CONTAINS SAFENER FOR CORN

METOLACHLOR	GROUP	15	HERBICIDE
MESOTRIONE	GROUP	27	HERBICIDE

A PREEMERGENCE AND POSTEMERGENCE HERBICIDE FOR CONTROL OF ANNUAL GRASSES AND BROADLEAF WEEDS IN FIELD CORN, SEED CORN, SWEET CORN, YELLOW POPCORN AND GRAIN SORGHUM

ACTIVE INGREDIENTS*:	**BY WT.**
Metolachlor	36.80%
Mesotrione	3.68%
OTHER INGREDIENTS:	59.52%
TOTAL:	100.00%

*Equivalent to 3.26 pounds of Metolachlor and 0.33 pounds mesotrione active ingredients per gallon.

KEEP OUT OF REACH OF CHILDREN

CAUTION / PRECAUCIÓN

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

For Chemical Spill, Leak, Fire, or Exposure, Call CHEMTREC (800) 424-9300.
SEE INSIDE BOOKLET FOR FIRST AID AND ADDITIONAL PRECAUTIONARY STATEMENTS.
Not for Sale, Sale into, Distribution and/or Use in Nassau and Suffolk Counties of New York State.

EPA Reg. No.: 89168-93-89391

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INNVICTIS

Distributed By:
INNVICTIS® CROP CARE, LLC
1880 Fall River Drive, Suite 100
Loveland, CO 80538

FIRST AID	
IF IN EYES:	• Hold eye open and rinse slowly and gently with water for 15-20 minutes. • Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. • Call a poison control center or doctor for treatment advice.
IF SWALLOWED:	• Call a poison control center or doctor immediately for treatment advice. • Have person sip a glass of water if able to swallow. • **DO NOT** induce vomiting unless told to by the poison control center or doctor. • **DO NOT** give anything by mouth to an unconscious person.
IF ON SKIN OR CLOTHING:	• Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15-20 minutes. • Call a poison control center or doctor for treatment advice.
IF INHALED:	• Move person to fresh air. • If person is not breathing, call 911 or an ambulance, and then give artificial respiration, preferably mouth-to mouth, if possible. • Call a poison control center or doctor for further treatment advice.
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 the National Pesticides Information Center (NPIC) at **1-800-858-7378** or your poison control center at **1-800-222-1222**. For Chemical Spill, Leak, Fire or Exposure, call CHEMTREC **800-424-9300.**	

PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS
CAUTION

Harmful is swallowed or absorbed through skin. Causes moderate eye irritation. Avoid contact with skin, eyes or clothing. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Wash 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)

All Mixers, Loaders, Applicators, and other handlers must wear:

- Protective eyewear
- 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
- Chemical-resistant apron when cleaning equipment, mixing, or loading

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

Engineering Control Statements

When handlers use closed systems, enclosed cabs or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 40 CFR 170.607(d-e)], 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/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

DO NOT apply directly to water, 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 ground water under certain conditions as a result of agricultural use. Use of this product in areas where soils are permeable, particularly where the water table is shallow, may result in ground water contamination.

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 high 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, 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/LOADING INSTRUCTIONS

Care must be taken when using this product to prevent back-siphoning into wells, spills, or improper disposal of excess pesticide, spray mixtures, or rinsates. Check-valves or antisiphoning devices must be used on all mixing equipment.

This product may not be mixed or loaded within 50 feet of perennial or intermittent streams and rivers, natural or impounded lakes and reservoirs. This product may not be mixed/loaded or used within 50 feet of all 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** mix or allow coming in contact with any oxidizing agent. Hazardous chemical reaction may occur.

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.

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.
The following PPE is required for early entry into 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:

- Protective eyewear
- 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

FAILURE TO FOLLOW THE DIRECTIONS FOR USE, RESTRICTIONS AND PRECAUTIONS ON THIS LABEL MAY RESULT IN REDUCED WEED CONTROL, ADVERSE CROP RESPONSE, OR ILLEGAL CROP RESIDUES.

Not for Sale, Sale into, Distribution and/or Use in Nassau and Suffolk Counties of New York State.

RESISTANCE MANAGEMENT

For resistance management, this product contains both a Group 15 (Metolachlor) and Group 27 (mesotrione) herbicide. Any weed population may contain plants naturally resistant to Group 15 and/or Group 27 herbicides. The resistant individual may dominate the weed population if these herbicides are used repeatedly in the same fields. Appropriate resistance-management strategies should be followed.

