

GLYPHOSATE	GROUP	9	HERBICIDES
METOLACHLOR	GROUP	15	HERBICIDES
MESOTRIONE	GROUP	27	HERBICIDES

# Magna

A Post-Emergence Herbicide For Weed Control in Glyphosate-Resistant Field Corn  
and Pre-Emergence Weed Control in Grain Sorghum

<b>ACTIVE INGREDIENTS:</b>	<b>WT. BY %</b>
Glyphosate, potassium salt* .....	20.50%
Metolachlor** .....	20.50%
Mesotrione*** .....	2.05%
<b>OTHER INGREDIENTS:</b> .....	56.95%
<b>TOTAL:</b> .....	100.00%

Active ingredients per U.S. gallon: glyphosate acid 2.09 lbs., metolachlor 2.09 lbs., and mesotrione 0.209 lb.

\*CAS No. 70901-12-1 \*\*CAS No. 51218-45-2 \*\*\*CAS No. 104206-82-8

## KEEP OUT OF REACH OF CHILDREN CAUTION

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle.  
(If you do not understand this label, find someone to explain it to you in detail.)

FIRST AID	
<b>IF SWALLOWED:</b>	<ul style="list-style-type: none"> <li>• Call a poison control center or doctor immediately for treatment advice.</li> <li>• Have person sip a glass of water if able to swallow.</li> <li>• Do not induce vomiting unless told to do so by a poison control center or doctor.</li> <li>• Do not give anything by mouth to an unconscious person.</li> </ul>
<b>IF ON SKIN OR CLOTHING:</b>	<ul style="list-style-type: none"> <li>• Take off contaminated clothing.</li> <li>• Rinse skin immediately with plenty of water for 15-20 minutes.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
<b>IF IN EYES:</b>	<ul style="list-style-type: none"> <li>• Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li> <li>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eyes.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
HOTLINE NUMBER	
Have the product container or label with you when calling a poison control center or doctor or going for treatment. For emergency information concerning this product, call your poison control center at 1-800-222-1222.	

See label booklet for complete Precautionary Statements, Directions For Use, and Storage and Disposal.

Sale, use, and distribution of this product in Nassau and Suffolk Counties in the State of New York is prohibited.

Manufactured For:

Sharda USA LLC 

7217 Lancaster Pike, Suite A  
Hockessin, Delaware 19707

EPA Reg. No. 83529-111

EPA Est. No.  11773-IA-001

39578-TX-001

Net Contents:

2.5 Gallons

265 Gallons

## PRECAUTIONARY STATEMENTS

### HAZARDS TO HUMANS AND DOMESTIC ANIMALS CAUTION

Harmful if swallowed. Harmful if absorbed through skin. Causes moderate eye irritation. Avoid contact with skin, eyes, or clothing. This product may cause skin sensitization reactions in some people. Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove and wash contaminated clothing before reuse.

#### PERSONAL PROTECTIVE EQUIPMENT (PPE)

##### Applicators and other handlers must wear:

- Coveralls over short-sleeved shirt and short pants
- Chemical-resistant gloves made of Barrier Laminate, Butyl Rubber  $\geq$  14 mils, Nitrile Rubber  $\geq$  14 mils, Neoprene Rubber  $\geq$  14 mils, Polyvinyl Chloride (PVC)  $\geq$  14 mils or Viton  $\geq$  14 mils
- Chemical-resistant footwear plus socks
- Chemical-resistant headgear for overhead exposure
- Chemical-resistant apron when cleaning equipment, mixing, or loading

Follow manufacturer's instructions for cleaning and/or maintaining PPE. If there are no such instructions for washables, clean with detergent and hot water. Keep and wash PPE separately from other laundry.

#### ENGINEERING CONTROL STATEMENTS

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)(4-6)]. 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 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 thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

#### ENVIRONMENTAL HAZARDS

For terrestrial uses, 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 wash water or rinsate.

##### Groundwater Advisory

The active ingredient, metolachlor, has the potential to leach through soil into groundwater under certain conditions as a result of agricultural use. Groundwater may be contaminated if this product is used in areas where soils are permeable, particularly where the water table is shallow.

##### Surface Water Advisory

The active ingredients in this product have the potential to contaminate surface water through ground spray drift. Under some conditions, the active ingredients may also have a potential for runoff into surface water (primarily via dissolution in runoff water) for several months post-application. These include poorly drained or wet soils with readily visible slopes toward adjacent surface waters, frequently flooded areas, and areas overlaying 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 overlaying tile drainage systems that drain to surface water.

A level, well maintained vegetative buffer strip between areas to which this product is applied and surface water features such as ponds, streams, and springs will reduce the potential for contamination of water from runoff. Runoff of this product will be reduced by avoiding applications when rainfall is forecasted to occur within 48 hours. Sound erosion control practices will reduce this product's contribution to surface water contamination.

##### Mixing and Loading Instructions

Take care when using this product to prevent back siphoning into wells, spills, or improper disposal of excess pesticide, spray mixtures, or rinsates.

Check valves or anti-siphoning devices must be used on mixing equipment.

This product may not be mixed/loaded or used within 50 feet of wells, including abandoned wells, drainage wells, and sink holes. 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 wash water, and rain water 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-specified minimum containment capacities do not apply to vehicles when delivering pesticide shipments to the mixing/loading site.

#### PHYSICAL AND CHEMICAL HAZARDS

Do not use or store near heat or open flame.

Do not store, mix or apply this product or spray solutions of this product in unlined steel (except stainless steel), galvanized steel containers, or sprayer tanks. This product or spray solutions of this product will react with these containers and tanks and produce hydrogen gas which may form a highly combustible mixture. This gas mixture could flash or explode, causing serious personal injury, if ignited by spark, open flame, lighted cigarette, welder torch, or other ignition source.

Mix, store and apply spray solutions of this product using only stainless steel, fiberglass, plastic, or plastic-lined steel containers.

#### 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.

**FAILURE TO FOLLOW THE DIRECTIONS FOR USE AND PRECAUTIONS ON THIS LABEL MAY RESULT IN POOR WEED CONTROL, CROP INJURY, OR ILLEGAL RESIDUES.**

**Not for Use in Nassau and Suffolk Counties in New York State.**

#### 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:

- Coveralls over short-sleeved shirt and short pants
- Chemical-resistant gloves made of Barrier Laminate, Butyl Rubber ≥ 14 mils, Nitrile Rubber ≥ 14 mils, Neoprene Rubber ≥ 14 mils, Polyvinyl Chloride (PVC) ≥ 14 mils or Viton ≥ 14 mils
- Chemical-resistant footwear plus socks
- Chemical-resistant headgear for overhead exposure

#### PRODUCT INFORMATION

**Magna** is a systemic, post-emergence herbicide that provides contact control followed by residual control of weeds in glyphosate-resistant field corn. **Magna** is also a pre-emergence herbicide for control of weeds in grain sorghum. **Magna** is a combination of the herbicides glyphosate, mesotrione and metolachlor.

