMR" in the hybrid name.

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

‡ Crops that have rotational intervals greater than 12 months after a Authority Broadleaf application are the result of crop injury concerns.

APPLICATION INFORMATION

EQUIPMENT / SPRAY VOLUMES

Ground Application: Apply uniformly by ground equipment with a properly calibrated low pressure (20 to 40 psi) fixed-boom sprayer equipped with fan-type nozzles and 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 material in suspension. Avoid overlap and shut off spray booms while starting, turning, slowing or stopping, as injury to the crop may result.

SPRAY TANK PREPARATION

It is important that spray equipment is clean and free of existing pesticide deposits before using Authority Broadleaf. Follow the spray tank cleanout procedures specified on the label of product previously sprayed. If no cleanout procedure is provided, follow the cleanout procedure in **SPRAYER CLEANUP** section of this label.

Mixing Instructions

1. Fill the tank 1/4 to 1/3 full of water.
2. While agitating, add the required amount of Authority Broadleaf.
3. Once the Authority Broadleaf is fully dispersed, maintain agitation and continue filling tank with water. (Soluble packs should dissolve completely within 5 minutes.)
4. **Authority Broadleaf should be thoroughly mixed with water in the spray tank before adding any other material.** As the tank is filling and any Soluble Packs have dissolved, add (in order): other herbicide(s), the required spray adjuvant, and the nitrogen fertilizer where required.
5. Apply Authority Broadleaf spray preparation within 24 hours of mixing to avoid product degradation.
6. If the mixture has settled, thoroughly reagitate before using.
7. To improve mixing with liquid fertilizers prepare a slurry in water before adding to spray tank.

Additional Use and Handling Information for Authority Broadleaf When Packaged in Water Soluble Packets

Soluble Packs are contained in waterproof, resealable plastic bags. The individual Soluble Packs will dissolve completely in water. Open the outer resealable plastic bag, remove the number of 25.6 ounce Soluble Packs required for the application.

DO NOT attempt to open or use partial Soluble Packets.

Soluble Pack Handling Precautions:

The outer resealable plastic bag is NOT soluble in water. DO NOT place it in the spray tank.

Excessive handling of the packs, or exposure to moisture, will cause breakage.

Do not touch the packs with wet hands or place them on wet surfaces.

Protect unused Soluble Packs by resealing them in the resealable bag.

SPRAYER CLEANUP

To avoid subsequent injury to desirable crops, thoroughly clean all mixing and spray equipment immediately following applications of Authority Broadleaf as follows:*

1. Drain tank; thoroughly hose down the interior surfaces of the tank; then flush tank, boom, and hoses with clean water for a minimum of 5 minutes.
2. Partially fill the tank with water and add one of the cleaning agents listed below. Complete filling the tank with water, then flush the cleaning solution through the boom, hoses, and nozzles. Add water to completely fill the tank and allow to agitate or recirculate for at least 15 minutes. Again, flush the boom, hoses and nozzles, and drain the tank.
3. Remove the nozzles and screens and clean separately in a bucket containing water and the cleaning agent.
4. Repeat Step 2.
5. Thoroughly rinse the tank with clean water for a minimum of 5 minutes, flushing water through the boom and hoses.

NOTE: Use any of the following cleaning agents. Carefully read and follow the individual cleaning agent instructions.

1. One gallon of household ammonia (contains 3% active) per 100 gallons of water.
2. Nutra-Sol⁸
3. Loveland Tank and Equipment Cleaner⁹
4. Protank Cleaner¹⁰
5. Chem-Tank Cleaner and Neutralizer¹¹
6. Incide-Out¹²
7. Tank-Aid¹³

*A steam cleaning of fiberglass or stainless steel aerial spray tanks is recommended prior to performing the above cleanout procedure to facilitate the removal of any caked deposits.

THE IMPORTANCE OF SOIL PH - ALL STATES

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.

SPRAY DRIFT MANAGEMENT - ALL STATES

The interaction of many equipment and weather-related factors determines the potential for spray drift. The applicator is responsible for considering all these factors when making application decisions.

AVOIDING SPRAY DRIFT IS THE RESPONSIBILITY OF THE APPLICATOR.

IMPORTANCE OF DROPLET SIZE

The most effective way to reduce drift potential is to apply large droplets (>150 - 200 microns). The best drift management strategy is to apply the largest droplets that provide sufficient coverage and control. The presence of sensitive species nearby, the environmental conditions, and pest pressure may affect how an applicator balances drift control and coverage. **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** sections of this label.

Controlling Droplet Size - General Techniques

- **Volume** - Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets.
- **Pressure** - Use the lower spray pressures recommended for the nozzle. Higher pressure reduces droplet size and does not improve canopy penetration. **WHEN HIGHER FLOW RATES ARE NEEDED, USE A HIGHER-CAPACITY NOZZLE INSTEAD OF INCREASING PRESSURE.**
- **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.

BOOM HEIGHT

Setting the boom at the lowest labeled height (if specified) which provides uniform coverage reduces the exposure of droplets to evaporation and wind. For ground equipment, the boom should remain level with the crop and have minimal bounce.