Weed Management

To delay herbicide resistance, take one or more of the following steps:

- Rotate the use of this product or other Group 15 and Group 27 herbicides within a growing season sequence or among growing seasons with different herbicide groups that control the same weeds in the field.
- Use tank mixtures with herbicides from a different group if such use is permitted; where information on resistance in target weed species is available, use the less resistance-prone partner at a rate that will control the target weed(s) equally as well as the more resistance-prone partner. Consult your local extension service or certified crop advisor if you are unsure as to which active ingredient is currently less prone to resistance.
- Adopt an integrated weed-management program for herbicide use that includes scouting and uses historical information related to herbicide use and crop rotation, and that considers tillage (or other mechanical control methods), cultural (e.g., higher crop seeding rates; precision fertilizer application method and timing to favor the crop and not the weeds), biological (weed-competitive crops or varieties) and other management practices.
- Scout before and after herbicide application to monitor weed populations for early signs of resistance development. 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. If resistance is suspected, prevent weed seed production in the affected area by an alternative herbicide from a different group or by a mechanical method such as hoeing or tillage. Prevent movement of resistant weed seeds to other fields by cleaning harvesting and tillage equipment when moving between fields, and planting clean seed.
- If a weed pest population continues to progress after treatment with this product, discontinue use of this product, and switch to another management strategy or herbicide with a different mode of action, if available.
- Contact your local extension specialist or certified crop advisors for additional pesticide resistance-management and/or integrated weed-management recommendations for specific crops and weed biotypes.
- For further information or to report suspected resistance, contact Innvictis Crop Care, LLC at 855-466-8428.

Management of Resistant Biotypes

Since the occurrence of resistant weeds cannot be determined until after product use and scientific confirmation, manufacturer is not responsible for any losses that may result from the failure of this product to control resistant weed biotypes.

The following good agronomic practices are recommended to reduce the spread of resistant biotypes:

- If a naturally occurring resistant biotype is present in your application site, this product should be tank-mixed or applied sequentially with an appropriately labeled herbicide with a different mode of action to achieve control.
- Cultural and mechanical control practices (e.g. crop rotation or tillage) may also be used as appropriate.
- Scout treated application site after herbicide applications and control escaping weeds including resistant biotypes before they set seed.
- Thoroughly clean equipment before leaving fields known to contain resistant biotypes.
- Contact your local sales representative, crop advisor, or extension agent to find out if suspected resistant weeds to these Mode of Actions have been found in your region. Do not assume that each listed weed is being controlled by multiple mechanisms of action. Co-formulated active ingredients are intended to broaden the spectrum of weeds that are controlled. Some weeds may be controlled by only one of the active ingredients in this product.

Integrated Pest (Weed) Management

This product may be integrated into an overall weed pest management strategy whenever the use of an herbicide is required. Practices known to reduce weed development (tillage, crop competition) and herbicide use (weed scouting, proper application timing, banding) should be followed wherever possible. Consult local agricultural and weed authorities for additional IPM strategies established for your area.

PRODUCT INFORMATION

This product is for use in field corn and seed corn for preemergence and early postemergence control of many annual grass and broadleaf weeds. This product may also be applied to sweet corn, yellow popcorn and grain sorghum as preemergence control of many annual grass and broadleaf weeds

Refer to the **Tables 1** and **2** for lists of weeds controlled. This product must be used before weeds emerge to effectively control most grass weeds.

If applications are made according to labeled directions for use and under normal growing conditions, this product will not cause crop injury to the treated crop. During germination and early stages of growth, environmental conditions or other factors that contribute to stress of the crop may cause poor or slow growth and may weaken crop seedlings. Using this product under these conditions can result in crop injury.

Restrictions

- **DO NOT** apply this product through any type of irrigation system.
- **DO NOT** use flood irrigation to apply or incorporate this product.
- **DO NOT** apply this product by air.
- **DO NOT** contaminate water used for domestic purposes or for irrigation to non-labeled crops.
- **DO NOT** apply under conditions which favor runoff or wind erosion of soil containing this product to non-target areas.

To prevent movement to off-site areas due to runoff or wind erosion:

- Avoid treating powdery dry or light sand soils when conditions are favorable for wind erosion. Under these conditions, the soil surface should first be settled by rainfall or irrigation.
- **DO NOT** apply to impervious substrates such as paved or highly compacted surfaces or snow covered or frozen soils.

APPLICATION INFORMATION

Ground Application

Space spray nozzles uniformly using the same size and type nozzle to provide accurate and uniform application. To avoid drift and produce good coverage, use nozzles that will produce medium to coarse size droplets. Only use 50-mesh or coarser screens in all inline strainer and nozzle screens. Using agitation, maintain proper product dispersion in the tank, and use a pump that can maintain pressure of at least 35 to 40 PSI at the nozzles. If using extended range or drift reduction nozzles, reduced pressure may be used provided that adequate coverage is maintained. Ensure proper and consistent agitation during spraying through duration until spraying is complete – even when there are brief periods of time where spraying has stopped. Stop and run a full agitation before resuming spray if the spray tank is allowed to sit for more than 5 minutes to re-suspend the solution.

Preemergence Applications

Apply this product in a spray volume of 10 to 80 gallons per acre.