Following a post-emergence application of **Magna**, susceptible weeds uptake the herbicide through the treated foliage and stop growth soon after treatment. **Magna** also provides control through movement in the soil and/or in the foliage of emerged weeds. Complete death of the weeds may take up to 14 days.

When application is made to glyphosate-resistant corn, **Magna** provides 21 to 28 days of residual control of newly emerging susceptible weeds (see the **WEEDS CONTROLLED** table) through root and shoot absorption.

Do not make application under conditions that 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, avoid treating powdery dry or light soils when conditions are favorable for wind erosion. Under these conditions, ensure that the soil surface is settled by rainfall or irrigation first. Do not apply to impervious substrates such as paved or highly compacted surfaces. Do not use tailwater from the first flood or furrow irrigation of treated fields to treat non-target crops unless at least ½ inch of rainfall has occurred between application and the first irrigation.

#### USE RESTRICTIONS:

- Do not cultivate corn within 7 days before or after a **Magna** application as weed control from the **Magna** application may be reduced.
- Do not make application of **Magna** through any type of irrigation system.
- Do not make application of **Magna** with suspension fertilizers.
- Do not make application of **Magna** to glyphosate-resistant corn with urea ammonium nitrate (UAN) as the carrier.
- Do not make application of more than 4 pts. of **Magna** per acre per growing season to glyphosate-resistant corn.
- Do not make application of more than 6 pts. of **Magna** per acre per growing season to grain sorghum.
- Do not make application of **Magna** to ground that has been or will be treated with mesotrione in the same season.
- Tank must be mixed and agitated before dispensing.

#### USE PRECAUTIONS:

- Application of **Magna** may be made post-emergence to glyphosate-resistant (e.g., Roundup Ready®, Agrisure™ GT) corn only. An application of **Magna** to a corn hybrid that is not glyphosate-resistant will result in crop death.
- When weeds are stressed due to drought, heat, lack of fertility, flooding, or prolonged cool temperatures, control can be reduced or delayed since the weeds are not actively growing. Weed escapes or re-growth may occur when application is made under prolonged stress conditions. Optimum weed control will be obtained if an application of **Magna** is made following label directions when weeds are actively growing.
- If an activating rain (0.25") is not received within 7 - 10 days after the post-emergence application, residual weed control will be reduced.
- Avoid drift onto adjacent crops. Severe damage or destruction may be caused by contact of **Magna** to any vegetation (including leaves, green stems, exposed non-woody roots, or fruit) of crops, trees, and other desirable plants to which treatment is not intended.
- Severe corn injury resulting in yield loss may occur if **Magna** is applied post-emergence to corn crops that were treated with terbufos, chlorpyrifos or other organophosphate containing soil insecticides.
- Severe corn injury resulting in yield loss may occur if **Magna** is applied foliar post-emergence in a tank mix with any organophosphate or carbamate insecticide.
- Severe corn injury resulting in yield loss may occur if any foliar organophosphate or carbamate insecticide is applied post-emergence within 7 days before or 7 days after **Magna** application.
- Severe corn injury may occur if **Magna** is applied post-emergence in a tank mix with emulsifiable concentrate (EC formulation) products.
- Tank mix application of **Magna** may be made with pyrethroid insecticides such as lambda-cyhalothrin.
- To avoid contamination, ensure that the spray system is thoroughly cleaned with water and a commercial tank cleaner before and after each use.

#### RESISTANCE MANAGEMENT

**Magna** contains three active ingredients: glyphosate, metolachlor and mesotrione, classified in Group 9 – Glycine (inhibitor of 5-enolpyruvyl-shikimate-3-phosphate synthase [EPSPS]); Group 15 – chloroacetamide (mitosis inhibitor); and Group 27 - triketone (inhibitor of 4-hydroxyphenyl-pyruvatedioxygenase [4-HPPD]) chemical classes, respectively.

Herbicide resistance is defined as the inherited ability of a plant to survive and reproduce following exposure to a dose of herbicide normally lethal to the wild type. In a plant, resistance may be naturally occurring or induced by such techniques as genetic engineering or selection of variants produced by tissue culture or mutagenesis. Any weed population may contain or develop plants that are naturally resistant to **Magna** and other Group 9, 15, or 27 herbicides. Weed species with acquired resistance to Group 9, 15, or 27 herbicides may eventually dominate the weed population if Group 9, 15, or 27 herbicides are used repeatedly in the same field or in successive years as the primary method of control for targeted species. This may result in partial or total loss of control of those species by **Magna** or other Group 9, 15, or 27 herbicides.

To delay herbicide resistance, consider the below best practices for resistance management:

- Plant into weed-free fields and keep fields as weed-free as possible.
- To the extent possible, use a diversified approach toward weed management. Whenever possible, incorporate multiple weed-control practices such as mechanical cultivation, biological management practices, and crop rotation.
- Fields with difficult to control weeds should be rotated to crops that allow the use of herbicides with alternative mechanisms of action or different management practices.
- To the extent possible, do not allow weed escapes to produce seeds, roots or tubers. Manage weed seeds at harvest and post-harvest to prevent a buildup of the weed seed-bank.
- Prevent field-to-field and within-field movement of weed seed or vegetative propagules. Thoroughly clean plant residues from equipment before leaving fields.
- Prevent an influx of weeds into the field by managing field borders.
- Identify weeds present in the field through scouting and field history and understand their biology. The weed-control program should consider all of the weeds present.
- Difficult to control weeds may require sequential applications of herbicides with differing mechanisms of action.
- Apply this herbicide at the correct timing and rate needed to control the most difficult weed in the field.
- Use a broad-spectrum soil-applied herbicide with a mechanism of action that differs from this product as a foundation in a weed-control program. Do not use more than two applications of this or any other herbicide with the same mechanism of action within a single growing season unless mixed with an herbicide with another mechanism of action with an overlapping spectrum for the difficult-to-control weeds.
- If resistance is suspected, treat weed escapes with an herbicide with a different MOA or use non-chemical methods to remove escapes.
- Monitor treated weed populations for loss of field efficacy.
- Scout field(s) before and after application.
- Report lack of performance to Sharda USA LLC or representative.

Indicators of possible herbicide resistance include: (1) failure to control a weed species normally controlled by the herbicide at the dose applied, especially if control is achieved on adjacent weeds; (2) a spreading patch of non-controlled plants of a particular weed species; (3) surviving plants mixed with controlled individuals of the same species.

Contact your local sales representative, extension agent, or certified crop advisors to find out if suspected resistant weeds to this MOA have been found in your region. If resistant biotypes of target weeds have been reported, use the application rates of this product specified for your local conditions. Tank mix products so that there are multiple effective mechanisms of action for each target weed.

### Glyphosate Resistance

Some naturally occurring weed biotypes resistant to glyphosate may exist through normal genetic variability in any weed population. The repeated use of herbicides with the same mode of action is known to lead, under certain conditions, to a selection of resistant weeds. Certain agronomic practices reduce the likelihood that resistant weed populations will develop and integrated strategies are known to manage such problem weeds.