WIND

Drift potential increases at wind speeds of less than 3 mph (due to inversion potential) or more than 10 mph. However, many factors, including droplet size and equipment type determine drift potential at any given wind speed. **AVOID GUSTY OR WINDLESS CONDITIONS.**

Note: Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they affect spray drift.

TEMPERATURE AND HUMIDITY

When making applications in hot and dry conditions, set up equipment to produce larger droplets to reduce effects of evaporation.

TEMPERATURE INVERSIONS

Drift potential is high during a temperature inversion.

Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain close to the ground and move laterally in a concentrated cloud. Temperature inversions are characterized by increasing temperature with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog; however, if fog is not present, inversions can also be identified by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.

SHIELDED SPRAYERS

Shielding the boom or individual nozzles can reduce the effects of wind. However, it is the responsibility of the applicator to verify that the shields are preventing drift and not interfering with uniform deposition of the product.

AIR ASSISTED GROUND FIELD CROP SPRAYERS

Air assisted field crop sprayers carry droplets to the target via a downward directed air stream. Some may reduce the potential for drift, but if a sprayer is unsuitable for the application and/or set up improperly, high drift potential can result. It is the responsibility of the applicator to determine that a sprayer is suitable for the intended application, is configured properly, and that drift is not occurring.

Note: Air assisted field sprayers can affect product performance by affecting spray coverage and canopy penetration. Consult the application equipment section of this label to determine if use of an air assisted sprayer is recommended.

RESISTANCE MANAGEMENT- ALL STATES

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 - ALL STATES

1. Because most crops are highly sensitive to Authority Broadleaf, all direct or indirect contact (such as spray drift) to crops or to land scheduled to be planted to crops other than soybeans should be avoided.
2. 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.
3. Do not apply Authority Broadleaf if there are visible signs of cracking due to soybean emergence, or serious crop injury may result.
4. 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.
5. Do not apply to land that has been or will be treated with ALLY¹⁴, GLEAN¹⁴, or FINESSE¹⁴ herbicide in Nebraska and Kansas without observing the rotational crop intervals for those products.
6. 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.
7. Do not use on lawns, walks, driveways, tennis courts or similar areas. Prevent drift of spray to desirable plants. Do not contaminate any body of water. Keep from contact with fertilizers, insecticides, fungicides and seeds during storage.
8. Thoroughly clean Authority Broadleaf from application equipment immediately after use and prior to spraying crops other than soybeans. Failure to remove even small amounts of Authority Broadleaf from application equipment may result in injury to subsequently sprayed crops.
9. Do not tank mix Authority Broadleaf with organophosphate insecticides. Do not apply Authority Broadleaf within 14 days before or after an application of an organophosphate insecticide, as severe crop injury may occur.

STORAGE AND DISPOSAL

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

Storage: Store product in original container only. Do not contaminate water, other pesticides, fertilizer, food or feed in storage. Store in a cool, dry place and avoid excess heat.

Product Disposal: If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency or the Hazardous Waste representative at the nearest EPA Regional office for guidance.

Container Disposal: Do not reuse the outer box or the resealable plastic bag. When all soluble packets are used, the outer packaging can be considered clean and may be disposed of in a sanitary landfill or by incineration, or by other methods approved by local, state and national authorities. If the resealable bag contains the product in any way, the bag must be triple-rinsed with clean water. Add the rinsate to the spray tank and dispose of the outer wrap as described above.

1. Trademark of Monsanto Agricultural Products Co.
2. Trademark of Ciba-Geigy Corp.
3. Manufactured by Sandoz Chemicals Inc.
4. Trademark of American Cyanamid Corp.
5. Trademark of Dow Elanco
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8. Compounded for Thomas G. Kilfoil Co., Inc.
9. Trademark of Loveland Industries, Inc.
10. Manufactured for Cenex/Land 'O Lakes Agronomy Co.
11. Manufactured by Farmbelt Chemicals, Inc.
12. Trademark of Precision Laboratories, Inc.
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(1799-1/6/98-A)

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Dealers Should Sell in Original Packages Only.

Terms of Sale or Use: On purchase of this product buyer and user agree to the following conditions:

Warranty: FMC makes no warranty, expressed or implied, concerning the use of this product other than indicated on the label. Except as so warranted the product is sold as is. Buyer and user assume all risk of use and/or handling and/or storage of this material when such use and/or handling and/or storage is contrary to label instructions.

Directions and Recommendations: Follow directions carefully. Timing and method of application, weather and crop conditions, mixture with other chemicals not specifically recommended and other influencing factors in the use of this product are beyond the control of the seller and are assumed by the buyer at his own risk.

Use of Product: FMC's recommendations for the use of this product are based upon tests believed to be reliable. The use of this product being beyond the control of the manufacturer, no guarantee, expressed or implied is made as to the effects of such or the results to be obtained if not used in accordance with directions or established safe practice.

Damages: Buyer's or user's exclusive remedy for damages for breach of warranty or negligence shall be limited to direct damages not exceeding the purchase price paid and shall not include incidental or consequential damages.