Postemergence Applications

For optimum weed control, good weed coverage is essential. Make applications in a spray volume of 10 to 30 gallons per acre. If weed pressure is high and foliage is dense, use a minimum spray volume of 20 gallons per acre. For postemergence applications, use flat fan nozzles for best coverage. **DO NOT** use flood jet or venture type nozzles or controlled droplet application. Use only clean water as a carrier.

Aerial Application Restriction

- **DO NOT** apply this product by air.

SPRAY DRIFT

Avoiding spray drift at the application site is the responsibility of the applicator. The interaction of equipment and weather related factors determine the potential for drift. The applicator is responsible for considering these factors when making an application decision.

DO NOT apply when weather conditions may cause drift to non-target areas. Drift may result in injury to adjacent crops and vegetation. To avoid spray drift, **DO NOT** apply when the wind speed is greater than 10 mph or during periods of temperature inversions.

Leave a sufficient buffer to avoid drift to sensitive crops. This buffer may be untreated corn rows or field border species maintained for this purpose. The width of the buffer needed for a specific application will depend on the wind speed, distance to sensitive crops, and application equipment parameters.

Information on Droplet Size

The most effective way to reduce spray drift potential is to apply larger droplets. The best drift management strategy is to apply the largest droplets that provide sufficient coverage and control. Applying larger droplets reduces drift potential, but will not prevent drift if applications are made improperly, or under unfavorable environmental conditions.

Controlling Droplet Size

- **Application Volume** - Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets.
- **Pressure** - **DO NOT** exceed the nozzle manufacturer's recommended pressures. For many nozzle types, lower pressure produces larger droplets. When higher flow rates are needed, use higher rate nozzles instead of increasing pressure.
- **Number of Nozzles** - Use the minimum number of nozzles that provide uniform coverage.

Application Height

Applications should be made at the lowest height above the target area that still provides uniform coverage of the target. Making applications at the lowest yet effective height reduces exposure of droplets to wind.

Sensitive Areas

Only apply this product 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).

ADDITIVES

Preemergence Applications
Any of the adjuvants may be used at a preemergence or preplant timing (where the corn crop has not yet emerged) to increase burndown activity on existing weeds.

Postemergence Applications
When applying this product postemergence to corn, add either a non-ionic surfactant (NIS) or crop oil concentrate (COC). When using a NIS, add at a 0.25% v/v (1 quart per 100 gallons). When using a COC, add at a rate of 1% v/v (1 gallon per 100 gallons) or the equivalent of 1 gallon per 100 gallons. The use of COC will provide more consistent weed control than an NIS but may result in temporary crop injury.

In addition to NIS or COC, a nitrogen based adjuvant may also be added to increase consistency of weed control. The use of nitrogen based adjuvants (AMS or UAN) will increase the risk of crop injury and can result in temporary crop injury.

Restriction
- **DO NOT** use methylated seed oil (MSO) with this product when applied alone to emerged field corn, or when applied as a postemergence tank mixture with other products.

MIXING PROCEDURES

Use either clean water or liquid fertilizers (excluding suspension fertilizers) as carriers for preemergence applications. If using fluid fertilizers, a compatibility test must be conducted. See **Compatibility Test** section for additional information. Even if ***VILLAIN*** is determined to be physically compatible with a fluid fertilizer, constant agitation will be necessary to maintain a uniform solution during application. Use only clean water as a carrier for postemergence applications once the crop has emerged.

The spray tank must be thoroughly rinsed, decontaminated and clean before adding either this product alone or with tank mix partners. Use only clean water, if water is used as the carrier.

Refer to specific tank mix sections in this label. Always refer to the tank mix partner label(s) for mixing directions and precautions. **DO NOT** exceed maximum label use rates, or combined total maximum seasonal use rates for mesotrione or Metolachlor. **DO NOT** mix this product with any product bearing a label prohibition against such mixing. If a tank mixture is used, a compatibility test must be conducted. See **Compatibility Test** section below for information on conducting a compatibility test.

Compatibility Test
To ensure compatibility of this product with fertilizer carriers or other pesticides, conduct a compatibility test before tank mixing. The following test assumes a spray volume of 25 gallons per acre. For other spray volumes, make appropriate changes in the ingredients.

Nitrogen solutions or complete liquid fertilizers, excluding suspension fertilizers, may replace all or part of the water in the spray. Because liquid fertilizers vary, even within the same analysis, always check compatibility with pesticide(s) before use. Incompatibility of tank-mixtures is more common with mixtures of fertilizer and pesticides.