Glyphosate is one of the active ingredients in **Magna**, so glyphosate-resistance management is critical. **Magna** will control broadleaf weeds that are showing increased tolerance or resistance to glyphosate. When applying **Magna** to broadleaf weeds that are suspected or known to be resistant to glyphosate, tank mix with atrazine or dicamba to provide an additional mode of action. Follow all label directions and restrictions for the atrazine product tank mixed with **Magna**.

**Magna** will not provide control of emerged grasses that are resistant to glyphosate. For control of glyphosate-resistant grass weeds, a weed control program that includes a pre-emergence grass herbicide will reduce the dependence on glyphosate.

The Best Weed Management practice includes the diversification of glyphosate-dependent weed control programs with alternative mode of action herbicides or cultural practices.

1. In Roundup Ready (RR™) corn systems do not use more than two applications of a glyphosate-based herbicide over a two-year period. Diversify with alternative mode of action herbicides and/or cultural practices.
2. Use alternative (non-glyphosate) burndown and/or residual herbicides for RR crops likely to require more than one application of glyphosate.
3. To help manage RR-resistant volunteers, rotate RR crops with conventional or non-RR crops.
4. Use full labeled rates of glyphosate and tank mix partners. Minimize weed escapes.
5. Monitor treated weed populations for any loss of field efficacy.
6. Contact your local extension specialist, certified crop advisor, and/or Sharda USA LLC representative for herbicide resistance management and/or integrated weed management practices for specific crops and resistant weed biotypes.

WEEDS CONTROLLED			
For best results, make application of <b>Magna</b> to actively growing weeds. For the best protection of the corn crop's yield potential, make application of <b>Magna</b> prior to the weeds reaching 4" in height or length. Susceptible weeds that emerge soon after an application of <b>Magna</b> will be controlled for an additional 21 to 28 days.			
C = Control			
PC = Partial Control			
Weeds Controlled with Post-Emergence Applications of Magna			
Common Name	Scientific Name	3.6 - 4.0 Pts./Acre plus NIS plus AMS	3.6 - 4.0 Pts./Acre plus atrazine plus NIS plus AMS
		Apply to weeds less than 4" in height or length	Apply to weeds 4 - 10" in height or length
BROADLEAVES			
Amaranth, Palmer	<i>Amaranthus palmeri</i>	C <sup>1</sup>	C
Amaranth, Powell	<i>Amaranthus powellii</i>	C	C
Amaranth, Spiny	<i>Amaranthus spinosus</i>	C	C
Anoda, Spurred	<i>Anoda cristata</i>	C	C
Atriplex	<i>Chenopodium orach</i>	C	C
Beggarweed, Florida	<i>Desmodium tortuosum</i>	C	C
Buckwheat, Wild	<i>Polygonum convolvulus</i>	C <sup>2</sup>	PC
Buffalobur	<i>Solanum rostratum</i>	C	C
Burcucumber	<i>Sicyos angulatus</i>	C	PC
Carpetweed	<i>Mollugo verticillata</i>	C	C
Chickweed, Common	<i>Stellaria media</i>	C	C
Chickweed, Mouseear	<i>Cerastium vulgatum</i>	C	C
Cocklebur, Common	<i>Xanthium strumarium</i>	C	C
Copperleaf, Hophornbeam	<i>Acalypha ostryifolia</i>	C	C
Crotalaria, Showy	<i>Crotalaria spectabilis</i>	C	C
Croton, Tropic	<i>Croton glandulosus</i>	C	C
Dandelion, Common	<i>Taraxacum officinale</i>	C <sup>5</sup>	PC
Dock, Curly	<i>Rumex crispus</i>	C	PC
Eclipta	<i>Eclipta prostrata</i>	C	C
Galinsoga	<i>Galinsoga parviflora</i>	C	C

<sup>1</sup>For glyphosate-resistant weeds such as common ragweed, giant ragweed, horseweed (marestail), Palmer amaranth and waterhemp, the addition of atrazine will improve control.

<sup>2</sup>Maximum runner length of <4".

<sup>5</sup>Plant diameter of <4" for control.

Weeds Controlled with Post-Emergence Applications of Magna			
Common Name	Scientific Name	3.6 - 4.0 Pts./Acre plus NIS plus AMS	3.6 - 4.0 Pts./Acre plus atrazine plus NIS plus AMS
		Apply to weeds less than 4" in height or length	Apply to weeds 4 - 10" in height or length
<b>BROADLEAVES (cont.)</b>			
Groundcherry, Smooth	<i>Physalis longifolia</i>	C	PC
Groundsel, Common	<i>Senecio vulgaris</i>	C	C
Hemp	<i>Cannabis sativa</i>	C	C
Henbit	<i>Lamium amplexicaule</i>	C	C
Horseweed (Marestail)	<i>Coryza canadensis</i>	C <sup>1</sup>	C
Jimsonweed	<i>Datura stramonium</i>	C	C
Johnsongrass	<i>Sorghum halepense</i>	C	C
Knotweed, Prostrate	<i>Polygonum aviculare</i>	C	C
Kochia	<i>Kochia scoparia</i>	C <sup>6</sup>	PC
Lambsquarters, Common	<i>Chenopodium album</i>	C	C
Mallow, Venice	<i>Hibiscus trionum</i>	C	C
Marshelder	<i>Iva xanthifolia</i>	C	C
Morningglory, Entireleaf	<i>Ipomoea hederacea</i>	C <sup>2</sup>	PC
Morningglory, Ivyleaf	<i>Ipomoea hederacea</i>	C <sup>2</sup>	PC
Morningglory, Pitted	<i>Ipomoea lacunose</i>	C <sup>2</sup>	PC
Morningglory, Tall	<i>Ipomoea purpurea</i>	C <sup>2</sup>	PC
Mustard, Wild	<i>Brassica kaber</i>	C	C
Nightshade, Black	<i>Solanum nigrum</i>	C	C
Nightshade, Eastern Black	<i>Solanum ptycanthum</i>	C	C
Nightshade, Hairy	<i>Solanum sarrachoides</i>	C	C
Pennycress, Field	<i>Thlaspi arvense</i>	C	C
Pigweed, Prostrate	<i>Amaranthus blitoides</i>	C	C
Pigweed, Redroot	<i>Amaranthus retroflexus</i>	C	C
Pigweed, Smooth	<i>Amaranthus hybridus</i>	C	C
Pigweed, Tumble	<i>Amaranthus albus</i>	C	C
Pokeweed, Common	<i>Phytolacca americana</i>	C	C
Potato, Volunteer	<i>Solanum</i> spp.	C	C
Puncturevine	<i>Tribulus terrestris</i>	C	PC
Purslane, Common	<i>Portulaca oleracea</i>	C	C
Pusley, Florida	<i>Richardia scabra</i>	C	PC
Ragweed, Common	<i>Ambrosia artemisiifolia</i>	C <sup>1</sup>	C
Ragweed, Giant	<i>Ambrosia trifida</i>	C <sup>1</sup>	C
Senna, Coffee	<i>Senna occidentalis</i>	C	C
Sesbania, Hemp	<i>Sesbania exaltata</i>	C	C
Shepherd's Purse	<i>Capsella bursa-pastoris</i>	C	C
Sicklepod	<i>Senna obtusifolia</i>	C <sup>4</sup>	C <sup>4</sup>
Sida, Prickly (Teaweed)	<i>Sida spinosa</i>	C	PC
Smartweed, Ladysthumb	<i>Polygonum persicaria</i>	C	C
Smartweed, Pale	<i>Polygonum lapathifolium</i>	C	C

<sup>1</sup>For glyphosate-resistant weeds such as common ragweed, giant ragweed, horseweed (marestail), Palmer amaranth and waterhemp, the addition of atrazine will improve control.  
<sup>2</sup>Maximum runner length of <4".  
<sup>3</sup>Will not provide residual control.  
<sup>4</sup>Control may be reduced at the button stage or when less than 2" in height.  
<sup>6</sup>Control may be reduced at the button stage or when less than 2" in height.

Weeds Controlled with Post-Emergence Applications of Magna			
Common Name	Scientific Name	3.6 - 4.0 Pts./Acre plus NIS plus AMS	3.6 - 4.0 Pts./Acre plus atrazine plus NIS plus AMS
		Apply to weeds less than 4" in height or length	Apply to weeds 4 - 10" in height or length
<b>BROADLEAVES (cont.)</b>			
Smartweed, Pennsylvania	<i>Polygonum pennsylvanicum</i>	C	C
Spurge, Prostrate	<i>Euphorbia humistrata</i>	C	C
Spurge, Spotted	<i>Euphorbia maculata</i>	C	C
Sunflower, Common	<i>Helianthus annuus</i>	C	C
Thistle, Canada	<i>Cirsium arvense</i>	C	C
Thistle, Russian	<i>Salsola iberica</i>	C <sup>6</sup>	C
Velvetleaf	<i>Abutilon theophrasti</i>	C	C
Waterhemp, Common	<i>Amaranthus rudis</i>	C <sup>1</sup>	C
Waterhemp, Tall	<i>Amaranthus tuberculatus</i>	C <sup>1</sup>	C
<b>GRASSES</b>			
Barnyardgrass	<i>Echinochloa crus-galli</i>	C	C
Bluegrass, Annual	<i>Poa annua</i>	C	C
Brome, Downy	<i>Bromus tectorum</i>	C	C
Cheat	<i>Bromus secalinus</i>	C	C
Corn, Volunteer (Non-GT)	<i>Zea mays</i>	C <sup>3</sup>	C <sup>3</sup>
Crabgrass, Large	<i>Digitaria sanguinalis</i>	C	C
Crabgrass, Smooth	<i>Digitaria ischaemum</i>	C	C
Crowfootgrass	<i>Dactyloctenium aegyptium</i>	C	C
Cupgrass, Woolly	<i>Eriochloa villosa</i>	C <sup>4</sup>	C <sup>4</sup>
Foxtail, Bristly	<i>Setaria verticillata</i>	C	C
Foxtail, Giant	<i>Setaria faberi</i>	C	C
Foxtail, Green	<i>Setaria viridis</i>	C	C
Foxtail, Yellow	<i>Setaria pumila</i>	C	C
Goosegrass	<i>Eleusine indica</i>	C	C
Millet, Wild-Proso	<i>Panicum miliaceum</i>	C	C
Oat, Wild	<i>Avena fatua</i>	C	C
Panicum, Fall	<i>Panicum dichotomiflorum</i>	C	C
Panicum, Texas	<i>Panicum texanum</i>	C	C
Sandbur, Field	<i>Cenchrus incertus</i>	C	C
Sandbur, Southern	<i>Cenchrus echinatus</i>	C	C
Shattercane	<i>Sorghum bicolor</i>	C	C
Signalgrass, Broadleaf	<i>Brachiaria platyphylla</i>	C	C
Sorghum, Grain (Milo)	<i>Sorghum bicolor</i>	C	C
Starbur, Bristly	<i>Acanthospermum hispidum</i>	C	C
Stinkgrass	<i>Eragrostis cilianensis</i>	C	C
Witchgrass	<i>Panicum capillare</i>	C	C
<b>SEDGES</b>			
Nutsedge, Yellow	<i>Cyperus esculentus</i>	C	PC
Nutsedge, Purple	<i>Cyperus rotundus</i>	C	PC

<sup>1</sup>For glyphosate-resistant weeds such as common ragweed, giant ragweed, horseweed (marestalk), Palmer amaranth and waterhemp, the addition of atrazine will improve control.

<sup>3</sup>Will not control Glyphosate-Resistant volunteer corn.

<sup>4</sup>Will not provide residual control.

<sup>6</sup>Control may be reduced at the button stage or when less than 2" in height.

### ROTATIONAL CROPS

If the corn or grain sorghum crop is lost or destroyed after treatment of **Magna**, use and follow the rotational guidelines below. If **Magna** is applied sequentially or in a tank mix with other herbicides, see the rotational guidelines on all other herbicide labels and follow the most restrictive guidelines.

#### Time Interval Between Magna Application and Replanting or Planting of Rotational Crop

Crop	Rotational Interval (Months)
Corn (All Types); Sweet Sorghum; Grain Sorghum (Concep® Treated Only)	Anytime
Barley; Oats; Rye; Wheat	4 ½
Alfalfa; Asparagus; Cotton; Kentucky Bluegrass Grown For Seed; Peanuts; Peas <sup>1,2</sup> ; Potato; Rhubarb; Rice; Ryegrass (Perennial And Annual) Grown For Seed; Snap Beans <sup>1,2</sup> ; Soybeans; Sunflowers; Tall Fescue Grown For Seed; Tobacco	10
Canola; Flax	12
All Other Rotational Crops	18

<sup>1</sup>Plant these rotational crops only if the following criteria below have been met. If all criteria are not met, plant peas and snap beans a minimum of 18 months following **Magna** application.

- A minimum of 20" of rainfall plus irrigation has been received between application and planting of the rotational crop.
- Soil pH is 6.0 or greater.
- Application of **Magna** applied no later than June 30<sup>th</sup> the year preceding rotational crop planting.
- No other HPPD herbicides (e.g., mesotrione, atrazine, s-metolachlor, topramezone, isoxaflutole, tembotrione, or thiencazabone-methyl) were applied the year prior to planting peas and snap beans.

<sup>2</sup>Do not plant peas or snap beans on sand, sandy loam or loamy sand soils in Minnesota and Wisconsin.

### APPLICATION PROCEDURES

Refer to the **CROP USE DIRECTIONS** section for specific crop instructions.

#### Adjuvants

For applications made post-emergence to glyphosate-resistant corn or burndown applications to grain sorghum, add a nonionic surfactant (NIS) at 1 - 2 qts. per 100 gals. of water (0.25 - 0.5% v/v) to the spray solution. Use the higher rate of NIS when weeds are growing under stress conditions (e.g., cool temperatures, dry weather, etc.).

In addition to NIS, add spray grade ammonium sulfate (AMS) at 8.5 - 17.0 lbs. per 100 gals. of water. When using liquid AMS products, use a rate that delivers an AMS equivalent of 8.5 - 17.0 lbs. per 100 gals. of water.