Compatibility Test Procedure
1. Add 1.0 pint of water or fertilizer carrier to each of two - 1 quart jars with tight lids. Use the same source of water that will be used for the tank mix and conduct the test at the temperature the tank mix will be applied.
2. To one of the jars, add 1/4 teaspoon or 1.2 mL of a compatibility agent approved for this use (1/4 teaspoon equals 2.0 pints per 100 gallons of spray). Shake or stir gently to mix.
3. To both jars, add the appropriate amount of pesticide(s) in their relative proportions based on specified label rates. If more than one pesticide product will be used, add them separately as described in the **Tank Mix Instructions** section of this label. After each addition, shake or stir gently to thoroughly mix.
4. After adding all ingredients, put lids on and tighten and invert each jar ten times to mix. Let the mixtures stand 15 to 30 minutes and then look for separation, large flakes, precipitates, gels, heavy oily film on the jar or other signs of incompatibility. Determine if the compatibility agent is needed in the spray mixture by comparing the two jars. If either mixture separates, but can be remixed readily, the mixture can be sprayed as long as good agitation is used. If the mixtures are incompatible, test the following methods of improving compatibility: (a) slurry the dry pesticide(s) in water before addition or (b) add 1/2 the compatibility agent to the fertilizer or water and the other 1/2 to the emulsifiable concentrate or flowable pesticide before addition to the mixture. If incompatibility is still observed, **DO NOT** use the mixture.
5. After compatibility testing is complete, dispose of any pesticide wastes in accordance with the **STORAGE AND DISPOSAL** section in this label.

Tank Mix Instructions
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.

Use sprayers and equipment that are in good, clean condition and maintain adequate agitation. If the tank mix partner is determined to be compatible, fill the tank half full of the carrier. Begin agitation and maintain throughout mixing and application. Make sure all return lines to the spray tank discharge below the liquid level. Prepare the tank mixture components and add to the tank in the following order:
1. If using ammonium sulfate (AMS), add and continue until it is completely dispersed.
2. If using a wettable powder or dry flowable formulation, make a slurry with water first and then add it slowly through the screen into the tank. Maintain agitation during this step.
3. If using a flowable formulation, add slowly through screen into the tank. Diluting the flowable with water before adding to the tank may improve mixing and compatibility with dry flowable formulations.

4. Add this product.
5. Add any other liquid tank mix products, adding emulsifiable concentrates last.
6. If an adjuvant will be used, add as the final step. Maintain agitation.
7. Complete filling the spray tank with the carrier and maintain agitation. Make application as soon as possible after spray mixture is prepared. **DO NOT** leave mixture in spray tank overnight unattended or without agitation.

If this product is added to the spray tank via induction, compatibility of the spray mixture may be compromised. If using an induction tank (or comparable equipment), add each tank mixture product separately and allow each to fully disperse into the spray tank before adding the next product. For optimum compatibility, rinse the induction tank with clean water before adding each component.

DO NOT add this product to the spray tank via in-line injection.

Cleaning Equipment After Application
Special attention must be given to cleaning equipment before spraying crops other than field corn. Mix only as much spray solution as needed.

Equipment Cleaning Procedure
1. Flush tank, hoses, boom and nozzles with clean water.
2. Prepare a cleaning solution of 1 gallon of household ammonia per 25 gallons of water. Many commercial spray tank cleaners may be used.
3. 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 recirculate the cleaning solution for at least 15 minutes. All visible deposits must be removed from the spraying system.
4. Flush hoses, spray lines and nozzles for at least 1 minute with the cleaning solution.
5. Remove boom end caps and flush dead space areas, with water, then replace caps.
6. Dispose of rinsate from steps 1 to 5 in an appropriate manner (observe and follow all State and Federal regulations).
7. Repeat steps 2 to 6.
8. Remove nozzles, screens and strainers and clean separately in the ammonia solution after completing the above procedures.
9. Rinse the complete spraying system with clean water.

WEEDS CONTROLLED

VILLAIN applied as directed in this label will control or partially control the weeds listed in **Tables 1** and **2**. Best weed control will be obtained when if this product is applied according to all label directions. Weed control may be decreased if a significant rainfall event (or irrigation) does not occur within 7 days after a preemergence application.

For best postemergence results, apply ***VILLAIN*** to actively growing weeds. Postemergence control may be reduced or delayed when weeds are not actively growing due to stress caused by drought, heat, lack of fertility, flooding, or prolonged cool temperatures.

Table 1. Weeds Controlled or Partially Controlled by Preemergence Applications of *VILLAIN*

Common Name	Scientific Name	Control (C) Partial Control (PC)
BROADLEAF WEEDS		
Amaranth, Palmer	*Amaranthus palmeri*	C
Amaranth, Powell	*Amaranthus powellii*	C
Buffalobur	*Solanum rostratum*	C
Carpetweed	*Mollugo verticillata*	C
Cocklebur, common	*Xanthium strumarium*	PC
Galinsoga	*Galinsoga parviflora*	C
Jimsonweed	*Datura stramonium*	C
Kochia	*Kochia scoparia*	PC
Lambsquarters, common	*Chenopodium album*	C
Morningglory, entireleaf	*Ipomoea hederacea*	PC
Morningglory, ivyleaf	*Ipomoea hederacea*	PC
Nightshade, black	*Solanum nigrum*	C

Common Name	Scientific Name	Control (C) Partial Control (PC)
Nightshade, Eastern black	*Solanum ptycanthum*	C
Nightshade, hairy	*Solanum sarrachoides*	C
Pigweed, redroot	*Amaranthus retroflexus*	C
Pigweed, smooth	*Amaranthus hybridus*	C
Purslane, common	*Portulaca oleracea*	C
Pusley, Florida	*Richardia scabra*	C
Ragweed, common	*Ambrosia artemisiifolia*	PC
Ragweed, giant	*Ambrosia trifida*	PC
Sida, prickly	*Sida spinosa*	PC
Smartweed, ladysthumb	*Polygonum persicaria*	C
Smartweed, Pennsylvania	*Polygonum pensylvanicum*	C
Velvetleaf	*Abutilon theophrasti*	C
Waterhemp, common	*Amaranthus rudis*	C
Waterhemp, tall	*Amaranthus tuberculatus*	C
GRASSES		
Barnyardgrass	*Echinochloa crus-galli*	C
Crabgrass, large	*Digitaria sanguinalis*	C
Crowfootgrass	*Dactyloctenium aegyptium*	C
Cupgrass, prairie	*Eriochloa contracta*	C
Cupgrass, Southwestern	*Eriochloa gracilis*	C
Cupgrass, woolly	*Eriochloa villosa*	PC
Foxtail, giant	*Setaria faberi*	C
Foxtail, green	*Setaria viridis*	C
Foxtail, robust (purple, white)	*Setaria* spp.	C
Foxtail, yellow	*Setaria pumila*	C
Goosegrass	*Eleusine indica*	C
Johnsongrass, seedling	*Sorghum halepense*	PC
Millet, foxtail	*Setaria italica*	C
Millet, wild proso	*Panicum miliaceum*	PC
Panicum, browntop	*Panicum fasciculatum*	C
Panicum, fall	*Panicum dichotomiflorum*	C
Panicum, Texas	*Panicum texanum*	PC
Rice, red	*Oryza sativa*	C
Sandbur, field	*Cenchrus incertus*	PC
Shattercane	*Sorghum bicolor*	PC
Signalgrass, broadleaf	*Brachiaria platyphylla*	PC
Sprangletop, red	*Leptochloa filiformis*	C
Witchgrass	*Panicum capillare*	C
SEDGES		
Nutsedge, yellow	*Cyperus esculentus*	C

Table 2. Weeds Controlled or Partially Controlled by Early Postemergence Applications of *VILLAIN*

This product applied early postemergence will provide control or partial control of small emerged broadleaf weeds (less than 3 inches) but will not provide consistent or effective control of weeds identified as resistant to postemergence HPPD inhibitors.

Common Name	Scientific Name	Control (C) Partial Control (PC)
BROADLEAF WEEDS		
Amaranth, Palmer	*Amaranthus palmeri*	C
Amaranth, Powell	*Amaranthus powellii*	C
Buffalobur	*Solanum rostratum*	C
Carpetweed	*Mollugo verticillata*	C
Cocklebur, common	*Xanthium strumarium*	C
Dandelion	*Taraxacum officinale Weber*	PC
Galinsoga	*Galinsoga parviflora*	C
Hemp	*Cannabis sativa L.*	C
Horsenettle	*Solanum carolinense*	C
Horseweed (marestail)	*Conyza canadensis*	C
Jimsonweed	*Datura stramonium*	C
Kochia	*Kochia scoparia*	PC
Lambsquarters, common	*Chenopodium album*	C
Morningglory, entireleaf	*Ipomoea hederacea*	PC
Morningglory, ivyleaf	*Ipomoea hederacea*	PC
Mustard, wild	*Brassica kaber*	C
Nightshade, black	*Solanum nigrum*	C
Nightshade, Eastern black	*Solanum ptycanthum*	C
Nightshade, hairy	*Solanum sarrachoides*	C
Pigweed, redroot	*Amaranthus retroflexus*	C
Pigweed, smooth	*Amaranthus hybridus*	C
Pokeweed	*Phytolacca americana*	C
Potatoes, volunteer	*Solanum* spp.	C
Purslane, common	*Portulaca oleracea*	PC
Pusley, Florida	*Richardia scabra*	C
Ragweed, common	*Ambrosia artemisiifolia*	C
Ragweed, giant	*Ambrosia trifida*	C
Sida, prickly	*Sida spinosa*	PC
Smartweed, ladysthumb	*Polygonum persicaria*	C
Smartweed, Pennsylvania	*Polygonum pensylvanicum*	C
Thistle, Canada	*Cirsium arvense*	PC
Velvetleaf	*Abutilon theophrasti*	C
Waterhemp, common	*Amaranthus rudis*	C
Waterhemp, tall	*Amaranthus tuberculatus*	C
SEDGES		
Nutsedge, yellow	*Cyperus esculentus*	PC

ROTATIONAL CROPS

When *VILLAIN* is applied as directed on this label, follow the crop rotation intervals in **Table 3**. If this product is tank mixed with other products, follow the most restrictive product's crop rotation interval.