#### Precaution:

The use of **Magna** with urea ammonium nitrate (UAN) instead of ammonium sulfate (AMS) will result in post-emergence glyphosate-resistant corn injury and reduced grass weed control.

#### Ground Applications

Ensure that spray nozzles are uniformly spaced, the same size and type, and provide accurate and uniform application. Use spray nozzles that provide medium to coarse droplet size to provide good coverage and avoid drift. Good weed coverage is essential for optimum weed control. Base boom height for broadcast over-the-top applications on the height of the crop – at least 15" above the crop canopy.

Flat fan (of 80° or 110°) or Turbo Tee Jet nozzles will provide optimum coverage. Do not use flood jet nozzles or controlled droplet application equipment for applications of **Magna**. Nozzles may be angled forward or backward 45° to enhance penetration of the crop and provide better coverage. Ensure that all in-line strainer and nozzle screens in the sprayer are 50-mesh or coarser.

Make application of **Magna** in a spray volume of 10 - 30 gals. per acre. Use a pump that can maintain a pressure of at least 35 - 40 PSI at the nozzles (check nozzle manufacturer's instructions) and provide proper agitation within the tank to keep the product dispersed. Lower pressures may be used with extended range or drift reduction nozzles. When weed foliage is dense, use a minimum of 15 gals. per acre.

Always ensure that agitation is maintained until spraying is completed, even if spraying is stopped for brief periods. If the agitation is stopped for more than 5 minutes, resuspend the spray solution by running on full agitation before spraying.

#### Spray Drift

The interaction of equipment and weather related factors determine the potential for spray drift. The applicator is responsible for considering all these factors when making a decision.

Apply the pesticide only when the potential for drift to adjacent sensitive areas (e.g., residential areas, bodies of water, known habitat for threatened or endangered species, non-target crops) is minimal (e.g., when wind is blowing away from the sensitive areas). Do not apply when weather conditions may cause drift to non-target areas.

The most effective way to reduce spray drift potential is to apply large 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.



### **Aerial Applications**

**Restriction:** For aerial application, use only nozzles producing coarse-ultra coarse droplets. Do not use nozzles producing fine-medium size droplets.

**Magna** may be applied aerially for post-emergence weed control in Glyphosate-resistant corn and pre-plant or pre-emergence weed control in grain sorghum only in the following states: Alabama, Arizona, Arkansas, California, Colorado, Connecticut, Delaware, Florida, Georgia, Idaho, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maine, Maryland, Massachusetts, Michigan, Minnesota, Mississippi, Missouri, Montana, Nevada, New Hampshire, New Jersey, New Mexico, New York, North Carolina, North Dakota, Nebraska, Ohio, Oklahoma, Oregon, Pennsylvania, Rhode Island, South Carolina, South Dakota, Tennessee, Texas, Utah, Vermont, Virginia, Washington, West Virginia, Wisconsin, and Wyoming.

Applications must be made in a minimum of 2 gallons of water per acre.

### **Additional Spray Drift Precautions For Aerial Application**

The distance of the outer-most nozzles on the boom must not exceed  $\frac{3}{4}$  the length of the wingspan or rotor.

Nozzles must always point backward parallel with the air stream and never be pointed downwards more than 45 degrees. Where states have more stringent regulations, they must be observed.

Spray must be released at the lowest height consistent with effective weed control and flight safety.

For best results, quantifiably pattern test each specific aerial application vehicle used for aerial application of **Magna** initially and every year thereafter.

For some use patterns, reducing the effective boom length to less than  $\frac{3}{4}$  of the wingspan or rotor length may further reduce drift without reducing swath width.

Do not make applications at a height greater than 10 feet above the top of the largest plants unless a greater height is required for aircraft safety. Making applications at the lowest height that is safe reduces exposure of droplets to evaporation and wind.

When applications are made with a crosswind, the swath will be displaced downwind. Therefore, on the up and downwind edges of the field the applicator must compensate for this displacement by adjusting the path of the aircraft upwind. Increase swath adjustment distance with increasing drift potential (higher wind, smaller drops, etc.).

Drift potential is lowest between wind speeds of 2 - 10 mph. However, many factors, including droplet size and equipment type determine drift potential at any given speed. Avoid application below 2 mph due to variable wind direction and high inversion potential. **Note:** Local terrain can influence wind patterns. Ensure that every applicator is familiar with local wind patterns and how they affect drift.

When making applications in low relative humidity, set up equipment to produce larger droplets to compensate for evaporation. Droplet evaporation is most severe when conditions are both hot and dry.

Avoid applying during a temperature inversion, because drift potential is high. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions due to the light variable winds common during inversions. Temperature inversions are characterized by increasing temperatures 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 connected cloud (under low wind conditions) indicates an inversion, while smoke that moves upwards and rapidly dissipates indicates good vertical air mixing.

The pesticide may only be applied when the potential for drift to adjacent sensitive areas (e.g., residential areas, bodies of water, known habitat for threatened or endangered species, non-target crops) is minimal (e.g., when wind is blowing away from the sensitive areas).

### **Cleaning Equipment After Application**

Special attention must be given to cleaning equipment before spraying a crop other than glyphosate-resistant corn or grain sorghum. Mix only as much spray solution as needed. Flush tank, hoses, boom, and nozzles with clean water.

1. Prepare a cleaning solution of 1 gallon of household ammonia per 25 gals. of water. Many commercial spray tank cleaners may be used.
2. Use a pressure washer to clean the inside of the spray tank with this solution. Take care to wash all parts of the tank, including the inside top surface. If a pressure washer is not available, completely fill the sprayer with the cleaning solution to ensure contact of the cleaning solution with all internal surfaces of the tank and plumbing. Start agitation in the sprayer and thoroughly re-circulate the cleaning solution for at least 15 minutes. Remove all visible deposits from the spraying system.
3. Flush hoses, spray lines, and nozzles for at least 1 minute with the cleaning solution.
4. Dispose of rinsate from steps 1 - 3 in an appropriate manner.
5. Repeat steps 2 - 5.
6. Remove nozzles, screens, and strainers and clean separately in the ammonia solution after completing the above procedures.
7. Rinse the complete spraying system with clean water.

## MIXING PROCEDURES

Refer to the **CROP USE DIRECTIONS** section of this label for listed tank mixes.

Always refer to the labels of other pesticide products for mixing directions and precautions which may differ from those outlined here. Use in accordance with the most restrictive of label limitations and precautions. Do not exceed any label dosage rates. This product cannot be mixed with any product containing a label prohibition against such mixing. Do not tank mix **Magna** with any other insecticide, fungicide, fertilizer solution, or adjuvant not listed on the label without testing compatibility, as poor mixing may result. Test the compatibility of any tank-mix combination on a small scale such as a jar test before actual tank mixing.

It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

Follow the mixing instructions for adding **Magna** to the spray tank: Only use sprayers in good running condition with good agitation. Ensure the sprayer is cleaned according to instructions on label of the product used prior to **Magna**. Use only clean water for the spray solution. Ensure that all in-line strainer and nozzle screens in the sprayer are 50-mesh or coarser. Avoid using screens finer than 50-mesh.

When adding products to the spray tank, make sure each product is added separately and thoroughly agitated before adding the next product. If using an induction tank, add only one product at a time. For example, add water, then add atrazine to the induction tank and transfer to spray tank, rinse induction tank with water, then add **Magna**.

1. Fill tank ½ full of clean water and start agitation.
2. Add ammonium sulfate (AMS).
3. Add nonionic surfactant (NIS).
4. Add atrazine – make sure atrazine is fully dispersed before other products are added to the mix.
5. Add fungicide (if applicable).
6. Add **Magna**.
7. Add EC products (e.g., insecticides) last. Be aware that adding any EC type product will increase the risk for crop injury.
8. Fill tank with water to the desired level.

## CROP USE DIRECTIONS

### GLYPHOSATE-RESISTANT FIELD CORN

**Magna** may be applied post-emergence only in glyphosate-resistant (e.g., Roundup Ready, Agrisure GT) corn for control of the weeds listed in **WEEDS CONTROLLED** table.

When glyphosate-resistant corn is grown under no-till conditions, control all emerged weeds at the time of corn planting with a glyphosate or paraquat based herbicide program. Following a burndown weed control application and after glyphosate-resistant corn emergence, application of **Magna** can be made post-emergence to control the weeds listed in **WEEDS CONTROLLED** table.

#### Pre-Emergence

**Magna** is specifically formulated for post-emergence in crop use and does not contain a corn safener. Therefore, **Magna** is not labeled for early pre-plant or pre-emergence applications.

#### Post-Emergence – Magna Alone

Application of **Magna** may be made at a rate of 3.6 - 4.0 pts. per acre from corn emergence up to 30" in height or the 8-leaf stage of corn growth. Make application of **Magna** to actively growing weeds listed in **WEEDS CONTROLLED** table. For the best protection of the corn crops yield potential, make application **Magna** prior to weeds reaching 4" in height, length or diameter. Use the higher end of the listed **Magna** use rate range (4.0 pts. per acre) when weeds are stressed or weed populations are dense.

Make application of **Magna** with a non-ionic surfactant (NIS) and ammonium sulfate (AMS). See the **Adjuvants** section for specific adjuvant instructions.

Visible effects on annual weeds occur within 2 - 4 days after application; effects on perennial weeds may take 7 days or longer. Extremely cool or cloudy weather following treatment may slow activity.

Weeds susceptible to metolachlor or mesotrione that emerge soon after application of **Magna** will be controlled after they absorb the herbicides from the soil. The active ingredients in **Magna** are in adequate amounts to provide 3 - 4 weeks of residual weed control extending through crop canopy. If an activating rain (0.25") is not received within 7 - 10 days after the post-emergence application, residual weed control will be reduced.

Making applications of **Magna** at rates less than 3.6 pts. per acre may result in incomplete weed control, as well as less residual weed control. Using reduced rates of **Magna** also increases the risk for the development of weed resist biotypes. See the **WEED RESISTANCE MANAGEMENT** section of this label for specific instructions.

#### Magna – Sequential Weed Control

Application of **Magna** may be made as the post-emergence component of a two-pass weed control program. Apply s-metolachlor/metolachlor, mesotrione, or atrazine, pre-emergence and follow with a post-emergence application of **Magna** at 3.6 - 4.0 pts. per acre. Do not reduce the rate of **Magna** when product is applied in a sequential program with these mesotrione containing products.

It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank-mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank-mixture.

**Magna** can also be applied at a rate of 3.6 - 4.0 pts. per acre post-emergence following a pre-emergence application of atrazine, glyphosate, and s-metolachlor/metolachlor.

Make application of **Magna** with a non-ionic surfactant (NIS) and ammonium sulfate (AMS). Refer to the **Adjuvants** section for specific adjuvant instructions.

#### **Magna – Tank Mix with Atrazine**

In tank mix with atrazine, apply **Magna** at 3.6 - 4.0 pts. per acre. If weeds are more than 4" tall, or for improved broadleaf weed control add atrazine. Atrazine rates above 0.5 lb. a.i. per acre may result in glyphosate antagonism and reduced grass control.

Apply the tank mix of **Magna** plus atrazine with a non-ionic surfactant (NIS) and ammonium sulfate (AMS). Refer to the **Adjuvants** section of this label for specific instructions.

When tank mixing or sequentially applying atrazine or products containing atrazine with **Magna** to glyphosate-resistant corn, do not exceed an application rate of 2.0 lbs. a.i. of atrazine per acre for any single application and the total pounds of atrazine applied (lb. a.i. per acre) must not exceed 2.5 lbs. a.i. per acre per year.

If no atrazine was applied prior to corn emergence, apply a maximum of 2.0 lbs. a.i. per acre broadcast. If a post-emergence treatment is required following an earlier herbicide application, the total atrazine applied may not exceed 2.5 lbs. a.i. per acre per calendar year.

#### **Restriction:**

**Do not apply any atrazine formulation if the corn is greater than 12" tall.**

#### **Magna – Tank Mix With Dicamba, Dicamba + Diflufenzopyr-sodium, Dicamba + Primisulfuron-methyl**

Tank mix **Magna** at 3.6 - 4 pts. per acre dicamba, dicamba + diflufenzopyr-sodium, dicamba + primisulfuron-methyl + nonionic surfactant (NIS) at 1 qt. per 100 gals. + spray grade ammonium sulfate (AMS) for improved control of difficult broadleaf weeds as a post-emergence application in glyphosate-resistant corn. Refer to the applicable tank mixture product label for specific application rates, precautions and restrictions.

#### **Precautions - Corn:**

- Temporary crop response (transient bleaching) from post-emergence applications to glyphosate-resistant corn may occur under extreme weather conditions or when the crop is suffering from stress. Corn quickly outgrows these effects and develops normally.
- If additional glyphosate is tank mixed or applied sequentially with **Magna** as a post-emergence treatment in glyphosate-resistant corn, refer to the specific glyphosate label for in crop rate restrictions.

#### **Restrictions - Corn:**

- Pre-Grazing Interval (PGI): Do not graze or feed forage from treated areas for 45 days following application.
- Pre-Harvest Interval (PHI): Do not harvest forage, grain, or stover within 45 days after application.
- Do not apply more than 4 pts. (0.105 lb. mesotrione, 1.05 lbs. metolachlor, and 1.05 lbs. glyphosate) per acre per year.
- Do not make more than 1 application per year.
- Do not make applications of **Magna** past the 8-leaf stage of growth (or >30" tall) in glyphosate-resistant corn.
- It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

### **GRAIN SORGHUM**

Application of **Magna** can be made pre-plant non-incorporated (up to 21 days before planting) up through pre-emergence for weed control in sorghum. **Magna** will control the emerged weeds listed in the **WEEDS CONTROLLED** table and will provide residual control of the weeds listed in the below **WEEDS CONTROLLED IN GRAIN SORGHUM** table.

The sorghum seed must be treated with a protectant that is effective for safening metolachlor to sorghum. Making application of **Magna** pre-plant or pre-emergence to sorghum that is not seed protected for applications to metolachlor will result in crop death. Making application of **Magna** post-emergence to sorghum will result in crop death.