Table 3. Crop Rotational Intervals

Crop	Crop Rotational Interval [1]
Corn (all types) and grain sorghum [2]	Anytime
Barley, oats, rye and wheat	4.5 Months
Cotton, peanuts, potatoes, and soybeans	Spring following the application
Beans (dry and snap), cucurbits, peas, red clover, sugar beets, tomatoes, and all other rotational crops	18 Months

[1] Period between application of this product and planting of the rotational crop.
[2] Seed for grain sorghum must be treated with Concep® (or an equivalent product safener) to provide tolerance to Metolachlor.

CROP USE DIRECTIONS

This product contains 3.26 pounds of metolachlor and 0.33 pounds mesotrione active ingredients (a.i.) per gallon. The equivalent amount of active ingredient contained in this product is shown below.

Amount of *VILLAIN* (Quarts per Acre)	Pounds of A.I. Contained in *VILLAIN*	
	Metolachlor a.i.	Mesotrione a.i.
0.75	0.61	0.062
1	0.81	0.083
1.2	0.98	0.099
1.25	1.02	0.103
1.6	1.30	0.132
2	1.63	0.165
2.4	1.96	0.198

CORN
(Field Corn, Seed Corn, Sweet Corn and Yellow Popcorn)

Apply *VILLAIN* preemergence for control of many annual grass and broadleaf weeds in field corn, seed corn, sweet corn, and yellow popcorn. This product may be applied early postemergence for the control of broadleaf weeds in field corn and seed corn. Refer to **Tables 1** and **2** for a list of weeds controlled or partially controlled by this product.

Application Timings

Burndown for Reduced Tillage Situations

In reduced or no-till corn and prior to crop emergence, *VILLAIN* may be applied alone or in tank mixtures with glyphosate or paraquat for the burndown of weeds that have emerged. Refer to **Tables 1** and **2** for specific weeds controlled. Read and follow all product labels for specific use directions and information on weeds controlled. Refer to the **Additives** and **Mixing Procedures** sections of the label for additional information.

Early Preplant and Preemergence

VILLAIN may be applied early preplant (up to 14 days prior to planting) or preemergence application in field corn, seed corn, sweet corn and yellow popcorn.

Postemergence

VILLAIN may be applied in field or seed corn after emergence until the plants reach 30 inches in height or up to the 8-leaf stage of corn growth. Use only clean water as the carrier when applying this product after crop emergence. Refer to the **Additives** section of this label for burndown adjuvant-information.

***VILLAIN* Use Rates**

Apply *VILLAIN* at a rate of 2.0 to 2.4 quarts per acre for control or partial control of weeds listed in **Tables 1** and **2**. The soil organic matter content of the field to which this product is to be applied must be known.

Table 4. *VILLAIN* Rates in Corn

% Organic Matter	***VILLAIN*** **Use Rate (quarts per acre)**
<3%	2.0
≥3%	2.4
Use of this product on soils with >10% soil organic matter is not recommended and may result in poor weed control.	

Tank Mixtures Preemergence Applications (before crop has emerged)
Tank mix partners listed in the **Table 5** may be used preemergence in conventional, reduced, or no-till systems. They may be applied by the same methods and at the same timings as ***VILLAIN*** unless specified in the tank mix partner product label. Follow all tank mix product labels for use rates, precautions and restrictions.

Table 5. *VILLAIN* Tank Mixtures for Preemergence Applications to Corn

TANK MIX PARTNER	PURPOSE
2,4-D	Burndown existing weeds
Atrazine	Improved broadleaf and grass weed control
Glyphosate	Burndown existing weeds
Metribuzin	Improved broadleaf weed control
Paraquat	Burndown existing weeds
Simazine	Improved broadleaf and grass weed control
Lambda-cyhalothrin	Insect control

Tank Mixtures Early Postemergence Applications (after crop has emerged)
Tank mix products listed **Table 6** may be used in conventional, reduced, or no-till systems. They may be applied by the same methods and at the same timings as ***VILLAIN*** unless otherwise specified in the tank mix product label. Follow all tank mix product labels for use rates, precautions and restrictions. Perform a compatibility test.

Refer to the **Additives** section of the label for information when applying this product in a tank mixture to emerged field corn.