Apply **Magna** as a broadcast non-incorporated spray at a rate of 4 - 6 pts. per acre beginning at 21 days before planting and up through planting but prior to sorghum emergence. Making application of **Magna** less than 7 days before sorghum planting will increase the risk of crop injury, especially if irrigation or rainfall is received following the application. Injury symptoms include temporary bleaching of newly emerging sorghum leaves or in extreme conditions, stunting or partial stand loss. Making application of **Magna** more than 7 days (but not more than 21) before sorghum planting will reduce the risk of crop injury.

If **Magna** is applied before planting, minimize disturbance of the herbicide treated soil barrier during the planting process to lessen the potential for poor weed control in the disturbed soil zone.

**Magna Sorghum Split Application:** Application of **Magna** may also be made as a split treatment to grain sorghum. For a split treatment program, make the first application as a non-incorporated early pre-plant (7 - 21 days before planting) treatment followed by a second **Magna** application as a pre-emergence application before sorghum emerges. The total amount of **Magna** applied in the split treatment program cannot exceed 6 pts. per acre per season.

For control of emerged weeds listed in **WEEDS CONTROLLED** table, add a nonionic surfactant (NIS) type adjuvant at a rate of 0.25 - 0.5% v/v (1 - 2 qts. per 100 gals.) to the spray solution. Use the higher NIS rate of 0.5% v/v under adverse environmental conditions (high temperatures and/or low humidity). In addition to NIS, a spray grade AMS at a rate of 8.5 - 17 lbs. per 100 gals. of spray may be added to the solution for improved control of emerged weeds.

Application of **Magna** can be made sequentially or in tank mixture with other herbicides registered for use in grain sorghum. It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank-mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank-mixture.

**Restrictions - Grain Sorghum:**

- Do not make application of more than 6 pts. per acre of **Magna** per growing season.
- Do not make application of **Magna** to sorghum grown on sandy soils (sand, sandy loam or loamy sand).
- Do not make application of **Magna** to emerged grain sorghum or plant death will occur.
- Do not use **Magna** in the production of forage sorghum, sweet sorghum (sorgo), sudangrass, sorghum-sudangrass hybrids, or dual purpose sorghum.
- Sorghum seed must be treated with Concep® III herbicide safener before planting, or severe crop injury may occur.
- In the state of Texas, do not apply **Magna** to sorghum grown South of Interstate 20 (I-20) or East of Highway 277.

**WEEDS CONTROLLED IN GRAIN SORGHUM**

When applied as directed in this label at 6 pts. per acre, **Magna** will provide pre-emergence control or partial control of the weeds listed in the below table. Optimum weed control will be obtained if **Magna** is applied according to all label directions.

If a significant rainfall does not occur within 7 days after application, weed control may be decreased. If irrigation is available, apply ½ - 1" of water. If irrigation is not available, a uniform shallow cultivation as soon as weeds emerge will provide improved control.

**C** = Control

**PC** = Partial Control

**Weeds Controlled or Partially Controlled by Pre-Emergence Applications of Magna**

Common Name	Scientific Name	Control or Partial Control
<b>BROADLEAVES</b>		
Amaranth, Palmer	<i>Amaranthus palmeri</i>	C
Amaranth, Powell	<i>Amaranthus powellii</i>	C
Buffalobur	<i>Solanum rostratum</i>	C
Carpetweed	<i>Mollugo verticillata</i>	C
Cocklebur, Common	<i>Xanthium strumarium</i>	PC
Galinsoga	<i>Galinsoga parviflora</i>	C
Horseweed (Marestail)	<i>Coryza canadensis</i>	PC
Jimsonweed	<i>Datura stramonium</i>	C
Kochia	<i>Kochia scoparia</i>	PC
Lambsquarters, Common	<i>Chenopodium album</i>	C
Morningglory, Ivyleaf	<i>Ipomoea hederacea</i>	PC
Morningglory, Entireleaf	<i>Ipomoea hederacea</i>	PC
Nightshade, Black	<i>Solanum nigrum</i>	C
Nightshade, Eastern Black	<i>Solanum ptycanthum</i>	C
Nightshade, Hairy	<i>Solanum sarrachoides</i>	C
Morningglory, Ivyleaf	<i>Ipomoea hederacea</i>	PC
Pigweed, Redroot	<i>Amaranthus retroflexus</i>	C
Pigweed, Smooth	<i>Amaranthus hybridus</i>	C
Purslane, Common	<i>Portulaca oleracea</i>	C
Pusley, Florida	<i>Richardia scabra</i>	C
Ragweed, Common	<i>Ambrosia artemisiifolia</i>	PC
Ragweed, Giant	<i>Ambrosia trifida</i>	PC
Sida, Prickly	<i>Sida spinosa</i>	PC
Smartweed, Ladysthumb	<i>Polygonum persicaria</i>	C
Smartweed, Pennsylvania	<i>Polygonum pensylvanicum</i>	C
Velvetleaf	<i>Abutilon theophrasti</i>	C
Waterhemp, Common	<i>Amaranthus rudis</i>	C
Waterhemp, Tall	<i>Amaranthus tuberculatus</i>	C
<b>GRASSES</b>		
Barnyardgrass	<i>Echinochloa crus-galli</i>	C
Crabgrass, Large	<i>Digitaria sanguinalis</i>	C
Crowfootgrass	<i>Dactyloctenium aegyptium</i>	C

Weeds Controlled or Partially Controlled by Pre-Emergence Applications of Magna		
Common Name	Scientific Name	Control or Partial Control
<b>GRASSES (cont.)</b>		
Cupgrass, Prairie	<i>Eriochloa contracta</i>	C
Cupgrass, Southwestern	<i>Eriochloa acuminata</i>	C
Cupgrass, Woolly	<i>Eriochloa villosa</i>	PC
Foxtail, Giant	<i>Setaria faberi</i>	C
Foxtail, Green	<i>Setaria viridis</i>	C
Foxtail, Robust (Purple, White)	<i>Setaria viridis</i>	C
Foxtail, Yellow	<i>Setaria pumila</i>	C
Goosegrass	<i>Eleusine indica</i>	C
Johnsongrass, Seedling	<i>Sorghum halepense</i>	PC
Millet, Foxtail	<i>Setaria italica</i>	C
Millet, Wild Proso	<i>Panicum miliaceum</i>	PC
Panicum, Browntop	<i>Panicum fasciculatum</i>	C
Panicum, Fall	<i>Panicum dichotomiflorum</i>	C
Panicum, Texas	<i>Panicum texanum</i>	PC
Rice, Red	<i>Oryza sativa</i>	C
Sandbur, Field	<i>Cenchrus incertus</i>	PC
Shattercane	<i>Sorghum bicolor</i>	PC
Signalgrass, Broadleaf	<i>Brachiaria platyphylla</i>	PC
Sprangletop, Red	<i>Leptochloa filiformis</i>	C
Witchgrass	<i>Panicum capillare</i>	C
<b>SEDGES</b>		
Nutsedge, yellow	<i>Cyperus esculentus</i>	C

## STORAGE AND DISPOSAL

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

**PESTICIDE STORAGE:** Keep container tightly closed when not in use. Product can be stored at temperatures as low as -10°F. Do not store near seeds, fertilizers, or food stuffs. Keep away from heat and flame.

**PESTICIDE DISPOSAL:** Open dumping is prohibited. Waste resulting from the use of this product must be disposed of on site or at an approved waste disposal facility. Thoroughly rinse the spray equipment after use. Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal law. If these wastes cannot be disposed of as described above, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste Representative at the nearest EPA Regional Office for guidance.

**CONTAINER HANDLING [Less Than 5 Gallons]:** Non-refillable container. Do not reuse or refill this container. Offer for recycling if available. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or mix tank. Drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or mix tank or store rinsate for later use and disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

**CONTAINER HANDLING [Greater Than 5 Gallons]:** Non-refillable container. Do not reuse or refill this container. Offer for recycling, if available. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ 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 rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Then offer for recycling if available or reconditioning if appropriate or puncture and dispose of in a sanitary landfill or by incineration.

**CONTAINER HANDLING [For Bulk and Mini-Bulk Containers]:** Refillable container. Refill this container with pesticide only. Do not use 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 person refilling. To clean 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 rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures allowed by State and local authorities.

**CONTAINER IS NOT SAFE FOR FOOD, FEED, OR DRINKING WATER!**

#### 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.

The Directions for Use of this product must be followed carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Ineffectiveness or other unintended consequences may result because of such factors as manner of use or application, weather, presence of other materials or other influencing factors in the use of the product, which are beyond the control of Sharda USA LLC or Seller. To the extent consistent with applicable law, all such risks shall be assumed by Buyer and User, and Buyer and User agree to hold Sharda USA LLC and Seller harmless for any claims relating to such factors.

Sharda USA LLC 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. To the extent consistent with applicable law, this warranty does not extend to the use of this product contrary to label instructions, or under conditions not reasonably foreseeable to or beyond the control of Seller or Sharda USA LLC and Buyer and User assume the risk of any such use. To the extent consistent with applicable law, SHARDA USA LLC MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS STATED ABOVE.

To the extent consistent with applicable law, neither Sharda USA LLC nor Seller shall be liable for any incidental, consequential or special damages resulting from the use or handling of this product. **TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF SHARDA USA LLC AND SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT OR, AT THE ELECTION OF SHARDA USA LLC OR SELLER, THE REPLACEMENT OF THE PRODUCT.**

Sharda USA LLC and Seller offer this product, and Buyer and User accept it, subject to the foregoing Conditions of Sale and Limitation of Warranty and Liability, which may not be modified except by written agreement signed by a duly authorized representative of Sharda USA LLC.

All trademarks are the property of their respective owners.

# Magna

A Post-Emergence Herbicide For Weed Control in Glyphosate-Resistant Field Corn  
and Pre-Emergence Weed Control in Grain Sorghum

ACTIVE INGREDIENTS:	WT. BY %
Glyphosate, potassium salt*	20.50%
Metolachlor**	20.50%
Mesotrione***	2.05%
<b>OTHER INGREDIENTS:</b>	<b>56.95%</b>
<b>TOTAL:</b>	<b>100.00%</b>

Active ingredients per U.S. gallon: glyphosate acid 2.09 lbs.,  
metolachlor 2.09 lbs., and mesotrione 0.209 lb.  
\*CAS No. 70901-12-1 \*\*CAS No. 51218-45-2 \*\*\*CAS No. 104206-82-8

## KEEP OUT OF REACH OF CHILDREN CAUTION

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle.  
(If you do not understand this label, find someone to explain it to you in detail.)

FIRST AID	
<b>IF SWALLOWED:</b>	<ul style="list-style-type: none"><li>• Call a poison control center or doctor immediately for treatment advice.</li><li>• Have person sip a glass of water if able to swallow.</li><li>• Do not induce vomiting unless told to do so by a poison control center or doctor.</li><li>• Do not give anything by mouth to an unconscious person.</li></ul>
<b>IF ON SKIN OR CLOTHING:</b>	<ul style="list-style-type: none"><li>• Take off contaminated clothing.</li><li>• Rinse skin immediately with plenty of water for 15-20 minutes.</li><li>• Call a poison control center or doctor for treatment advice.</li></ul>
<b>IF IN EYES:</b>	<ul style="list-style-type: none"><li>• Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li><li>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eyes.</li><li>• Call a poison control center or doctor for treatment advice.</li></ul>
HOTLINE NUMBER	
Have the product container or label with you when calling a poison control center or doctor or going for treatment. For emergency information concerning this product, call your poison control center at <b>1-800-222-1222</b> .	

See label booklet for complete Precautionary Statements and Directions For Use.

**Sale, use, and distribution of this product in Nassau and Suffolk Counties in the State of New York is prohibited.**

## PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS  
CAUTION

Harmful if swallowed. Harmful if absorbed through skin. Causes moderate eye irritation. Avoid contact with skin, eyes, or clothing. This product may cause skin sensitization reactions in some people. Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove and wash contaminated clothing before reuse.

**Manufactured For:** Sharda USA LLC, 7217 Lancaster Pike, Suite A, Hockessin, Delaware 19707  
**EPA Reg. No. 83529-111**  **EPA Est. No. 11773-IA-001**  **EPA Est. No. 39578-TX-001**  
**Net Contents:**  2.5 Gallons  265 Gallons

GLYPHOSATE	GROUP	9	HERBICIDES
METOLACHLOR	GROUP	15	HERBICIDES
MESOTRIONE	GROUP	27	HERBICIDES

## STORAGE AND DISPOSAL

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

**PESTICIDE STORAGE:** Keep container tightly closed when not in use. Product can be stored at temperatures as low as -10°F. Do not store near seeds, fertilizers, or food stuffs. Keep away from heat and flame.

**PESTICIDE DISPOSAL:** Open dumping is prohibited. Waste resulting from the use of this product must be disposed of on site or at an approved waste disposal facility. Thoroughly rinse the spray equipment after use. Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal law. If these wastes cannot be disposed of as described above, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste Representative at the nearest EPA Regional Office for guidance.

**CONTAINER HANDLING [Less Than 5 Gallons]:** Non-refillable container. Do not reuse or refill this container. Offer for recycling if available. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or mix tank. Drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or mix tank or store rinsate for later use and disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

**CONTAINER HANDLING [Greater Than 5 Gallons]:** Non-refillable container. Do not reuse or refill this container. Offer for recycling, if available. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ 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 rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Then offer for recycling if available or reconditioning if appropriate or puncture and dispose of in a sanitary landfill or by incineration.

**CONTAINER HANDLING [For Bulk and Mini-Bulk Containers]:** Refillable container. Refill this container with pesticide only. Do not use 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 person refilling. To clean 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 rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures allowed by State and local authorities.

**CONTAINER IS NOT SAFE FOR FOOD, FEED, OR DRINKING WATER!**

OPEN HERE 