Table 6. *VILLAIN* Tank Mixtures for Postemergence Application in Field Corn

TANK MIX PARTNER	PURPOSE
Atrazine	Improved broadleaf and annual grass weed control
Dicamba + Diflufenzopyr	Emerged grass control
Dicamba + Primisulfuron	Improved broadleaf and grass weed control
Glufosinate (only for corn hybrids designated as glufosinate-tolerant, e.g. LibertyLink®)	See ***VILLAIN*** **Programs in Glufosinate-Tolerant Corn** section of this label.
Glyphosate	See ***VILLAIN*** **Programs in Glyphosate-Tolerant Corn** section of this label
Nicosulfuron	Emerged grass control
Nicosulfuron + Rimsulfuron	Emerged grass control
Prosulfuron	Improved broadleaf and grass weed control
Prosulfuron + Primisulfuron	Improved broadleaf and grass weed control
Rimsulfuron	Emerged grass control
Rimsulfuron + Thifensulfuron	Emerged grass control
Lambda-cyhalothrin	Insect control

VILLAIN **Programs in Glyphosate-Tolerant Corn**
VILLAIN may be applied early postemergence at a rate down to 1.6 quarts per acre in tank mixture with a solo glyphosate product that is registered for use over-the-top in glyphosate tolerant field corn (e.g. Roundup Ready® or Agrisure® GT Corn).

To minimize weed competition with the crop, target application of this mixture to weeds that are 1 to 2 inches. If the glyphosate product has a built-in adjuvant system (the product label does not for additional adjuvant), only add spray-grade ammonium sulfate (AMS) at 8.5 pounds per 100 gallons to the tank mixture. If the glyphosate product label calls for an adjuvant in addition to AMS, add a non-ionic surfactant (NIS) at 0.25% v/v and AMS to this spray tank mixture. Read and follow all directions for use, precautions and restrictions on the tank mix partner glyphosate label.

Alternatively, this product may be applied preemergence at a rate down to 1.6 quarts per acre as part of a two-pass weed control program when followed by a postemergence application of a glyphosate-containing product in glyphosate tolerant corn. When used in this manner, this product will provide reduced competition of the weeds listed **Table 1** for a period of 30 or more days, improving the timing flexibility and effectiveness of the glyphosate-based product application. Follow all directions for use, precautions and restrictions on the glyphosate product label.

VILLAIN may be applied preemergence at 1.0 to 1.2 quarts per acre as part of a two-pass weed control system when followed by a tank mix of this product and glyphosate in glyphosate tolerant corn (e.g. Roundup Ready or Agrisure GT Corn). Apply this product at 1.0 quart per acre on soils with < 3% OM and 1.2 quarts per acre on soils with ≥ 3% OM. Read and follow all directions for use, precautions and restrictions on the tank mix partner glyphosate label.

VILLAIN Programs for Glufosinate-Tolerant Corn

Preemergence

VILLAIN may be applied preemergence at 1.6 quarts per acre as part of a two-pass weed control program when followed by a postemergence application of glufosinate in field corn designated as glufosinate-tolerant (e.g. LibertyLink). When this type of application is made, ***VILLAIN*** will provide reduced competition of the weeds listed in **Table 1** for a period of 30 or more days, improving the flexibility in application timing and effectiveness of the glufosinate product application. Follow all directions for use, precautions and restrictions on the glufosinate product label.

Postemergence

VILLAIN may be applied postemergence at 1.6 quarts per acre in tank mixture with glufosinate and applied over-the-top in field corn designated as glufosinate-tolerant (e.g. LibertyLink). To reduce weed competition with the crop, target application of this mixture to weeds that are 1 to 2 inches. Ammonium sulfate (AMS) may be added as an adjuvant as directed on the glufosinate label. However, AMS must be the only adjuvant used in this tank mixture. Follow all directions for use, precautions and restrictions on the glufosinate product label.

Precautions for all Corn Uses

- Severe adverse crop response and corn injury can result if applying this product postemergence to corn that has emerged and that has received an at-plant application of terbufos insecticide. Environmental conditions that promote poor growth will increase the likelihood and risk of severe crop injury.
- Severe corn injury can occur when an organophosphate or carbamate insecticide postemergence application is made to corn within 7 days before or 7 days after an application of this product. Environmental conditions that promote poor growth will increase the likelihood and risk of severe crop injury.

Restrictions for all Corn Uses

- **DO NOT** apply more than 2.4 quarts (2.00 lb ai metolachlor and 0.198 lb ai mesotrione) of this product per acre per year
- **DO NOT** apply this product to corn that is taller than 30 inches in height or corn that is larger than the 8-leaf stage of growth.
- **DO NOT** graze or feed forage from treated areas for 45 days following last application.
- **DO NOT** harvest corn for grain, forage, or stover within 45 days after a postemergence application of this product.
- **DO NOT** apply this product as a postemergence application in a tank mix with any organophosphate or carbamate insecticide, or severe corn injury may result.
- **DO NOT** make postemergence tank mixture applications with urea ammonium nitrate (UAN), crop oil concentrate (COC), non-ionic surfactants (NIS), or methylated seed oil (MSO) type adjuvants in these type of spray programs, or crop injury may result.
- **DO NOT** make postemergence applications in liquid fertilizer or severe crop injury will result.
- **DO NOT** make applications of this product to yellow popcorn or sweet corn after the crop has emerged, or crop injury may result.

GRAIN SORGHUM

This product can be applied preplant non-incorporated (up to 21 days before planting) through preemergence for weed control in sorghum that was seed treated with Concep (or equivalent safener that provides tolerance to metolachlor). For a listing of weeds controlled or partially controlled by this product, see **Table 1**.

Apply this product at a rate of 2.0 quarts per acre as a broadcast non-incorporated spray beginning at 21 days before planting through planting but prior to sorghum emergence. Applying this product less than 7 days before sorghum planting will increase the risk of crop injury especially if irrigation or rainfall is received following application. Injury symptoms include temporary bleaching of newly emerging sorghum leaves or in extreme conditions, stunting or partial stand loss. Applying this product more than 7 days (but not more than 21) prior to sorghum planting will reduce the risk of crop injury.

If this product is applied prior to planting, minimize disturbance of the herbicide treated soil barrier during the planting process in order to lessen the potential for poor weed control in the disturbed soil zone.

VILLAIN may also be applied as a split application to grain sorghum. For split application program, apply this product at 1.0 to 1.25 quarts per acre as a non-incorporated early preplant (7 to 21 days before planting) followed by a second application at the rate of 0.75 to 1.0 quarts of this product per acre as a preemergence prior to sorghum emergence. The total amount of this product applied in the split application program cannot exceed 2.0 quarts per acre.

If weeds are present at the time of application, adding a nonionic surfactant (NIS) type of adjuvant at a rate of 0.25% v/v or crop oil concentrate (COC) at a rate of 1% v/v to the spray solution will provide best results. In addition to COC or NIS, a spray grade UAN at a rate of 2.5% v/v or AMS at a rate of 8.5 pounds per 100 gallons of spray may be added to the solution for improved control of emerged weeds. If weeds are not emerged at the time of application, no additives are needed.

Sorghum Use Restrictions:

- **DO NOT** apply more than 2.0 quarts (1.67 lb ai metolachlor and 0.165 lb ai mesotrione) of this product per acre per application.
- **DO NOT** apply more than 2.0 quarts (1.67 lb ai metolachlor and 0.165 lb ai mesotrione) of this product per acre per year.
- Except for the split application, **DO NOT** make more than one application per year.
- **DO NOT** apply this product to sorghum that is grown on sandy soils (sand, sandy loam, or loamy sand).
- **DO NOT** this product to emerged grain sorghum or severe crop injury will result.
- **DO NOT** use this product in the production of forage sorghum, sweet sorghum (sorgo), sudangrass, sorghum-sudangrass hybrids, or dual-purpose sorghum.
- Sorghum seeds must be treated with Concep or an equivalent safener that provides tolerance to Metolachlor before planting, or severe adverse crop response and injury may occur.
- **In Texas: DO NOT** apply this product to sorghum grown South of Interstate 20 (1-20) or East of Highway 277.

STORAGE DISPOSAL

DO NOT contaminate water, food, or feed by storage or disposal.

Pesticide Storage

Store in original container. Keep container tightly closed when not in use. **DO NOT** store near seeds, fertilizers, or foodstuffs. Can be stored at temperatures as low as -10°F. Keep away from heat and flame. In case of spill or leak on floor or paved surfaces, soak up with sand, earth, or synthetic absorbent. Remove to chemical waste area.

Pesticide Disposal

Open dumping is prohibited. Waste resulting from the use of this product may be disposed of on site or at an approved waste disposal facility. Rinse spray equipment. 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

NONREFILLABLE CONTAINER (EQUAL TO OR LESS THAN 5 GALLONS): DO NOT reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. **Triple rinse as follows:** Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Offer for recycling, if available or reconditioning if appropriate or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

NONREFILLABLE CONTAINER (GREATER THAN 5 GALLONS): DO NOT reuse or refill this container. 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 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Offer for recycling, if available or reconditioning if appropriate or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

Pressure rinse as follows: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 psi for at least 30 seconds. Drain for 10 seconds after the flow begins to drip. 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.

REFILLABLE CONTAINER: Refill this container with pesticide only. **DO NOT** reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times. After triple rinsing is complete, and the container is not suitable for refilling or reconditioning, offer the container for recycling if available, or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures approved by state and local authorities.

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 INNVICTIS CROP CARE, 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 INNVICTIS CROP CARE, LLC and Seller harmless for any claims relating to such factors.

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Use of this product in certain portions of California, Oregon, and Washington is subject to the January 22, 2004 Order for injunctive relief in Washington Toxics Coalition, et al. v. EPA, C01-0132C, (W.D. WA). For further information, please refer to https://www.epa.gov/endangered-species/endangered-species-case-washington-toxics-coalition-v-epa.